

QUEEN AMONG QUEENS

The Power Behind The Throne



Norman G Hall

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The Cover: Award winning Monica Thors shot this USTA 1994 Standardbred Photo of The Year called "Silhouette". The photo depicts a group of Standardbred mares and foals gamboling across a rise and was taken at Kendall Hills farm in Campbellcroft, Ontario. Monica Thors of East Rutherford, New Jersey, is a well-known international photographer whose work has been featured in most of the top trade journals.

The work of Monica Thors is sought after by major breeding farms and Standardbred lovers generally. Her contribution to the sport of harness racing through her photographic skills makes her one of the leading ladies of the sport today.

DEDICATION

This book is dedicated to the mothers of Standardbred racing whether equine or human. Their dedication to, and support of, the male identity of the sport has long been ignored and they are truly deserving of credit and praise.

I reserve my special praise and thanks for the ladies who have helped me to set the record straight –

To Marg Neal – the Queen Mother of Pedigrees, who has done so much to assist pedigree research worldwide.

To Dr. Moira Gunn, President of Armstrong Bros, and a shining example of dedication to the sport.

To Monika Thors whose equine photography inspires and thrills everyone.

To Gail Cunard, the tireless curator of our history at the Hall of Fame of the Trotter in Goshen.

And especially

To my wife Phyllis, who for the past several years has lived the life of a pedigree widow, for which I humbly apologize, and recognize that without her support and encouragement this book would never have happened.

Thank you each and everyone.

Norman G Hall

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The Wisdom of Marg Neal

“The purpose of doing the paperwork is to produce the individual. Once the individual is on the racetrack, it doesn’t matter what the pedigree is. I’ve always talked about breeding for dominance – finding the individual that is the strongest aspect of the mare’s pedigree, then finding the stallion that has that individual in a certain place in his pedigree.”

“We have been conditioned by the restriction of catalogues and advertising to view our horses, at most, as three generation animals. There are a great many people out there today that will tell you there is no reason to look beyond the grandparents of any animal. I thoroughly disagree. It is, however, a handy position to take for those unwilling to do their homework”

“There is a model of breeding that is like a pattern, and the pattern persists over generations, although, of course, the names change. I like to see a mare that is inbred, and a sire that is not.”

Hoofbeats, September 2001

FOREWORD

Modern day pedigree writers seem to spend most of their time on the What, When and Who of the horses they discuss, as in what did the horse do to be so special, when did it race, and who bred, owned, trained or drove it? In so doing they lean toward anecdotal accounts and stories and they seldom attempt to write about the Why, as in why did the pedigree of the horse work? – at least not in any consistent or believable fashion - until now that is.

Finally we have a writer, in Norman Hall, whose contribution should help to answer the Why.

What I like about this book is that it reads like a detective story, laying out threads of evidence in a manner that is historically interesting, wholly convincing and also very entertaining, and then weaving them into a solid case to back the arguments presented.

As a Veterinarian I can appreciate Norman's scientific approach to what most would consider a distinctly unscientific subject – the study of pedigrees and their contribution to the production of top performing standardbreds. Just as illness and lameness in horses can result from one or more factors in the genetic makeup of the individual, so

too can good things happen when the right combination of bloodlines and their genetic heritage is achieved.

The premise of the book is also one that I can, as a woman in a male dominated sport, very much appreciate. I have always thought that the contribution of the maternal bloodlines, or as Norman calls it, "the maternal identity", is largely overlooked by most breeders and buyers. I suspect that after reading this book the phrase "the bottom line" will take on a whole new meaning when applied to the breeding or purchasing of standardbreds.

This ground breaking book, coupled with Norman's innovative and industry leading pedigree software, which has been used extensively throughout, takes pedigree research to a new level that can only result in the continued improvement of the Standardbred breed.

Dr. Moira Gunn,
President,
Armstrong Bros.

INTRODUCTION

In writing a book on the pedigree of the Standardbred horse, one is acutely aware of the many successful breeders throughout the world who have their own ideas and opinions on what is good or bad in terms of pedigree.

My own personal experience in the breeding business, such as it was several years ago, certainly did not result in any degree of success. It did, however, arouse my engineering interest in finding out why success eluded me. After all I had followed the suggestions of knowledgeable and successful breeders by breeding to the best sires available in my area, but to no avail.

After a dozen years of researching the pedigrees of the Standardbred horse from its earliest beginnings I am still not sure if there is any secret formula to follow but at the same time there are clearly patterns and statistics relating to pedigree that seem to repeat themselves given the right set of circumstances. One of those circumstances that I met up with again and again was the presence and position in the pedigree of certain noteworthy females. While this was evident it was not, however, what I was looking for at the time.

Like most would-be pedigree pundits I started off with an emphasis on the Sire lines, looking for the so-called golden crosses and line breeding relationships, the 3x4's and 4x5's, that are tossed about in the literature. I came up with nothing that could satisfy my search for the consistent and factually based relationship that my engineering background insisted was there – somewhere. The breakthrough came with the appearance of several articles and books on sex based genetic factors and the implication that there was more to the Dam side of the pedigree than meets the eye.

This book is the result of several years, and the study of thousands of pedigrees, in search of what I call the “Maternal Identity” of the Standardbred. It is my hope that what I have documented will result in a broader appreciation of the contribution of the maternal lines to the success of the mating.

In the words of John Wallace *“It is in no spirit of banter or bravado that I invite criticism in a gentlemanly and courteous way. I am just as liable to be wrong as other men, and when wrong it is for my own good as well as for the public, that I should be set right.”*

Norman Hall

IN THE BEGINNING

THE DAWN OF RACING

You could say that the greatest horse breeder of all time was Noah, he of Ark fame. After all he was the man who picked out the two horses that started it all. Regardless of whether you believe this to be true you have to acknowledge that there had to be two horses, a male and a female, to get things started somewhere. And therein lies a tale.

In recent years, and even stretching back to the origins of competitive horse racing in the early sixteen hundreds, there has been a tendency to emphasize and indeed glorify the contribution of the male horse or sire. Those who are familiar with horse breeding can likely rhyme off which sire lines are important or popular but what about the female side of the equation? It takes two to tango or perhaps we should say that it takes A + B to equal C. The latter appeals to me because of my engineering background where we are taught that everything in this world is the result of a relationship between two or usually more identities.

After many years of studying the pedigrees of both Standardbred and Thoroughbred horses it is my conclusion that the maternal identity in the horse

equation is at least as important as, and perhaps more so than, that of the sire.

We have all heard sayings that give support to this general feeling such as "*Behind every good man there stands a good woman.*" Even in this statement, however, is the implication that the maternal influence is in the background and therefore of lesser importance.

Getting back to Noah and his Ark, which landed back on dry ground somewhere in the Middle East, it is generally acknowledged that the origin of the race horse as we know it now, whether Standardbred or Thoroughbred, lies in the loins of Arabian horses imported to England during the seventeenth century.

Peter Willett in his book *The Thoroughbred* details the history of that breed and in so doing gives an excellent account of the development of the Thoroughbred racehorse from its beginnings in England..

The first *General Stud Book* of England lists one hundred and three stallions that were imported or of entirely foreign pedigree. About 50% of the stallions were Arabians, and 25% each of Turks and Barbs.

Names like The Byerley Turk, The Godolphin Arabian and The Darley Arabian are recognized by pedigree buffs as those of the sires from which all racehorses descend on male line.

The earliest of the three male line progenitors of the Thoroughbred was The Byerley Turk. Unlike the others, he was a spoil of war, since he was captured by Captain Byerley in Turkey.

The Godolphin Arabian was a brown horse foaled in 1724 and remarkable for his longevity since he was twenty-nine when he died at Lord Godolphin's estate. He was reputed to have been one of four horses presented to the King Of France by the Bey of Tunis and subsequently sold to an Englishman called Edward Coke and then resold to Lord Godolphin from whom he acquired his name.

The Darley Arabian, foaled in 1700, came from Aleppo in North Africa. Thomas Darley, an agent for the British Consul in that city, sent the horse back to his brother Richard to stand stud in England.

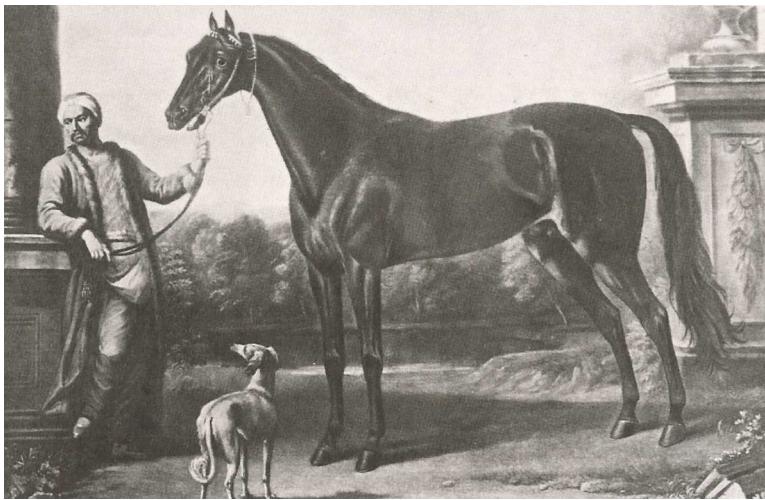
None of these "*legends of the turf*" ever raced and indeed few of the imported Eastern horses ever set foot on a racetrack and if they did they showed little racing ability. Their use by the most discriminating breeders in England during this period is puzzling in light of their lack of racing credentials. It was not the

speed of the Arabians and Barbs but their prepotency, resulting from centuries of selective breeding, which was the attraction. When bred to the motley assortment of racing stock then in existence, the result was a significant improvement in type and the consequent ability to thereafter breed to that type.

There have been many books written on the origins of the racehorse among which John Hervey's *The American Trotter* stands as one of the most comprehensive and educational. Published in 1947, the book covers the beginnings of the Standardbred breed in North America. In so doing the author reaches back into the beginnings of the horse as a beast of burden and its development into the racing horse.

According to Hervey the first evidence of trotters dates back to 1350 BC and comes from Turkey in an area once know as Cappadocia. The evidence uncovered in this archaeological site shows that systematic training and racing of trotters was carried out for many years using the Oriental horses of the day. Hervey writes the following in linking the early trotter to other breeds.

"That this region was the real cradle of the breeds now known as Arabians, Turks and Barbs may be considered certain."



(Top Right) *The Darley Arabian was a bay horse with a white blaze and three white feet, and was bought by Thomas Darley in Aleppo, North Africa. He is the father of the Standardbred breed from whom all trotters and pacers trace their sire line.*

(Top Left) *The Byerley Turk was the first of the founding fathers of the Thoroughbred*

(Bottom Left) *The obscure origins of the Godolphin Arabian gave rise to romantic legends.*

Source: The Thoroughbred by Peter Willett

According to Hervey the first chariot races took place in Greece around 1000 BC while under saddle races awaited the evolution of the horse to greater size several hundred years later. These races, however, were conducted on the gallop and what happened to the Cappadocia trotter is a subject of speculation only other than it may well have resulted in the latent trotting ability of the Thoroughbred as an inheritance from its Oriental ancestors. From that time on little is known of the evolution of the trotter until the early 1700's when the Norfolk Trotter surfaced in England.

Even less is known of the evolution of the pacer although Barbara J Berry, in her book, *The Standardbreds*, makes a valiant attempt at tracing the origins of the pacer to the North of England in the early 1600's where the Irish Hobbies and the Scottish Galloways were the favorite riding horses. Both types were known for their preference for the pacing gait, although it could be more correctly described as an "ambling" or single footed gait.

John Wallace, the founder of the modern day Standardbred register and compiler of the first documented pedigrees of trotters and their performance in North America in 1879, was an advocate of the pacing breed as being the origin of the trotter. He managed to find a reference to pacing in a quotation from the works of a Canterbury monk named Fitz Stephen that reads as follows:

"There is without one of the gates, immediately in the suburb of London, a certain smooth field in name (Smithfield) and reality. There every Friday, unless it be one of the more solemn festivals, is a noted show of well bred horses exposed for sale. The Earls, the Barons and the Knights as well as most of the citizens, flock thither either to look or to buy. It is pleasant to see the nags with their sleek and shining coats, smoothly ambling along, raising and setting down, as it were, their feet on either side. In one part of the field are horses better adapted to the esquires, those whose pace is rougher, yet expeditious, lift up and set down, as it were, the two opposite fore and hind feet together."

So it would seem that pacing and trotting existed in England before the year 1191, that being the date of Fitz Stephen's own passing. Wallace stirred ongoing controversy throughout his lifetime and beyond by clinging to the pacer as the source of trotting speed. His many opponents in this debate were just as adamant that trotting was a natural result of interbreeding Thoroughbreds with a tendency to trot.

The answer as to which came first, the trotter or the pacer, is probably irrelevant by now as they are both recognized as part of the Standardbred breed as we know it today.

MOTHER OF MOTHERS

Somewhere in the mists of time there had to be a female that gave birth to the horse that led to the racehorse of today. The case for such an “*Ancestral Mom*” is made in the book *Inbreeding To Superior Females* written by Romy Faversham and Leon Rasmussen. This recent publication is an excellent history of the evolution of the Thoroughbred and the influence of the maternal identity for that breed.

According to Faversham and Rasmussen the Ancestral Mom is a mare called The Spanker Mare foaled around 1690 in England. In introducing this epochal female the authors write

“ We have no official record of her name. There are no oils or sculptures of her likeness to celebrate the importance she has had on the breed. She is the single most influential ancestor throughout the evolution of the Thoroughbred and yet reference to her legacy amongst centuries of turf accounts has been remarkably limited. This unnamed daughter of the seventeenth century stallion Spanker produced the family of sires and dams most responsible for the shaping of the newly developing racehorse. It was, in turn, the inbreeding to this ancient broodmare that was the key difference between lines that survived and those that did not”

She was bred by Lord James D’Arcy, stud master for King Charles II of England. To that extent she was “*royally bred*”. The most remarkable part of this mare, however, is her pedigree which has been authenticated and included in the first published stud book in England.

She was the product of a stallion bred to his own dam. The Old Morocco Mare is the dam of both Spanker and The Spanker Mare by her son Spanker. When it comes to inbreeding this is as close as it gets.

D’Arcy’s Chestnut Arabian
Spanker

Old Morocco Mare
SPANKER MARE

Morocco Barb
Old Morocco Mare
Old Bald Peg

Conventional wisdom would dictate that her offspring would be at the very least quite strange and possibly worse. The creators of such a monstrosity, it would appear, were not satisfied to leave well (or ill) enough alone and proceeded to breed a son of Spanker called Old Careless to a daughter of The Spanker Mare called Cream Cheeks to produce Betty Leedes.

In later years there were several attempts by turf authorities to discredit the breeding of Betty Leedes

and her inbred granddam: In the book *A History Of The General Stud Book* the author notes that:

“ This pedigree gave strong moral offense to C M Prior (a pedigree expert of the day) who doubted that the ordinary canons of affinity had been disregarded by so eminent a breeder as Mr Leedes”, (the breeder of Cream Cheeks).

Prior offered his own version of the ancestry of Betty Leedes that removed the inbreeding that he found so offensive. Rasmussen notes that:

“ Raised in Victorian England, C M Prior may very well have understood the enormous role The Spanker Mare played in the evolution of the Thoroughbred, only to be disgusted by her breeding; the cross of a stallion bred to his own dam. This apparent attempt at a cover up may help to explain why her significance in the literature has been underplayed.”

The attempts by Prior and others to rewrite history were unsuccessful, however, and the pedigrees of Betty Leedes and the Ancestral Mom remain as first recorded.

Betty Leedes was bred twice to a horse called The Darley Arabian, an Arabian horse brought to England in the early 1700's. These breedings produced two stallions called Flying Childers and Bartlets Childers, sometimes referred to as “The Brothers Childers”.



Flying Childers by the Darley Arabian. Source : The Thoroughbred

Flying Childers, born in 1715, is noted in several historical records as “*the first great racehorse*”. Unbeaten in five starts he was described as “*the fleetest horse that was trained in this or any country*”. As a sire of broodmares Flying Childers had no peers in his day but it is his legacy as the founding sire of the North American Standardbred that is his most recognized attribute.

Bartlets Childers was a noted “*bleeder*” and did not race. This did not, however, prevent him from spawning the sire line through the great Eclipse that is responsible for most of the top Thoroughbreds of today. He too was noted for his prolific daughters.

Unknown

Darley Arabian

Unknown

Flying Childers

Betty Leedes

Cream Cheeks

Spanker

Careless

Barb Mare

Leeds Arabian

Spanker

Spanker Mare

Darcys Chestnut Arabian

Old Morocco Mare

Unknown

Unknown

Unknown

Unknown

Spanker

Old Morocco Mare

Unknown

Unknown

Morocco Barb

Old Bald Peg

Unknown
Unknown
Morocco Barb
Family No Six

Darcys Chestnut Arabian

Old Morocco Mare

Morocco Barb

Old Bald Peg

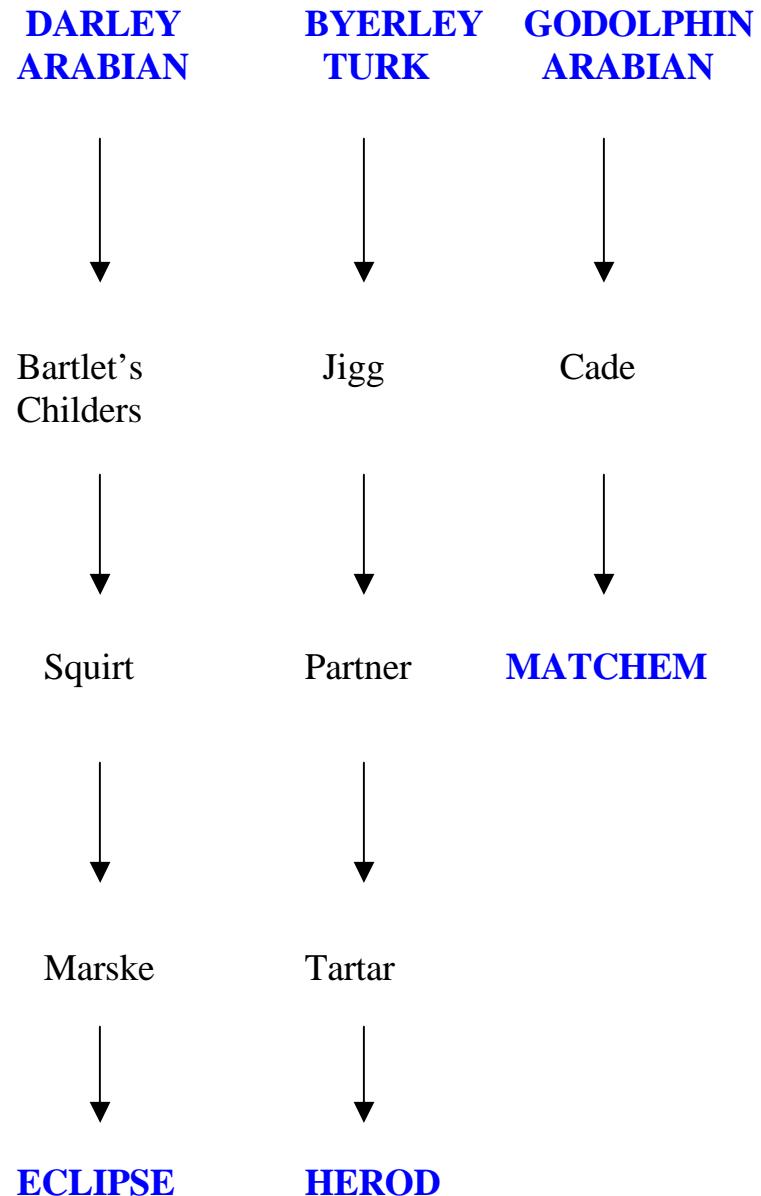
Unknown
Unknown
Morocco Barb
Old Bald Peg
Unknown
Unknown
Morocco Barb
Family No Six

The pedigree of Flying Childers. Source: Inbreeding to Superior Females

Two other sire lines of the day were begun by The Byerly Turk and The Godolphin Arabian, like The Darley Arabian, imported to England from the Middle East. The Byerly Turk is known as the tail male for the Thoroughbred sire line that descends through Herod while The Godolphin Arabian line extends through the great Matchem. What is interesting to note is that Eclipse, Herod and Matchem all have The Spanker Mare in their pedigrees through either their sire or dam or through both. This is, in fact, a feature of the pedigree of every living Standardbred and Thoroughbred of today.

It is the presence, and impact, of such a feature in the maternal lines, however, that is the subject of this book, and the manner in which the blood of the Brothers Childers has spread through the world's broodmare community and then returned to these same sire lines to create the modern day Standardbred is a remarkable story indeed.

In order to tell that story, we must put the evolution of the trotter and pacer into a historical context so that the reader can understand and appreciate not only the major contribution of the Thoroughbred in establishing the sire line to which all Standardbreds trace, but also the variety of other trotting and pacing breeds, in addition to Thoroughbreds, that provided the maternal identity so critical to success.



Below: *Flying Childers* by James Seymour. Source : *The Thoroughbred*

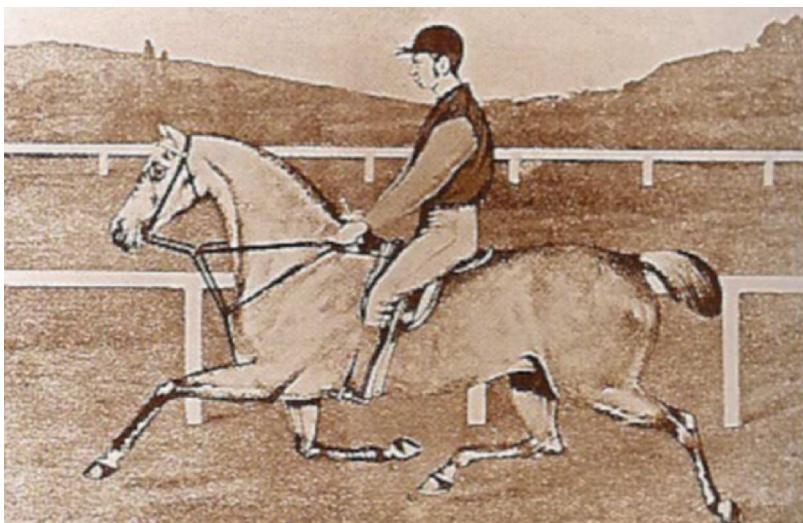




Above: This painting by John Frederick Herring depicts the English roadster Confidence in the great sporting tradition of English trotting horses.
Below: The old Norfolk roadster also trotted under saddle



The Don horses of Russia developed in the 1700's and were historically hitched to a Quadriga. The outside horses cantered while the center pair trotted. Bred for endurance they could travel up to 170 miles in one day.



This picture from a tomb of the Han Dynasty shows that the Chinese had sophisticated wheeled vehicles as early as 1300 BC.
Source: *The Encyclopedia Of The Horse*

FOUNDATIONS OF TROTTING

THE EUROPEAN BREEDS

The trotting gait is natural to most horses but trotting at speed is not. The ability to establish and maintain speed at the trot, sometimes referred to as the “*trotting instinct*”, and indeed on the pacing gait, is essentially hereditary but can also be a learned trait that comes from extensive training. While trotters have always been favored as a carriage or harness horse, the pacing or ambling gait was traditionally regarded as the more comfortable and efficient gait for riding particularly over long distances. This ambling ability, as was noted earlier with the North England Galloways and the Irish Hobbies, has been a feature of certain breeds for centuries.

In his 1947 book, *The American Trotter*, John Hervey, after reviewing the literature of the day, concluded that:

“There is no breed or variety of trotting race horses of which we have any knowledge between those of Cappadocia of 1350 BC and those of the United States, Standard as such from 1879 onward.”

While this may be true with respect to the conduct of organized racing on the trot or pace by horses registered to do so, more recent research seems to show otherwise as much more is now known of the trotting and racing

history of the European breeds that have the “*trotting instinct*”.

THE FRIESIAN

This breed of trotters is amongst the earliest known. The Roman historian Tacitus recorded the existence of the Friesian prior to 120 AD. He remarked on its value as a powerful all round horse and also on its exceptional ugliness. Refined over the years by the introduction of eastern bloodlines during the Crusades the breed, however, retained its reputation for endurance, strength and thriftiness.

Because of their geographical location on the north coast of The Netherlands, the Friesian people were noted seafarers and traders, dealing in horses among other things. As a result they introduced the Friesian horse breed to countries farther afield.

The Dole Gudbrandsdal of Norway, also known as the Norwegian Coldblood, is derived directly from the Friesian as are the Swedish Coldblood and the Finnhorse of Finland, all trotting breeds with similar physical characteristics. Other connections claimed for the Friesian horse by Danish author G.J.A. Bouma, include a Friesian as the dam of Bars, the founding sire of the Orlov trotter in Russia.

There is even a connection to the evolution of the Standardbred in North America since Friesian horses were taken to the colony of New Amsterdam – now known as New York – in 1625 by the Dutch settlers. Barbara Berry notes in her book *The Standardbreds*

“That the English and Dutch horses were eventually interbred has been well established. These crosses, plus the infusion of Thoroughbred blood created the Standardbred.”

The Romans, during their occupation of Britain, used the Friesians as mounts and these horses in turn became the forerunners of a number of the pony breeds of Britain. In later times the Friesians, now much modified in type by crosses with the Andalusian horses of Spain, during that country's occupation of The Netherlands, were reintroduced to Britain as coach horses whose speed and high stepping action on the trot was in great demand among the landed gentry and nobility. Subsequent crosses to native English stock, including the Thoroughbred, led to the evolution of the Norfolk Trotter and his showy descendant the Hackney Pony.

The 2001 edition of *The Encyclopedia of The Horse* describes the Friesian as black in colour, compact, with round and very powerful shoulders, a mane and tail that is thick and luxuriant with feathering on the lower legs supported by hard hooves of blue horn that are sound and well formed. While this is a modern

version of the breed characteristics, the historical descriptions are remarkably similar and demonstrate the prepotency of this breed with respect to type over almost 2000 years.

THE NORWEGIAN COLDBLOOD

This breed of trotter, originally known as the Dole Gudbrandsdal, based on its origin in the central valley of the same name, has been the “utility” horse of Norway for many centuries. Originally of a heavier build it has evolved into the Norwegian Coldblood trotter primarily through crosses to an imported English Thoroughbred called Odin brought to Norway in 1834. The Dole Trotters look very similar to the Fell ponies of England and thus reflect their common background of Friesian heritage.

Trotting races first started in the 1830's held on frozen lakes and rivers and by the turn of the century the Coldbloods were racing against other trotting breeds. Separate races were established soon after and since the advent of the Standardbred into Scandinavia the studbook has been closed to protect the breed. As a result the Dole Trotter is, and has been, of little influence, in the development of the Standardbred trotter elsewhere, although both the Swedish Coldblood and the Finnish equivalent, the Finnhorse, owe much of their racing ability to their Norwegian origins.

THE ORLOV TROTTER

Another breed of trotters that has had little impact on the origins of the American Standardbred and has made only a modest contribution to trotting in Europe is the Orlov trotter of Russia. Trotting in Russia today is conducted in three categories, Orlov, Standardbred, and Russian Trotter, the last being a recognized breed that combines both Orlov and Standardbred bloodlines.

The Orlov is, as noted by R. I. Mill in a 1993 article in the USTA publication Hoofbeats, “*the most handsome of the breeds used in Russia*”. The beginning of the Orloff (Orlov) breed can be traced back to 1772 during the war between Russia and the Turks when Count Orlov was presented with an Arabian stallion called Smetanka as a gift for releasing some prisoners of war. Over the next 20 years Count Orlov set about establishing a new breed by crossing Smetanka with various mares including the Dutch Friesian. In 1792, the stallion Bars, acknowledged as the foundation sire of the Orlov breed was foaled from such a mating.

Count Orlov founded the first racecourse in 1790 on the Donskoe Field in Moscow. The length of the course was 2 versta (2132m) and there were races bimonthly during the summer season.

The Moscow Association of Trotter Fanciers was founded in 1834 and it built the first racecourse for trotters on Khodinskiy field, now called The Central Moscow Hippodrome. At first the racecourse was used for testing of Orlov trotters only. The Orlov trotter became dominant in early harness racing in Russia although the breed was initially popular as roadsters. The American Standardbred made an appearance in Russia at the end of the 19th Century and so dominated contests against the Russian breed that the demand for American bloodlines initiated the development of the “*Metis*” or Russian trotter. John Hervey has an interesting account of these early years in his book *The American Trotter* beginning with the racing career in Russia of a Minnesota bred mare called Polly, foaled in 1878.

“Her career in Russia was a prolonged series of triumphs, as she proved able to beat the Orlov champions at any hitch, over any distance or kind of footing. Her performances thunderstruck the Russian horsemen.”

While the Orlov remains a protected species in Russia with a closed stud book, the Russian Trotter has shown up in the pedigrees of Scandinavian horses in recent years and the daughters of Russian sires are now contributing in a modest way to the international breeding scene particularly in Sweden and Finland.

THE NORFOLK TROTTER

The Norfolk Trotter, who traces back on his male line to Flying Childers, as does Hambletonian, is sometimes known as “*the Standardbred’s Forgotten Ancestor*” as described in a Hoof Beats 1989 article by Sharon Smith. This article traces the evolution of the Norfolk Trotter as a high stepping carriage horse that preceded its more familiar descendant the Hackney. According to Sharon Smith the line of Norfolk Trotters descended as follows:

“ When bred to a good part-Arab mare in 1733, Flying Childers sired a horse named Blaze, who proved to be a useful runner in the 1730s and 1740s. He later stood at stud in Newmarket, England. Among Blaze’s offspring was Sampson, who – although this was before the first Thoroughbred stud book – is considered a Thoroughbred. Sampson was the great grandsire of Messenger. Blaze not only sired Sampson but also a horse who became the foundation sire of the Norfolk Trotter, in whom trotting speed was not just a hidden gene but an observable reality.”

That other horse was Shales and his two sons, Scot Shales foaled around 1760 and Driver, became famous as trotters and sires of trotters. Scot Shales sired Hue And Cry, who trotted the first three-minute mile around 1780. Driver sired a line of trotters known generally as the Fireaways and it was this line

that was largely exported to France. The first of the Fireaways was known as Jenkinson’s Fireaway who was advertised as having trotted a two-mile course on a public road in five minutes. Since this occurred around 1800 it makes Jenkinson’s Fireaway the first 2:30 trotter in history almost 70 years before John Wallace established that same 2:30 standard for entry into the American Trotting Register.

Among his sons was Burgesse’s Fireaway who became known as the fastest trotter in the land and in turn sired a horse originally named the Norfolk Cob but also known as The Norfolk Phenomenon. He was a foal of 1819, out of a mare from the Shales family. He in turn sired another horse by the same name, The Norfolk Phenomenon, and it is this horse and his daughters that created such a revolution in French trotting in the mid 1800’s. When bred to French and English Thoroughbreds they were responsible for producing four of the five original French trotting sire lines around the same time that Hambletonian was creating his own siring legacy in North America. I mention Hambletonian in this context because his own dam, the Charles Kent Mare, was by a Norfolk Trotter descendant of the Jenkinson’s Fireaway branch called Jary’s Bellfounder, born in 1816 and imported to North America in 1822. The contribution of the Norfolk Trotter to the development of the American trotter and indeed the French trotter is certainly something to be recognized and appreciated

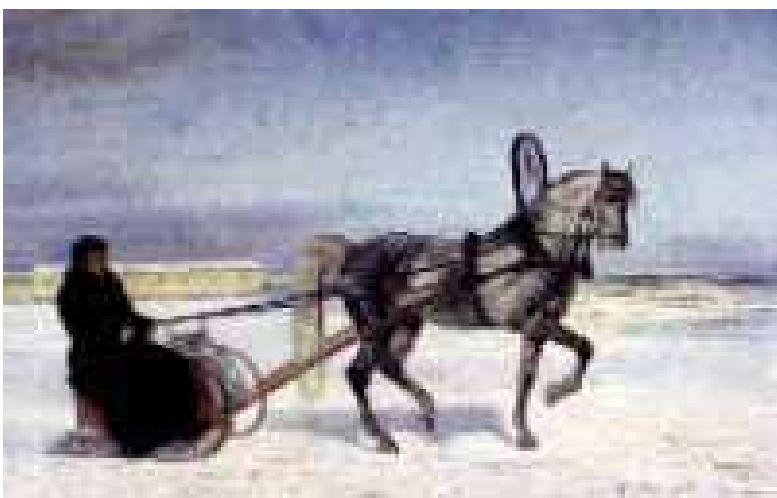


The high-stepping action shown by this Friesian, as part of the Royal Golden Whip race in April at Holland's Wolvendaal Racetrack, can be seen in the flashy gait of some of today's Standardbred trotters.

William Huybers



Above: Today's Friesians are raced under saddle and in traditional gigs.
Top Right: Dappled grey Orlovs are highly prized as race horses.
Bottom Right: The Norwegian Coldblood racing in winter
Below: The Orlov roadster



Below: The French Trotter exhibits a long powerful stride with perfect balance. Source: Annuaire des Etalons Trotteurs 2002



THE FRENCH TROTTER

The French Trotter is essentially a product of Normandy where horse breeding has been a traditional and almost inherited skill since before the 12th century. The Norman stock in the early 1800's consisted of all-purpose horses bred primarily for military duty and played a large part in the Napoleonic Wars. With the defeat of Napoleon at Waterloo in 1815 the breeders of Normandy had to adapt the breed for both riding and light harness use and turned to similar breeds in England that already had acquired such reputations.

Importation of Thoroughbreds and Norfolk Trotter stock quickly improved the progeny of Norman stock with respect to conformation and movement. Young Rattler, foaled in 1811, by the Thoroughbred Rattler out of a Norfolk Trotter mare, was the first of the imports to establish a sire line and is often called the French Messenger. Ultimately five foundation sire lines were to appear with Conquerant, Fuschia and Normand tracing to Young Rattler; Lavater, a son of a Norfolk Trotter called Crocus, a direct descendant of Driver; and Phaeton combining The Heir Of Linne, an English Thoroughbred sire, with a Norfolk Trotter dam. The Norfolk Trotter mares are perhaps the greatest legacy of this breed to French trotting especially those by The Norfolk Phenomenon.

One of the greatest French horses of all time is Ideal du Gazeau who traces his maternal line directly to such a mare.

Other Thoroughbred sires imported from England have made their mark on French breeding and in particular those with maternal connections to the Ancestral Mom, the Spanker Mare. Their daughters form an important part of the development of the female identity of the French Trotter. Two of the most important are Sir Quid Pigtail and Tipple Cider. The same can be said for several Thoroughbred mares that appear frequently in the pedigrees of the top French performers of today. These include Perce Neige born in 1875 and the more recent Gladys foaled in 1928.

With the exception of early imports prior to 1937, a brief period during the 1960's, and some recent limited American/French breedings the French studbook has been essentially closed to imports of North American trotters. This has not stopped the few who broke through this barrier from making a lasting impression on the breeding of the French Trotter. The Great McKinney, Sam Williams and Calumet Delco were three of the sires that left their mark in the 1930's and have established a continuing presence both as sires and as broodmare sires. In more recent times the mating of the great French mare Roquepine to Stars Pride produced the exceptional sire Florestan.

THE NORTH AMERICAN BREEDS

A PATCHWORK QUILT

According to author Peter Willett, in his book *The Thoroughbred*, there were no horses on the American continent prior to 1519, since the prehistoric ancestors of the horse that once lived there had all died out. The later evolution of the horse had been confined to Europe, Asia and Africa.

The Spanish conquest of Mexico changed everything as Cortes brought sixteen horses with him as the first representatives of the species to set foot on the continent in thousands of years. These were the forerunners of the mustangs that soon populated the plains of America.

When the Dutch arrived in the 1600's in New Amsterdam, now called New York, they brought their Friesian workhorses with them and they too added another thread to the equine fabric of the New World.

The arrival of the Narragansett pacers, courtesy of a shipwrecked cargo bound for the West Indies from England, later in the century, added yet another piece to the patchwork quilt of horse breeds that was available to the early settlers. The Narragansetts were so named for the Bay where they came ashore.

When the English arrived to capture the colony of New Amsterdam, the new English governor of the colony promptly laid out a racecourse on Hempstead Plain on Long Island and by 1670 the races came to America. The breed of horses raced is unknown but the interest in racing soon turned to the breeding of better horses using practices still evolving in England.

In 1730 the first Thoroughbred stallion was imported into Virginia from England by the name of Bulle Rock, alleged to be a son of the Darley Arabian from a mare by the Byerley Turk.

He was followed in short order by such sires as Jolly Roger, Janus and Fearnaught, all of which made a contribution to the origins of the North American Thoroughbred and can be found in the maternal lines of the early American Standardbreds also. Janus, the compact fourteen hands horse with the big heart, became the founding sire of the Quarterhorse breed.

It was at the turn of the century in 1799, however, when the biggest development in racing occurred with the importation of Medley and Diomed. Here at last was the material to bind the patches of the quilt together. The story of Diomed is one of the most extraordinary of any racehorse in the world.

Diomed was the first winner of the Derby in 1780. He was not a successful sire in England, but he became one of the principal founders of the American Thoroughbred and a major force in the maternal identity of both Thoroughbred and Standardbred breeds. Source: The Thoroughbred.



DIOMED was born in Newmarket, England, and it was there that he made his greatest impression as a racehorse when he captured the first running of the Derby to cap off an unbeaten three-year-old season.

That year, however, was to be the acme of his career in England. He struggled on the track for the next three years before being retired to stud. He quickly lost whatever was left of his racing reputation and gained another one as a failure as a stallion and by 1798 his usefulness as a stallion was apparently at an end. A Virginian named John Hoomes bought Diomed for 50 guineas. On the arrival of Diomed in Virginia, his new owner promptly sold him for almost twenty times his earlier purchase price.

Spillett notes “*Diomed, superannuated in England and dismissed as worse than ineffectual, could hardly have entered the Virginian stud in less auspicious circumstances. He quickly gave the lie to his critics.*”

At the age of twenty-nine, his last year at stud, he was still perfectly fertile and served a book of mares for a fee of fifty dollars. He died in 1808 at the age of thirty-one.

Standing for only eight years he left a great legacy. By 1843 the best records of mile heats for American Thoroughbreds, up to that time, had been taken by direct descendants of Diomed. Out of the 90 best

records at all distances the holders of 61 of them traced directly to Diomed while the dams of 13 of the others were descendants of his. He had four sons in particular whose offspring are found in the foundations of the Standardbred families.

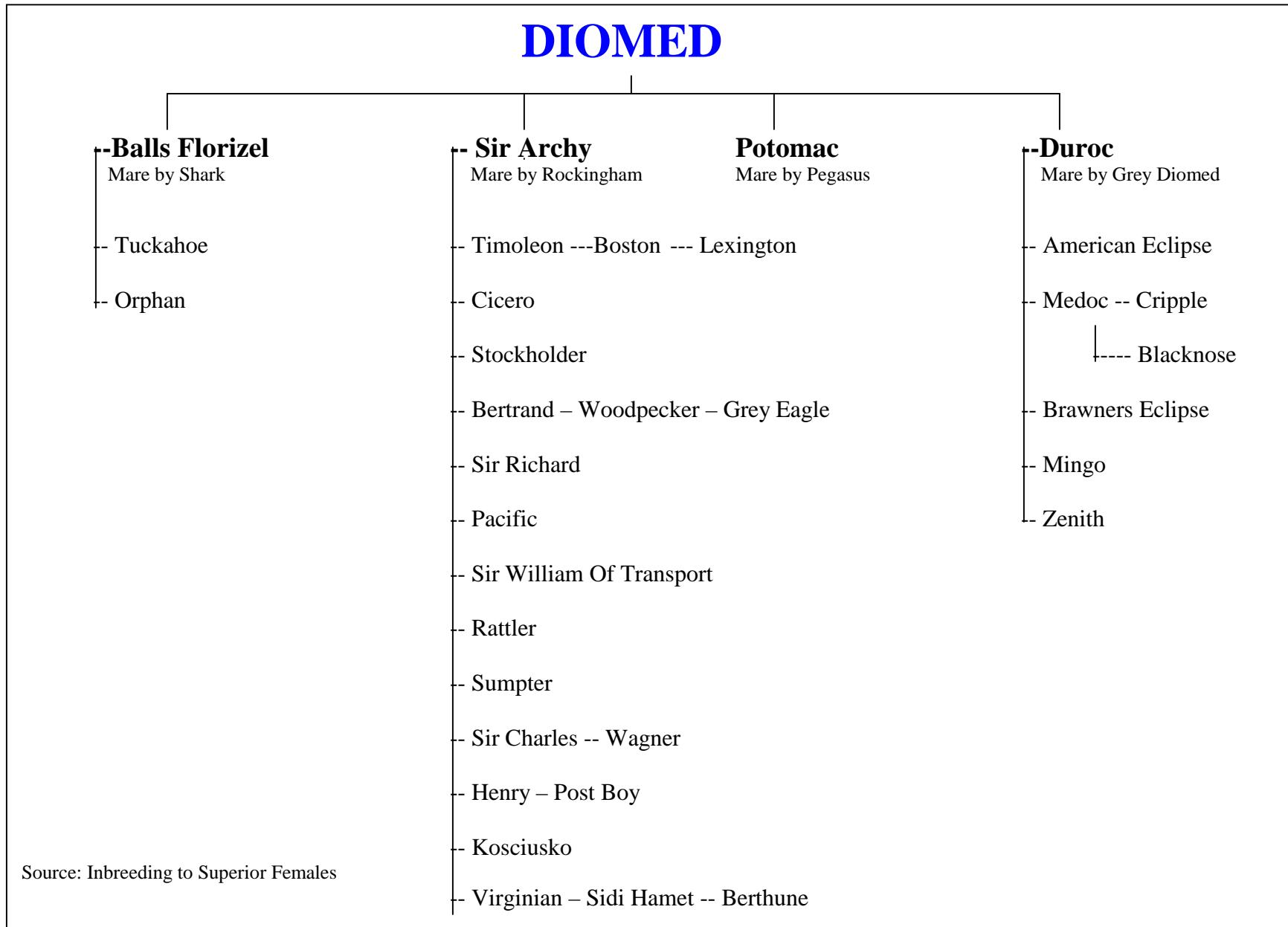
His best son was Sir Archy, a striking bay of sixteen hands who raced every bit as well as he looked, especially in races over four miles or in four – one mile heats at which he proved unbeatable.

His trainer said of Sir Archy that “*Sir Archy is the best horse I ever saw, and I well know that I never had anything to do with one that was at all his equal*”



Sir Archy – by Martin Stainforth. Source: The Thoroughbred

Paternal Legacy of Diomed. Daughters of these sires are prominent in the maternal lines of the early Standardbred maternal families



THE THOROUGHBRED WITH THE TROTTING INSTINCT

The story of Hambletonian and his grandsire Messenger, an English Thoroughbred, has been told many times. Messenger was a direct descendant of Flying Childers and was imported to North America in 1788. A foal of 1780 he is credited with being the foundation sire of the Standardbred in North America. The authoritative account of the life and times of Messenger is the 1935 publication *Messenger, The Great Progenitor* by John Hervey. This book details his career as a racehorse in England where he won 10 of 16 starts with total earnings of 1,473 guineas or about \$7,400, and goes on to recount his stud career in North America leading to the birth of his storied grandson Hambletonian.

It is through Hambletonian that all current sire lines in North America trace. There have been many accounts of this famous sire and again it is John Hervey, in *The American Trotter*, that we turn to for the authoritative account of his early years and his fabled career as a stallion. I will not repeat the story here but I would recommend it to anyone interested in the origins of the Standardbred as a story worth reading. Here, however, are a few highlights.

Hambletonian was born in 1849 on the farm of his owner Jonas Seeley. His sire was Abdallah, often

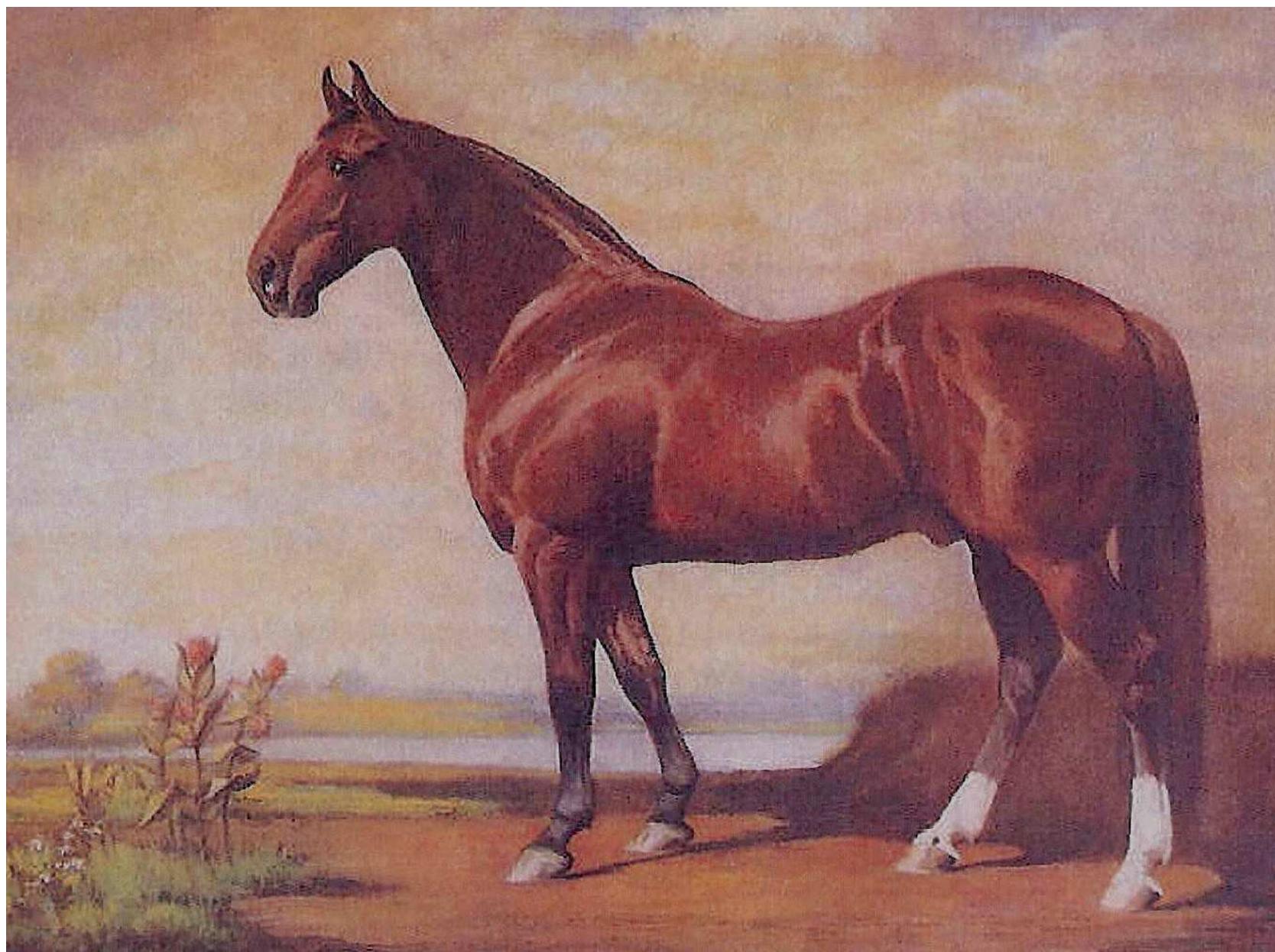
called Old Abdallah, a son of Messenger and his dam was The Charles Kent Mare by the Norfolk Trotter, Jary's Bellfounder whose maternal lines were essentially Thoroughbred. He never raced although his offspring certainly showed the "trotting instinct" that came from both sides of his pedigree. Over 24 seasons he had 1,331 foals before his death in 1876.

While it is generally acknowledged that Hambletonian was the most important sire line of his day and indeed the only sire line to survive through to the present in North America, there is little acknowledgement of the maternal side of the success of Hambletonian.

The mares to which Hambletonian and his sons were bred were a motley assortment indeed ranging from Thoroughbred to nondescript. The North American scene of the early 1800's was populated by many different breeds with names such as the Canadians, the Copperbottoms, the Blue Bulls, the Hiatogas, the Morgans, the Narragansetts and many more. One of the most important of these from a broodmare standpoint was the French Canadian horse known as "*Le petit cheval de fer*" or Little Horse of Iron. Before we trace the history of this breed we shall first look at the Morgan horse, a breed whose ancestry is clouded in controversy but whose presence in the early maternal identity of the Standardbred is indisputable.

Right : Hambletonian's stride was, as John Hervey called it, " a space-devouring Messenger sweep, grand and powerful." just like the horse himself as in this print by Helen Hayse.

Hambletonian





THE MORGAN HORSE

The Morgan Horse is the first documented American breed and owes its existence to one horse – the stallion Justin Morgan. As noted in the *Encyclopedia of The Horse*;

“He was as remarkable a horse as any in the recorded history of the equine species, but his origins are not totally clear and are a subject of conjecture among horse experts.”

The Cinderella story of the little dark bay horse, who weighed 800 lb and stood about 14 hands, begins in about 1795 when a two year old colt was given to Justin Morgan, in settlement of a debt. The Morgan Horse Club actually lists the date of birth as 1789 but several other sources say 1793. It is generally agreed that he was foaled in Massachusetts. Originally called Figure, he was only called Justin Morgan after his first owner's death.

Left: The trotting instinct is perfectly demonstrated in this picture of a modern day Morgan. They are now used in both ridden and harness classes and for western and pleasure riding. At one time the Morgan Horse was the chosen mount of the U.S. Army. Source: The Encyclopedia of The Horse

In addition to a heavy workload in the woods, Justin Morgan was used extensively as a racehorse under saddle and in harness, where his speed and determination proved unbeatable. He soon earned a reputation as a sire also since he had the ability to stamp his offspring with his special character and appearance. This much we know.

The question that cannot be answered with certainty concerns his breeding. His parents have been given as a combination of everything from English Thoroughbred to French Canadian to Dutch Friesian. Certainly in size and type, although not in color, he most closely resembles the last two.

The Thoroughbred pedigree that has been reconstructed involves two stallions owned by the same man. True Briton is claimed as his sire and Wildair as the sire of his dam and they were both owned by James De Lancey of New Jersey and both were imported English Thoroughbreds.

John Hervey gives a good accounting of this breeding that seems entirely plausible if it were not for the questions raised by Justin Morgan's size and the “trotting instinct” he so clearly instilled in his descendants. These questions gave rise to several other theories on the origins of the Morgan Horse.

The Canadian horse, as we shall see later, was a natural trotter, with a build that closely resembled that of Justin Morgan. The possibility of Justin Morgan's sire and/or dam being Canadian is very real since that area of New England was, at the time, being inundated with Canadian bloodlines from the area south of Montreal and Quebec City. John Hervey notes the following letter written in the Albany Cultivator in 1841.

"There appeared a letter written by one George Bernard of St Johnsbury, Vermont, in which he swore that the original Morgan horse was brought from Canada about the year 1804 by Justin Morgan of Randolph, Vermont, and soon after sold to his uncle, John Goss, and was a full blood French horse."

Although this attempted claim of origin was subsequently retracted and repudiated it still remains that such an origin is possible considering the importation of the French breed that was going on at that time into French Canada.

The Friesian theory stems from the fact that the Dutch settlers in the New York area had introduced the Friesian breed in the mid 1600's to that area and subsequent breeding to local stock, and the Friesians own trotting instinct, had produced a sturdy breed of coach horses that retained many of the Friesian characteristics that are notable in the Morgan. The

long, voluminous tail, sturdy build and strength were, and still are, present in the Morgan breed.

The Dutch horses were, however, notably lacking in speed and had essentially been absorbed into the fabric of horse development in North America by the time of Justin Morgan's birth. A son of Justin Morgan, the man, wrote a subsequent letter that indicated his father always spoke of Justin Morgan, the horse, as a Dutch horse. That was a term used rather loosely at the time to describe virtually any horse coming from the New York area and certainly does not correlate with another description his father used that Justin Morgan was of "*the best blood*", a term generally reserved to describe Thoroughbreds.

20th century authority Anthony Dent, who claims that Justin Morgan's sire was a Welsh Cob, has put yet another theory forward. This again would trace him back to the importation of the Friesian breed into England and the development of the Norfolk Trotter and several English pony breeds.

John Hervey has done what is likely the most exhaustive review of the pedigree of Justin Morgan and presents his findings in *The American Trotter* in a convincing manner, coming to the conclusion that the Thoroughbred theory is the most likely.

Right: The pedigree of Justin Morgan as given by John Hervey.
Source: *The American Trotter*

True Briton	<i>Crofts Partner</i>	<i>Jigg</i>	Byerly Turk
	<i>Mortons Traveller</i>	<i>Sister One To Mixbury</i>	Spanker Mare
	<i>Bay Bloody Buttocks</i>	<i>Bloody Buttocks</i>	Curwen Bay Barb
Lloyds Traveller		<i>Greyhound Mare</i>	Old Spot Mare
	<i>Cuddy</i>	<i>Fox</i>	Unknown
Jenny Cameron		<i>Bethells Castaway Mare</i>	Unknown
	<i>Sultan Mare</i>	<i>Sultan</i>	Greyhound
Justin Morgan	<i>Godolphin Arabian</i>	<i>Commoner Mare</i>	Brown Farewell
	<i>Babraham</i>	<i>Unknown</i>	Clumsey
	<i>Large Hartley Mare</i>	<i>Unknown</i>	Bay Peg
Betty Leeds	<i>Hartleys Blind Horse</i>	<i>Hartleys Blind Horse</i>	Bethells Castaway
	<i>Bolton Starling</i>	<i>Flying Whigg</i>	Brimmer Mare
Bolton Starling Mare	<i>Bay Bolton</i>	<i>Bay Bolton</i>	Lonsdale Bay Arabian
	<i>Godolphin Arabian Mare</i>	<i>Brownlow Turk Mare</i>	Sister To Bonny Lass
	<i>Wildair</i>	<i>Godolphin Arabian</i>	Whartons Commoner
Diamond	<i>Churchs Wildair</i>	<i>Bartlets Childers Mare</i>	Castaway Mare
	<i>Unknown</i>	<i>Cade</i>	The Holderness Turk
		<i>Steady Mare</i>	Makeless Mare
Diamond Mare	<i>Unknown</i>		William Arabian
	<i>Sportsman</i>	<i>Unknown</i>	Points
	<i>Lindseys Arabian</i>	<i>Unknown</i>	Grey Hautboy
Sportsman Mare	<i>Unknown</i>	<i>Unknown</i>	Makeless Mare
			Brownlow Turk
			Old Lady
			Unknown
			Unknown
			Bartlets Childers
			Young True Blue Mare
			Godolphin Arabian
			Roxana
			Steady
			Partner Mare

Whatever his ancestry, there is no doubt Justin Morgan, the horse, has played a major role in the development of the maternal identity of the Standardbred as well as establishing his own registered breed, the Morgan Horse of America.

He had three sons of particular note that spread their influence through New England, New York and south to Kentucky in short order. They were Sherman, Woodbury and Bulrush Morgan to whom all registered Morgans now trace their paternal lines. All were from mares of unknown breeding although a Canadian mare is often rumoured to be present in their pedigrees.

The most famous of the early Morgans was Ethan Allen, a great grandson of the founding father. He was the first trotter in North America to break the 2:30 barrier and this was done in 1853. The principal sire line developed through Sherman Morgan and especially his son Vermont Black Hawk foaled in 1833. He was the first stallion to be credited with three performers in the 2:30 list including Ethan Allen's 2:25 ½ record for his day.

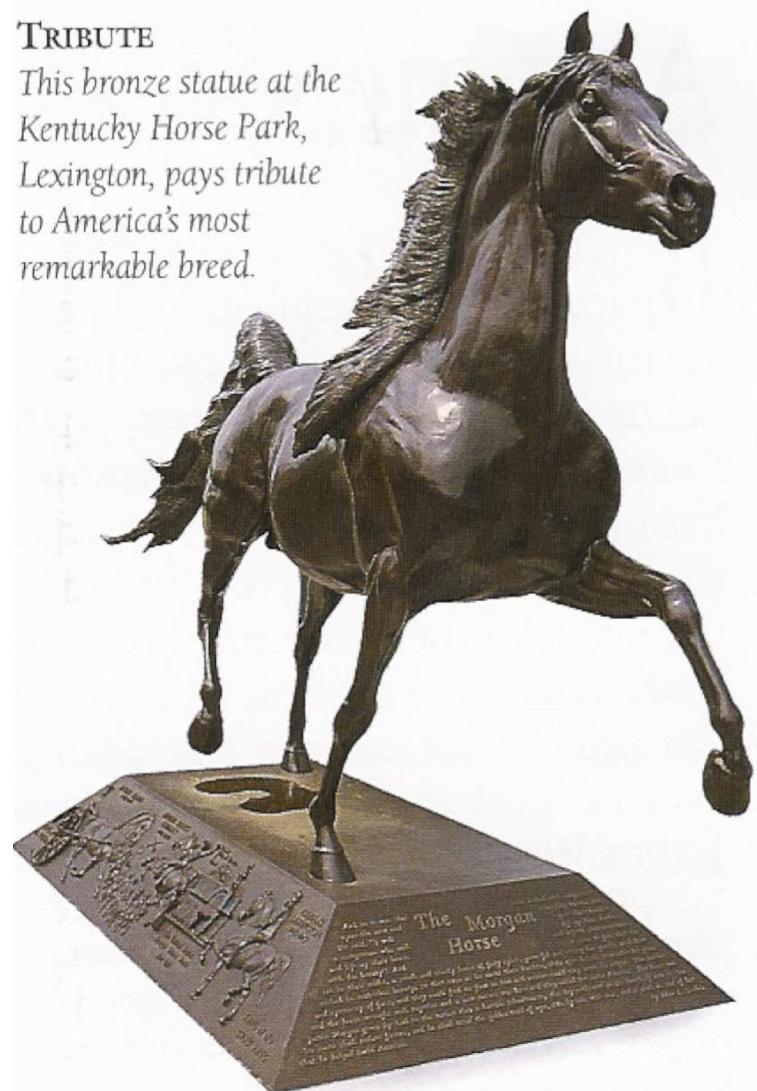
Opposite Page : Ethan Allen was inbred 3x3 to Justin Morgan and it was this type of inbreeding to the principal sire lines of the Morgan that ultimately proved the undoing of the Morgan as a racehorse in the competition with Hambletonian and his sons.

Right: The Morgan trotter. Source: The Encyclopedia of The Horse

The Morgan influence is also seen in the development of the American Saddlebred and of the Tennessee Walking Horse, both in themselves recognized breeds that also have Standardbred beginnings.

TRIBUTE

This bronze statue at the Kentucky Horse Park, Lexington, pays tribute to America's most remarkable breed.



	<i>True Briton</i>	<i>Lloyds Traveller</i>	Mortons Traveller
Justin Morgan	<i>Betty Leeds</i>	<i>Jenny Cameron</i>	Jenny Cameron
	<i>Diamond</i>	<i>Babraham</i>	Babraham
	<i>Sportsman Mare</i>	<i>Bolton Starling Mare</i>	Bolton Starling Mare
<i>Sherman Morgan</i>	<i>Unknown</i>	<i>Churchs Wildair</i>	Churchs Wildair
	<i>Unknown</i>	<i>Unknown</i>	Unknown
	<i>Narragansett Pacer</i>	<i>Sportsman</i>	Sportsman
<i>Narragansett Mare</i>	<i>Unknown</i>	<i>Unknown</i>	Unknown
	<i>Canadian</i>		
Vermont Black Hawk	<i>Unknown</i>		
	<i>Canadian</i>		
	<i>Unknown</i>		
<i>Canadian Mare</i>	<i>Unknown</i>		
	<i>Canadian</i>		
	<i>Unknown</i>		
Ethan Allen 2:25 1/2	<i>True Briton</i>	<i>Lloyds Traveller</i>	Mortons Traveller
	<i>Betty Leeds</i>	<i>Jenny Cameron</i>	Jenny Cameron
Justin Morgan	<i>Diamond</i>	<i>Babraham</i>	Babraham
	<i>Sportsman Mare</i>	<i>Bolton Starling Mare</i>	Bolton Starling Mare
<i>Red Robin</i>	<i>Canadian</i>	<i>Churchs Wildair</i>	Churchs Wildair
	<i>Unknown</i>	<i>Unknown</i>	Unknown
	<i>Bates Mare</i>	<i>Sportsman</i>	Sportsman
	<i>Canadian</i>	<i>Unknown</i>	Unknown
Poll	<i>Unknown</i>	<i>Unknown</i>	
	<i>Canadian</i>	<i>Unknown</i>	
	<i>Unknown</i>	<i>Unknown</i>	
<i>Vermont Horse</i>	<i>True Briton</i>	<i>Lloyds Traveller</i>	Mortons Traveller
	<i>Diamond</i>	<i>Betty Leeds</i>	Jenny Cameron
	<i>Sportsman Mare</i>	<i>Babraham</i>	Babraham
	<i>Canadian</i>	<i>Bolton Starling Mare</i>	Bolton Starling Mare
<i>Bemus Mare</i>	<i>Unknown</i>	<i>Churchs Wildair</i>	Churchs Wildair
	<i>True Briton</i>	<i>Unknown</i>	Unknown
<i>Chandler Mare</i>	<i>Diamond</i>	<i>Sportsman</i>	Sportsman
	<i>Canadian</i>	<i>Unknown</i>	Unknown
	<i>Dr Chandler Mare</i>	<i>Unknown</i>	

The influence of the **Canadian** horse is evident in the pedigree of Ethan Allen

THE CANADIAN HORSE

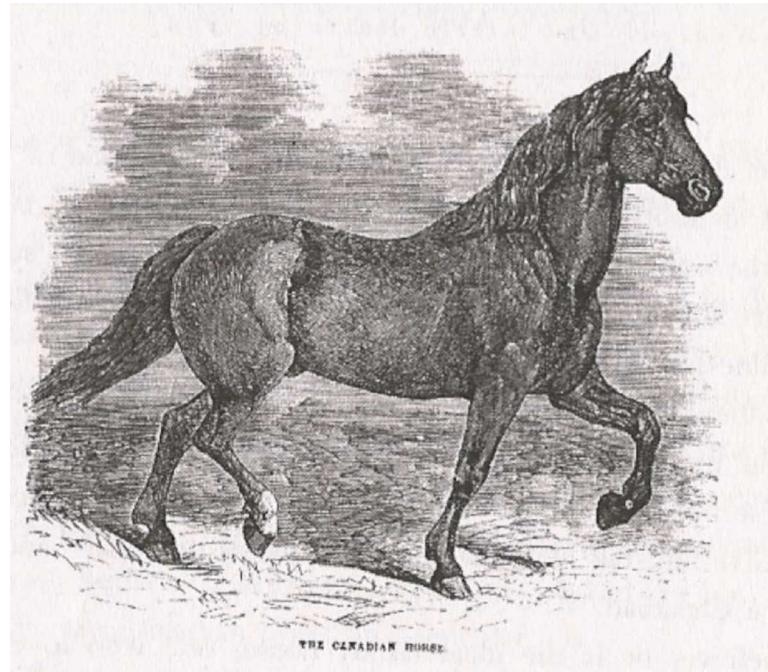
John Wallace, in his first two editions of the American Trotting Register published in 1871 and 1873, went to great lengths to research and explain the origins of each breed that contributed to the evolution of the Standardbred racehorse in North America. Of all the breeds he discussed there were two in particular for which he voiced little enthusiasm. One was the Thoroughbred and the other was the obscure breed of Canadians that in his words were “*mongrels*” among trotters.

Oh how wrong this dismissive statement has proven to be.

“Hardy, quick, and pound for pound perhaps the strongest horse on the planet, the Canadian has been called the little horse of iron yet few know about the breed, whose roots go back 350 years to the very early days of colonial Canada.”

That is how Lawrence Scanlan describes the breed in his book *Little Horse of Iron*; a recent publication subtitled *A Quest for The Canadian Horse*.

The history of this relatively obscure breed turns out to be a vital link between the trotting breeds of Europe and the American Standardbred.



Sketch of the Canadian Horse

Source: – *The Little Horse of Iron*.

Louis XIV reigned over France for 72 years and during that time he oversaw the development of the French colony of New France, as the early settlement of the French in Canada was known. In 1660 the colony's transplanted bluebloods began asking for horses and the King complied by sending two stallions and twenty mares from the Royal stables, of which eight mares perished on the voyage. The surviving horses arrived close to what is now the old city of Quebec where they had to swim ashore to the beach of Anse au Foulon.

They were warhorses, descendants of the Norman horses that took knights into battle. The famous 11th century Bayeux Tapestry depicts knights riding “*le cheval Canadien’s*” ancestor with its black wavy mane, long tail, feathered legs and sturdy build. Refined somewhat during Louis XIV’s time by the addition of Barb blood from Spain, they were nevertheless imposing and immensely strong.

Royal horses came from Normandy and Brittany, still the centers of breeding for the French trotter, and other French breeds such as the Selle Francais. The then small Breton horse reflected other important strains such as the Andalusian, an Arab breed from Spain introduced from North Africa by the invading Moors in the 8th Century. The influence of the Dutch Friesian horses, a trotting breed brought to France prior to the 16th Century, is also noticeable, since the characteristics of that breed are much the same as those depicted in the Bayeux tapestry.

Louis XIV sent another shipload in 1670 and then left the settlers to their own devices in breeding the horses they needed. The next generation of horses lost a little in size but gained in toughness; the strongest survived the rigors of the bone chilling winds of the harsh winters and the heavy farm work to which they were exposed. By 1700 the colony had over 700 horses and many were used to pull speedy caleches on the trot with this inevitably resulting in sporting contests on

the main roads in summer and on the frozen rivers in winter.



Portrait of Louis XIV riding one of his Royal horses. Source: - The Little Horse of Iron.

New France grew in isolation for almost 100 years, which meant that no other breeds intermingled with these horses and they developed unique and distinctive characteristics. The evolving Canadian horse was typically small, with powerful legs and shoulders, round frame, a voluminous and crimped mane and tail, and broad hooves that were noted to be as hard as iron – hence the name “*little horse of iron*”

The isolation of Quebec ended with the arrival of the English army under General Wolfe in 1759. Launching an attack from the beach at Anse au Foulon, the very spot where the horses came ashore in 1665, Wolfe laid siege to the city and eventually drove many of the French settlers and their horses to flee, spreading out to other areas of Canada and America. The defeat of the French by the English army on the Plains of Abraham opened the floodgates for other breeds more familiar to the English, notably the Thoroughbred and mixed breeds such as the Norfolk Trotter. In the early 1800's there was also a renewal of the export of horses from France to their former colony only this time the French horses were much more refined with the addition of the same Thoroughbred and Norfolk Trotter bloodlines.

When the Americans south of the border discovered the Canadian horse at this time they saw their value and took them south in great numbers. Canadians became celebrated as trotters and pacers, as roadsters

and as breeding stock. The Canadian horse was already known for his uncommon strength and endurance. He lacked the pure speed of the evolving American trotter but it became clear that crossbreeding the two types created a superior horse.

The National Live Stock Journal of 1881 contains the following comment

“The American trotting horse is an American creation. The material has been taken from various sources, but more largely from the short, quick stepping French Canadians than from any other source. We run against Canuck blood almost everywhere in our trotting pedigrees ... the Kentucky pedigrees are full of it ... New York pedigrees are full of it ... New England pedigrees are full of it ... and in Mr Thompson's excellent work on Maine bred horses you encounter the Canuck blood on almost every page.”

Names like St Lawrence, Royal George, Copperbottom, Daniel Boone, and Smuggler were all part of the maternal identity of the American trotter in the early 1800's and they all were of Canadian heritage. The famous Hal line of pacers also had its roots in Canada and produced Star Pointer, a son of Brown Hal. Star Pointer was the first sub 2.00 performer of either gait in North America, taking his record at Boston in 1897.

PILOT, who crossed the border tied to a peddlers cart and was himself a fast pacer for his day, was perhaps the most famous of the early Canadian horses. The story of Pilot's adventures takes him to New Orleans and along the way he was match raced against all comers. Undefeated he was sold in New Orleans to a sugar trader and eventually ended up at stud on the farm of Robert Bell, near Henderson in Kentucky. One historian, Charles Plumb, says Pilot was foaled in 1828 in Quebec.



This picture of Star Pointer, the first 2:00 pacer shows his typical Canadian features of a short, strong build with a heavy mane and tail. His physical features sound very much like those of Old Pilot.

Source: The Standardbreds by Barbara J Berry

"He bred both pacers and trotters and rendered valuable service to the American racing horse interests."

Pilot, or Old Pilot, was a black horse, 14 hands high, with a heavy mane and tail and a somewhat nasty disposition. What set Pilot apart, in a state renowned for its wealth in stud farms, was his prepotency. Mares of all breeds were brought to him and he passed on to his sons and daughters his own great stamina and vigor. His offspring were popular not so much as racing stock but as all purpose saddle horses and tireless harness and wagon horses, many of which went "west" with the settlers.

Hervey writes of the origins of Pilot:

"Bred by Louis Dansereau in the province of Quebec and foaled 1823. Sire unknown; dam Jeanne d'Arc by Voyageur. The dam of Voyageur was a mare got from Yankees."

The origin of Old Pilot's sire is likely Canadian, given his physical appearance, and that of his dam and her sire likely to be French or French Canadian given the names. In the early 1800's there was an influx of breeding stock brought from France at a time when French breeding was being revolutionized by a similar influx of Norfolk Trotters and Thoroughbreds from England. Indeed the first French studbook contains a

reference to a sire name Le Pilot born in 1803 from a Norfolk Trotter mare. One of his offspring could well have been sent to Canada to be part of the creation of Old Pilot in 1823 perhaps as the dam of Jeanne d`Arc or as the sire of Voyageur. It is also possible that Pilot's pacing ability was in part due to the Yankee mare referred to by Hervey and that this could have been what Scanlan refers to when he notes

"The Canadian pacer, a blend of the Narragansett pacer from Rhode Island and the old strains of the French Canadian horse, contributed mightily to that doyen of the racetrack, the famous American Standardbred."

Another French import to Quebec in that period was a horse called simply European in the early studbooks. Again Hervey writes:

"European was a horse of elegance and beauty, grey in color, bought in Montreal in 1829. He was not a native Canadian horse but had been imported from France"

European is the grandsire of Alexanders Norman, sire of the dams of Norval and Advertiser as well as of the dam of May King, the sire of Bingen, The juxtaposition of European in Quebec at the same time as the breeding of Pilot occurred is interesting to note for two reasons. The first being, of course, the

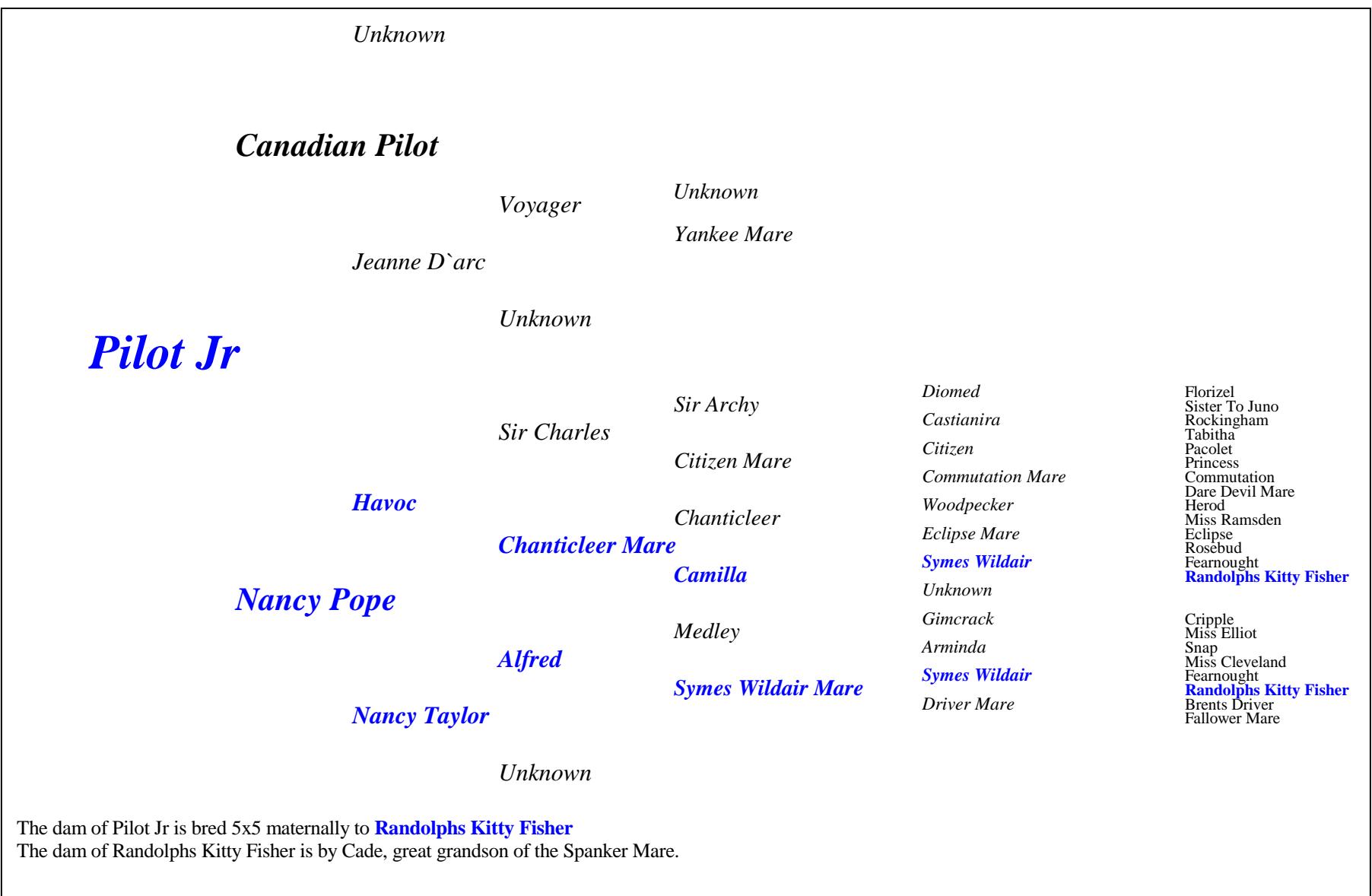
verification of the timing, type and style of horse then being introduced from France, while the second is the possibility that European or one of his shipmates from France may have been part of the breeding that produced Pilot in some way. Pilot was a black horse known more for producing pacers than trotters. European was a grey trotter whose son The Morse Horse in turn produced several grey trotters amongst them General Taylor, holder of the world record to this day for trotting 30 miles in one hour, 47 minutes and 59 seconds according to Hervey.

The Canadian legacy is nowhere more evident than in the exploits of one of Pilot's sons aptly named Pilot Jr, and he too, like European, was a grey trotter born of Thoroughbred maternal bloodlines.



Pilot Jr, was the son of a Canadian pacer. Source: Hoofbeats

Below: Pilot Jr, by the Canadian bred horse known as Pilot or Old Pilot, stood in Kentucky prior to the Civil War and while little known or recognized today, his influence in modern day pedigrees is remarkable.



PILOT JR was the king of all trotting stallions in the Bluegrass in the years prior to the Civil War. He was the patriarch at the leading Kentucky farm of the era and one of his daughters produced Pilot Medium, sire of Peter The Great.

Pilot Jr was a pure gaited grey trotter who became the first Kentucky bred trotting sire to gain a national reputation with eight in the sub 2.30 list all bred in or before 1860. He was, however, most highly regarded as a broodmare sire. As Hervey notes regarding his daughters:

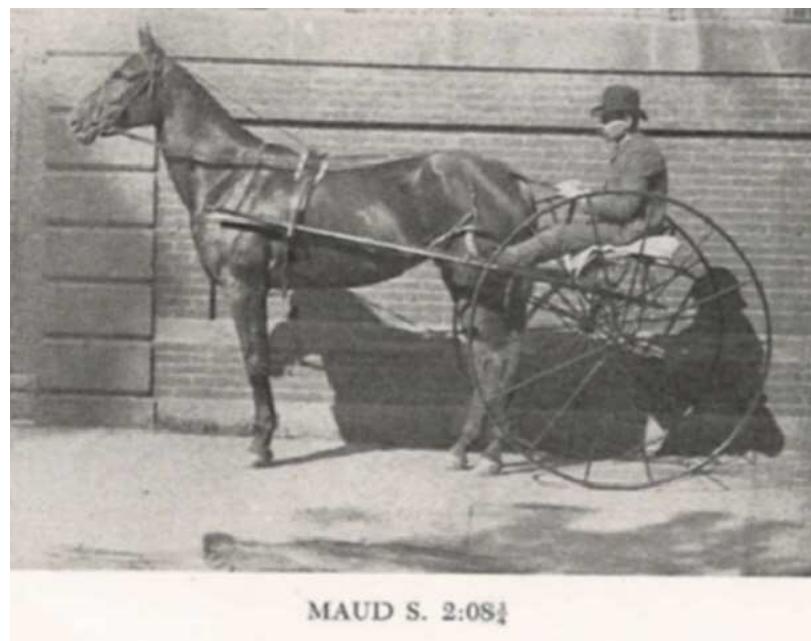
“They are among the glories of the Trotting Register”

One of his daughters, Midnight, produced Jay-Eye-See, the first trotter to break 2.10. This mark was short lived, however, since the next day it was broken by Maud S, who just happened to be out of a Pilot Jr mare called Miss Russell. But then again perhaps it was more than just a coincidence.

Pilot Jr was purchased by Robert Alexander in 1858 and stood at Woodburn Farm in Kentucky, aptly named “*the Mother Farm of the Standardbred*. Alexander was reputed to have the first establishment devoted to systematic, thoroughly planned and carefully conducted racehorse production of both types.

Alexander was an innovator who experimented to develop and improve various breeds of horses and cattle. It is now a matter of history that the breeding of several Thoroughbred mares to Pilot Jr was an experiment for the purpose of producing broodmares.

These Pilot Jr mares, when bred to trotting stallions such as Harold, a son of Hambletonian, produced the likes of world champions Maud S and Jay Eye Cee among others that made Pilot Jr mares famous.



MAUD S. 2:08½

*World Champion Maude S, the first mare to trot under 2:10 in the world. She took her record in 1879 and was driven by Wm. W Blair
Source: The American Trotter*

Pilot Jr. mares are the maternal source of over 340 Standardbred sires of note including such luminaries as Pine Chip, Big Towner, Spencer, Ayres and the great French sire Coktail Jet. The vast majority traces to either Midnight (130) or Kathleen (123).

Pilot Jr. Mares

Midnight (130)
Kathleen (123)
Lady Hurd (26)
Miss Russell (11)
Molly Trussell (9)
Waterwitch (9)
Dahlia (6)
Juliet (6)
Kate (3)
Croquette (2)
Flora (2)
Lady Curry (2)
Minerva (2)
Pilot Jr. Mare (2)
Crop (1)
Kate Anderson (1)
Lady Pilot (1)
Pilot Anna (1)
Santa Maria (1)
Tackey (1)

The influence of Pilot Jr mares has spread far and wide. Tackey is the dam of Pilot Medium, sire of

Peter The Great; Lady Hurd has a number of credits in Sweden and Norway such as Craftsman and Saint Protector; Juliet is the family of German sires Lessing and Zorrino; Kathleen has Big Towner, Spencer and Good Time while Flora is the maternal line of Diamond Way, the top sire in Germany. Midnight has the French sire Coktail Jet, Ayres, Noble Victory and Florida Pro as well as European sire General November and the great Pine Chip.

In his pursuit of improving the trotter by cross breeding to Thoroughbreds, Alexander raised the ire of James Wallace, founder of the American Trotting Register and guardian of the “*Standard*” for trotting and pacing in harness. Many theories on how to breed the trotting horse centred on the perceived need to “*breed up*” horses with a disposition to trot to Thoroughbred sires in order to improve speed and stamina. Wallace, however, was of the opinion that “*like begets like*” and that breeders would be wise to seek “*to unite again two streams that originate in the same fountain, but that had been separated for a few generations.*”

Little did he realize how separated the two streams indeed were that Alexander was working to reunite. Little did he realize also that the future of the breed would be molded by the maternal contributions of the two bloodlines he despised the most – the Canadian and the Thoroughbred

THE TWO STREAMS UNITE

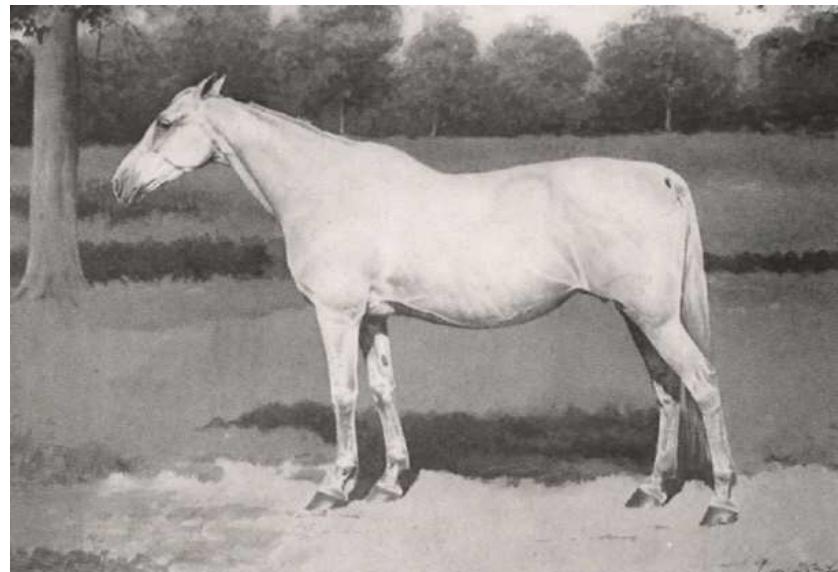
MISS RUSSELL – QUEEN AMONG QUEENS

What is it that makes the daughters of Pilot Jr, and in particular Miss Russell, such a pervasive influence in the maternal identity of so many top Standardbreds today? How can this genetic legacy of a single individual like Miss Russell be of any importance over 100 years after her own passing? What genetic process is at play that can nurture the legacy of particular horses through many generations in an apparently undiminished form, only to rear its head in such spectacular fashion when the right circumstances prevail? What, indeed, are the right circumstances? In the course of the next chapters I shall try to provide the basis for answers to these questions.

The story of Miss Russell really begins in 1799 the year a Thoroughbred stallion named Diomed landed in America. This former champion of the Turf in England was banished to the colonies after a disappointing start to his stallion career. It turns out that the words of the old English saying “one man’s muck is another man’s money” ring very true regarding this event. Diomed became a great sire whose daughters were prized as broodmares.

At the same time as Diomed arrived on the scene so too did the migration of the Canadian horse begin and

it was R A Alexander, master of Woodburn Farm who, in reuniting these long separated bloodlines, paved the way for the development of the Standardbred and in particular its maternal identity.



Miss Russell – Queen Among Queens. Source : The American trotter

“ Miss Russell was more strongly inbred to the Diomed strain than any trotting mare of her day. She inherited one strain through the dam of her sire Pilot Jr and her dam, Sally Russell, was more intensely inbred to imported Diomed than any other animal whose name appears in the American Stud Book. ” In another reference Mangum writes “ The noted trotters that have been most strongly impregnated with the Diomed strain have been the descendants of Miss

Russell, Midnight, Mambrino Patchen and American Star. The finest in quality of the sons of Hambletonian were those out of American Star mares.”

William Preston Mangum in his book on Woodburn Farm entitled *Kingdom For The Horse* continues: “*The Messenger influence through Hambletonian gave the trotting conformation and the inclination to adopt and stick to that gait, while the inheritance from Diomed gave great speed ability and other racing qualities. There are a few Thoroughbred strains that seem to blend harmoniously with the trotting strains. The Diomed strain has proved to be the best of these.*”

The American Horse Breeder was a popular newspaper at the turn of the 20th century and on September 28th, 1898 there appeared a feature editorial and a front-page illustration of Miss Russell. It is important to understand fully the context of this great trotting broodmare and therefore I repeat the introductory part of the article in full along with a follow up in the same journal on July 27, 1910 titled

“The Famous Brood Mare Miss Russell”

“A letter received after going to press last week from Lucas Brodhead, manager of Woodburn Farm, Spring Station, Kentucky, announced that Miss Russell died Sept 19, of old age. Miss Russell at the time of her death was the oldest and one of the best known to

horsemen of all the great trotting mares. She was a Queen among Queens, not only in breeding, but also in her conformation and speed perpetuation ability. She was gray in color, stood 16 hands high and was remarkably well proportioned. She was by Pilot Jr, one of the fastest trotting stallions in Kentucky in his day. The pedigree of her dam surpassed in excellence of racing blood lines that of any other animal of her generation whose name can be found in any of the various stud books.”

“Miss Russell was bred by R A Alexander, at his world renowned Woodburn Farm establishment, Spring Station, Kentucky and was foaled in 1865. Her sire was Pilot Jr, the most noted son of the fast Canadian pacer, Old Pilot. Pilot was a stout, low set and very speedy pacer, black in color. His son Pilot Jr was a square gaited trotter, and his color was gray, a quality which he transmitted to his renowned daughter, Miss Russell”

“The breeding of the ancestors of Old Pilot has never been made public. It is a well established fact, however, that he was taken from Canada to the United States, and was in his day one of the fastest pacers that had ever been brought across the line.”

The subsequent article in 1910, recounting the best broodmares to that date, elaborated on the pedigrees of Pilot Jr and of Miss Russell’s dam as follows:

“Another great broodmare whose name has appeared more frequently than any of the others during the past few seasons in the new additions to the 2:10 trotting list, is Miss Russell, a 16 hand, well proportioned gray mare bred by R A Alexander, proprietor of Woodburn Farm and foaled in 1865. Her sire was Pilot Jr, a son of the pacer Pilot that originated in Canada. The dam of Pilot Jr was Nancy Pope, by Funk’s Havoc, a son of the Thoroughbred Sir Charles by Sir Archy (son of Diomed); second dam Nancy Taylor by Craig’s Alfred, a son of the imported Thoroughbred Medley.

The dam of Miss Russell was Sally Russell, a Thoroughbred daughter of the famous long distance race horse Boston, the most successful race winner at three and four mile heats that lived in his day. Boston was by Timoleon, himself a successful racehorse and a son of Sir Archy, the best son of imported Diomed. The dam of Boston was by Balls Florizel, a horse that was raced and never lost a heat and was never touched by whip or spur. His dam was by imported Shark, a son of Marske, the sire of English Eclipse. The second dam of Miss Russell was Maria Russell, by Thorntons Rattler, a son of Sir Archy; third dam, Miss Shepherd by Stockholder, a son of Sir Archy; fourth dam, Miranda, by Topgallant, a son of imported Diomed, fifth dam by imported Diomed; sixth dam by imported Medley; and seventh dam by imported Juniper.”

“It is doubtful if another animal can be found in the Stud Book that is more closely inbred to imported Diomed than was Miss Russell, and she was also closely inbred to Sir Archy, the best son of Diomed. It is generally acknowledged by all unprejudiced horsemen who are familiar with the equine history of this country, that no other horse of his day had so great an influence in improving the most valuable qualities of the horse stock of America as did Sir Archy.”

The only problem I have with this final statement is that it clearly is misplaced. What started out as a revue of the pedigree and accomplishments of “*the Queen among Queens*” turned in to a typical sire boosting exercise at the expense of the legacy created by Miss Russell. Once again we see the maternal influence pushed into the background and the accolades awarded to the sire line. An examination of the impact of Miss Russell on the Standardbred of today could well justify rewording that glowing appraisal of Sir Archy by replacing his name with that of Miss Russell.

I would hope that after reading the rest of this story that such a statement will ring true. In her day, Miss Russell had more maternal traces to The Spanker Mare than any other to be found, in addition to her six lines through Diomed and his sons. This is the legacy of the Queen among Queens.

		<i>Diomed</i>	Florizel Sister To Juno Rockingham Tabitha Eclipse Virago Symes Wildair	Herod Cygnet Mare Spectator Horatia Highflyer Purity Trentham Bosphorus Mare Marske Spilletta Snap Regulus Mare Fearnought Randolphs Kitty Fisher Brents Driver Follower Mare Herod Cygnet Mare Spectator Horatia Marske Snap Mare Eclipse Fearnought Mare Eclipse Sportsmistress Pantaloons Cades Bay Richmond Swinburne Arabian Mare Symes Wildair Young Kitty Fisher Herod Cygnet Mare Spectator Horatia Highflyer Purity Trentham Bosphorus Mare Highflyer Papillon Woodpecker Papillon Eclipse Sister To Croney Wildair Cub Mare Florizel Sister To Juno Rockingham Tabitha Pacolet Princess Stirling Mousetrap Mare Florizel Sister To Juno Symes Wildair Black And All Black Mare Florizel Sister To Juno Medley Shark Mare
	<i>Sir Archy</i>		<i>Castianira</i>	
	<i>Timoleon</i>		<i>Saltram</i>	
			<i>Symes Wildair Mare</i>	
Boston		<i>Diomed</i>		
		<i>Atkinsons Shark Mare</i>		
	<i>Balls Florizel</i>		<i>Alderman</i>	
	<i>Sister To Tuckahoe</i>		<i>Clockfast Mare</i>	
			<i>Diomed</i>	
	<i>Alderman Mare</i>		<i>Castianira</i>	
Sally Russell			<i>Robin Redbreast</i>	
			<i>Obscurity Mare</i>	
	<i>Sir Archy</i>		<i>Sir Archy</i>	
	<i>Thorntons Rattler</i>		<i>Citizen Mare</i>	
			<i>Topgallant</i>	
Maria Russell	<i>Stockholder</i>		<i>Diomed Mare</i>	
	<i>Miss Shepherd</i>			
	<i>Miranda</i>			

Sally Russell has 6 separate sire lines through **Diomed** and 14 maternal traces to the **Spanker Mare**.
 Her sire Boston, the famous long distance champion has a fourth dam inbred 2x3 to **Randolphs Kitty Fisher** and the **Spanker Mare**

THE MATERNAL LEGACY

In her long and illustrious career as a broodmare at Woodburn Farms, Miss Russell produced seventeen foals that have extended her influence worldwide. From North America to the Antipodes and throughout Europe the sons and daughters of Miss Russell have left their mark on the maternal side of the breeding equation.

She had eight foals in the 2:30 list including two better than 2:10. This was in a time when a broodmare was considered special if she had more than one standard performer.

Genetic variation being what it is, the foals of Miss Russell were by no means all successful in their breeding careers. Her sons at stud included Nutwood, Pistachio, Mambrino Russell and Lord Russell but the most important was Nutwood, her firstborn son foaled in 1870.

The daughters of Miss Russell have spread their legacy throughout the world as Rusina is responsible for the maternal line of German foundation sire Assur, Russella has Lyon in Sweden, and Justitsraaden in Germany as well as Syndicator and Lee Worthy in North America while Russia is the dam of Abbey Bells exported to Australia.

Miss Russell

Pistachio h p.2:21 3/4 by Belmont
CPR h. by Belmont
Lord Russell h. Harold
Mambrino Russell h. by Woodford Mambrino
Nutwood h. 2:18 3/4 by Belmont
Rustique h. 2:18 3/4
Sclavonic h. 2:09 3/4 by King Wilkes
Cora Belmont m. 2:24 3/4 by Belmont
Lady Norwood m. by Belmont
Lady Russell m. by Harold
Expedition h. by Electioneer
Maude S m. 2:08 3/4 by Harold
Nutbourne m. 2:26 3/4 by Belmont
Nutula m. 2:30 by Belmont
Velocidad h. by Electioneer
Rusina m. by Belmont
Russula m. by Kremlin
Birri m. by Bingara
Kalavia m. by Kavalli
Tuler m. by San Francisco
Ode m. by In Tune
Assur h. by The Great Midwest
Russella m. by Harold
Russell McCreary m. by Clay King
Katherine Harris m. by Border Knight
Prevoyante m. by Farceur X
Jasante m. by St Estephe
Lyon h. by Go
Mary Tudor m. by Worthier
Emma Smith m. by Morgan Axworthy
Phellis Arion m. by Arion Guy
May Castle m. by Guy Castleton
Justitsraaden h. by Sir Peter Britton
Belle Smith m. by Bunter
Syndicator h. by Spencer Scott
Lee Worthy h. by Lee Axworthy
Russia m. by Harold
Abbey Bells h. by Bow Bells
Suffrage m. by Electioneer

It is, however, through Nutwood's daughters that the legacy of Miss Russell has primarily been passed on.

Mamie Comet is the granddam of Bonilene, founder of one of the top maternal families in New Zealand.

Lida W is the dam of Nutwood Wilkes, the sire of Oniska, and of Direct Line, sire of the dam of Oniska so the dam of San Francisco is inbred 2x3 to Lida W thus doubling up the legacy of Miss Russell and passing it via San Francisco through Cita Frisco to Volomite, sire of the dams of such broodmare sires as Tar Heel and Good Time. Another daughter of San Francisco is Dillcisco, dam of Stars Pride.

By By is the dam of Adioo and granddam of Adioo Guy, sire of the dam of Adios. She is also the great granddam of Dillon Axworthy through Adioo. Helen Hanover, a major influence in modern pacing pedigrees is inbred 3x2 to Dillon Axworthy. Other Adioo sires include Wilmington who combines with Dillon Axworthy in the maternal lines of Abercrombie.

Stray Moments is the maternal source of over sixty sires including Cam Fella, Northern Luck, and Goliath Bayama,

Manette is the dam of World Champion Arion and Margaret Parrish, whose presence in top trotters today is overwhelming, is inbred 3x2 to Arion maternally.

Nemea is the maternal line of Swedish sires Peter Rutherford, Bulford and Chilton.

Galena is the granddam of Electioneer, the founder of the Abbe line of pacing sires.

Lady Marjoe is the great granddam of Jack Potts, one of the premier broodmare sires in the evolution of both trotting and pacing in Australia and New Zealand.

Hazel Nutwood is the maternal line of such sires as Dexter Nukes, Sportsmaster, Adios Butler and Governor Skipper.

Miss Nutonia is responsible for Martinos, sire of the dam of Gene Abbe.

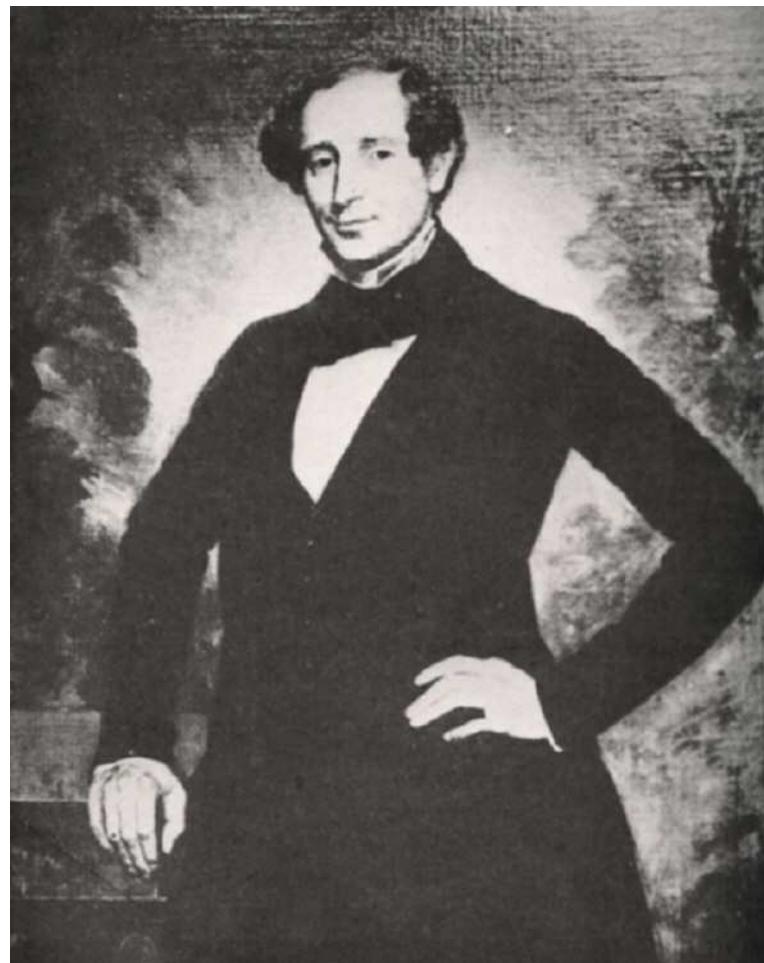
There are many other traces to Miss Russell through other offspring of Nutwood and through her other sons and daughters that show up in modern pedigrees but appear only as minor players in the overall scheme of things. The key players are those that show close inbreeding maternally and they are the ones that bear watching.

Concentrations of the maternal influence of Miss Russell show up in today's top pedigrees through superior females far too often to be ignored. In addition to her sons and daughters, there are several descendants that through inbreeding have fortified the legacy of Miss Russell to provide themselves not only with outstanding racing careers but also to establish them as turning points in the evolution of the top performers of today.

I have noted above that there are three inbred females that inherit the legacy of Miss Russell through Nutwood, they being Helen Hanover, Margaret Parrish and Oniska. These three mares between them, along with their respective maternal links through By By, Manette and Lida W, all daughters of Nutwood, are present in some combination in the maternal lines of virtually every top performer of today in North America.

Miss Russell is not alone in her influence on modern day pedigrees. There are other mares of Thoroughbred ancestry that are noteworthy including Kathleen and Midnight, both daughters of Pilot Jr, and Hatteras whose inbreeding 2x3 to the mare Betty Brown brings the legacy of Diomed forward through another channel. Kathleen is noteworthy as the maternal line of Spencer. Hatteras is the third dam of World Champion Dean Hanover, whose daughters produced Speedster, Hickory Pride and Hickory Smoke. If there

is one thing that all of these important American matrons share in common it is a maternal presence of Diomed, the standard bearer of the maternal influence of the Brothers Childers in North America.



R.A. Alexander, master of Woodburn Farm and the breeder of Miss Russell and many other foundation mares of the American Standardbred
Source: A Kingdom For The Horse – W Preston Mangum

MAMBRINO PATCHEN AND AMERICAN STAR

William Preston Mangum noted the affinity of mares by these two sires with Hambletonian and also the fact that they too carried Diomed maternally. John Hervey concurs that these two were noted for their daughters as broodmares and gives a short history of their pedigrees with these highlights.

Mambrino Patchen . Source: The American Trotter



Mambrino Patchen was born in Kentucky in 1862, a son of Mambrino Chief from a dam entirely Thoroughbred in nature. His breeder was Dr Levi

Herr who also had a hand in training Pilot Jr as well as several others by Old Pilot.

Dr Herr was a very single minded and opinionated individual who is credited with being among the first to race trotters at the age of two using a system of training that was revolutionary for its day and subject to a barrage of criticism and condemnation. He also had his own ideas about breeding which ran him afoul of John Wallace since he, like R A Alexander, was a proponent of breeding thoroughbred mares to trotting stallions to improve the breed.

Mambrino Patchen, therefore, had more than his share of such mares and combined with his own maternal heritage to the Brothers Childers, these mares became important producers.

His own dam was called the Rodes Mare, or sometimes The Gano Mare, since she was by Gano, a pure bred son of American Eclipse. Gano's dam is by Sir Archy, a son of Diomed. Mambrino Patchen's second dam is by a son of Sir William, he a son of Sir Archy. There are three separate traces to the Brothers Childers in the dam of Sir Archy and that is the connection he has to the Ancestral Mom and perhaps the reason for his maternal strength.

"The glory of Mambrino Patchen accrued through his daughters, which as a band were not only the premier

producers of their generation, but unsurpassed by any other, before or since, most particularly in the carrying power of their blood and its prolonged influence.”

This glowing statement is by Hervey but the part that interests me is the comment on the lasting influence of Mambrino Patchen. Is this related to the manner in which the legacy of the Ancestral Mom is carried? If so, how do we reconcile this with what we know of genetics and gene inheritance relative to the passage of time?

There is one very significant strain of Mambrino Patchen that is still a factor in modern pedigrees and that is through Dean Hanover whose maternal line goes to Hatteras, a mare that is extensively inbred to this source.

American Star was foaled in 1837 in New Jersey. There was some controversy over his breeding but Hervey has cleared up much of what was debatable, and it is generally agreed now that he was by Stockholms American Star, a grandson of Diomed, and that his dam, Sally Slouch, was by Sir Henry whose dam was by Diomed. The second dam is said to be of Messenger descent or by Messenger himself.

Hervey comments : “*He got four 2:30 trotters and eight of his sons became standard sires; but the glory of his daughters will always keep his memory green.*”

Like Mambrino Patchen, his daughters created a legend as broodmares although American Star did not live to see this legend come to pass. The honor role was remarkable though particularly when his daughters were bred to Hambletonian, and included the dams of world champion Dexter, Dictator, Aberdeen, Artillery, Robert McGregor and Lady Dunn the dam of Guy Wilkes. This last individual had a dam by Mambrino Patchen as well as his second dam by American Star, and third dam by the Thoroughbred sire Tiger, son of Jane Hunt and this will turn Guy Wilkes into an important part of the maternal identity of the Standardbred of the late 1800’s.

Guy Wilkes is noteworthy as the sire of the dam of Guy Axworthy whose daughters also made an important contribution to the maternal identity and in particular with Margaret Arion, dam of Protector and His Excellency. Guy Axworthy daughters had their greatest success when bred to Volomite who was responsible for over 25% of the foals that raced and many of the daughters that bred on.

Guy Wilkes

t,2:15 1/4

Lady Bunker

Lady Dunn

Mambrino Patchen

Gano Mare

American Star

George Wilkes

Dolly Spanker

Telegraph

Mambrino Chief

Roberts Mare

Abdallah

Hambletonian

Charles Kent Mare

Henry Clay

Cassius M Clay

Abdallah Mare

Mambrino Paymaster

Eldridge Mare

Gano

Son Of Sir William Mare

Stockholms American Star

Sally Slouch

Tiger

Unknown

Mambrino

Amazonia

Imp Bellfounder

One Eye

Andrew Jackson

Lady Surrey

Cassius M Clay

Abdallah Mare

Mambrino Paymaster

Eldridge Mare

American Eclipse

Betsey Richards

Son Of Sir William Mare

Unknown

Duroc

Unknown

Henry

By Messenger

Whip

Jane Hunt

Messenger

By Sour Crout

By Messenger

Unknown

Stevens Belfounder

Velocity

Bishops Hambletonian

Silvertail

Young Bashaw

Unknown

Canadian

Unknown

Henry Clay

Jersey Kate

Abdallah

Lawrences Eclipse Mare

Mambrino

Paymaster Mare

Messenger Duroc

Unknown

American Eclipse

Betsey Richards

Son Of Sir William Mare

Unknown

Duroc

Unknown

Henry

By Messenger

Whip

Jane Hunt

Mambrino

Turf Mare

Sour Crout

Whirligig Mare

Messenger

Driver
Wroofs Pretender

Mare By Smuggler
Haphazard

Miss Hervey

Messenger

Pheasant

Messenger

Black Jin

Grand Bashaw

Pearl 0

Andrew Jackson
Lady Surrey

Unknown

Unknown

Mambrino

Amazonia

Lawrences Eclipse
Charles Hadley Mare

Messenger

By Sour Crout

Paymaster

Feather Mare

Hambletonian

Satine

Duroc
Millers Damsel

Sir Archy

Rattle Mare

Sir William

Unknown

Diomed

Amanda

Sir Archy

Diomed Mare

Messenger

Unknown

Saltram

Herod Mare

Hamptons Paragon

Hunts Moll

Traces to **The Spanker Mare** in the dam of Guy Wilkes

MIDNIGHT

The fourth, but by no means the least, of the horses noted by Mangum as carrying a strong influence of Diomed, and thus the Spanker Mare, is Midnight. Like so many of the foundation lines this one also started at Woodburn Farm in Kentucky where she was born, like Miss Russell, as part of R A Alexander's experiment in crossing Pilot Jr to mares with Thoroughbred foundations.

The extended family of Midnight is the subject of a later chapter but for now we are interested in her own version of "*uniting the two streams*".

Her maternal pedigree is entirely Thoroughbred. She was born in 1865 at a time when the male descendants of Diomed were dominating Thoroughbred pedigrees in Kentucky as her own pedigree attests. Her dam was by Lexington, a Woodburn Farm stallion and a fourth generation descendant of Diomed. Lexington's second dam was by Sumpter, a grandson of Diomed, and he himself was by Boston, sire of the dam of Miss Russell.

Midnight's second dam was by the imported English Thoroughbred Glencoe whose maternal lines boast no fewer than seven traces to the Spanker Mare. Her third dam is by Wagner, another grandson of Diomed, and he has two traces to Randolphs Kitty Fisher, the

same source of the Spanker Mare that is doubled up in the maternal pedigree of Pilot Jr.

The fifth dam is by yet another grandson of Diomed in Tennessee Oscar and her sixth dam is by Diomed himself.

Her foals included the first trotter to win in 2:10 by the name of Jay-Eye-See who was by Harold, a son of Hambletonian. She is the only foundation mare to produce a Champion trotter and her extensive legacy of the Thoroughbred Diomed had much to do with it as did her sire, Pilot Jr, the son of a Canadian.



*Jay-Eye-See was the first trotter to win in 2:10
Source: The American Trotter*

Jay Eye See

2:10

		<i>Mambrino</i>	<i>Messenger</i>	<i>Mambrino</i>
	<i>Abdalla</i>	<i>By Sour Crout</i>	<i>Turf Mare</i>	<i>Turf Mare</i>
		<i>By Messenger</i>	<i>Sour Crout</i>	<i>Sour Crout</i>
		<i>Unknown</i>	<i>Whirligig Mare</i>	<i>Whirligig Mare</i>
	<i>Hambletonian</i>	<i>Stevens Belfounder</i>	<i>Messenger</i>	<i>Messenger</i>
		<i>Velocity</i>	<i>Unknown</i>	<i>Unknown</i>
		<i>Bishops Hambletonian</i>	<i>Unknown</i>	<i>Unknown</i>
	<i>Charles Kent Mare</i>	<i>Silvertail</i>	<i>Wroofs Pretender</i>	<i>Wroofs Pretender</i>
		<i>Messenger</i>	<i>Mare By Smuggler</i>	<i>Mare By Smuggler</i>
		<i>One Eye</i>	<i>Haphazard</i>	<i>Haphazard</i>
	<i>Harold</i>	<i>Black Jin</i>	<i>Miss Hervey</i>	<i>Miss Hervey</i>
		<i>Mambrino</i>	<i>Messenger</i>	<i>Pheasant</i>
	<i>Abdallah</i>	<i>By Sour Crout</i>	<i>Black Jin</i>	<i>Messenger</i>
		<i>By Messenger</i>	<i>Mambrino</i>	<i>Black Jin</i>
	<i>Enchantress</i>	<i>Unknown</i>	<i>Turf Mare</i>	<i>Mambrino</i>
		<i>Stevens Belfounder</i>	<i>Sour Crout</i>	<i>Turf Mare</i>
		<i>Velocity</i>	<i>Whirligig Mare</i>	<i>Sour Crout</i>
		<i>Jarys Belfounder</i>	<i>Messenger</i>	<i>Whirligig Mare</i>
	<i>Belfounder Mare</i>	<i>Unknown</i>	<i>Unknown</i>	<i>Messenger</i>
		<i>Stevens Belfounder</i>	<i>Unknown</i>	<i>Unknown</i>
		<i>Velocity</i>	<i>Wroofs Pretender</i>	<i>Wroofs Pretender</i>
		<i>Unknown</i>	<i>Mare By Smuggler</i>	<i>Mare By Smuggler</i>
		<i>Canadian Pilot</i>	<i>Havoc</i>	<i>Haphazard</i>
		<i>Unknown</i>	<i>Chanticleer Mare</i>	<i>Miss Hervey</i>
	<i>Pilot Jr</i>	<i>Canadian Pilot</i>	<i>Alfred</i>	
		<i>Jeanne D'arc</i>	<i>Unknown</i>	
		<i>Havoc</i>	<i>Sir Charles</i>	
		<i>Nancy Pope</i>	<i>Chanticleer Mare</i>	
		<i>Nancy Taylor</i>	<i>Alfred</i>	
	<i>Midnight</i>	<i>Boston</i>	<i>Unknown</i>	
		<i>Alice Carneal</i>	<i>Sir Archy</i>	
		<i>Lexington</i>	<i>Citizen Mare</i>	
		<i>Glencoe</i>	<i>Chanticleer</i>	
	<i>Twilight</i>	<i>Sister To Tuckahoe</i>	<i>Camilla</i>	
		<i>Sarpedon</i>	<i>Medley</i>	
		<i>Rowena</i>	<i>Symes Wildair Mare</i>	
	<i>Daylight</i>	<i>Sultan</i>		
		<i>Trampoline</i>		
		<i>Wagner</i>		
		<i>Darkness</i>	<i>Sumper</i>	
			<i>Lady Grey</i>	
			<i>Selim</i>	
			<i>Bacchante</i>	
			<i>Tramp</i>	
			<i>Web</i>	
			<i>Sir Charles</i>	
			<i>Maria West</i>	
			<i>Sir Richard Tonson</i>	
			<i>Ogles Oscar Mare</i>	

Traces to **The Spanker Mare** in the dam of Jay Eye See

INBREEDING TO SUPERIOR FEMALES

SUPERIOR FEMALES

I borrow the heading for this chapter from the previously noted book by the same name written by Romy Faversham and Leon Rasmussen. Inbreeding is taboo amongst most breeders since the fear is that faults in the individuals will be duplicated and the result will be disastrous for not only the breeding in question but for the breed as a whole. Like so many things in life, however, inbreeding, when done in moderation, can be a very rewarding experience. The Spanker Mare, after all, is reputed to be the origin of the species when it comes to racehorses, and inbreeding cannot get any closer than was the case in her pedigree.

Faversham and Rasmussen have done an excellent job of explaining inbreeding as an approach to producing excellence in race horses and there are several quotes from their book that are worth repeating here.

“Inbreeding is the duplication of an ancestor (male or female) within a stipulated number of generations of an individual’s pedigree.”

James C Harrison, in his authoritative chapter on bloodlines and breeding in the original United States

Trotting Association book called “*Care And Training Of The Trotter and Pacer*” provides an excellent overview of breeding theories and in so doing defines inbreeding as occurring any time the sum of the generations of the duplicated individual is six or less. In other words if the individual occurs as the grandsire (second generation) and also shows up as the grandsire of the dam (third generation) the cross is 2x3 to that individual, a total of 5 and therefore inbred as would be such combinations as 3x3, 2x4, 4x2 etc.

It is not my intent to make a case for or against inbreeding as a breeding strategy, but it would appear to have had an effect of long lasting significance on the performance of today’s race horses particularly where it involves the maternal lines within the pedigree and certain superior female individuals. In another quote from Faversham and Rasmussen they ask: “*What makes a family superior? While most families (and certainly, the majority of their branches) never last for more than a few generations, those considered superior have endured over long periods of time. This is, of course, primarily dependent upon their ability to continue issuing important runners and producers. The most remarkable pattern amongst key representatives from families that have endured and thrived is the duplication of a maternal ancestor in their pedigree.*“

Throughout racing history there have been mares that have captured the attention of the public for their remarkable careers on the racetrack. All too often these mares have not carried on their excellence into the breeding shed, which must be one of the more puzzling aspects of Standardbred breeding. On the other hand there are many examples of mares that were unable to race for a variety of reasons that became stellar broodmares, in many cases outperforming their more illustrious full sisters that raced.

There are many reasons for the failure of any one mare to race to the potential in her pedigree, most of which are man made. There are also many reasons for the failure of successful race mares to become successful broodmares, most of which are also unfortunately man made. In this day of speed and high stress, accompanied by the chemical consequences of the pressure to win at all costs, it is little wonder that the stars of the track often fail miserably to pass along their talents to their offspring. Such was not always the case.

In the early 1900's there were a number of mares that excelled on the racetrack that have proven to be an indispensable part of modern racing excellence by virtue of their presence in many of the pedigrees of today's top performers.

HELEN HANOVER was a foal of 1927, by Dillon Volo from a mare by Dillon Axworthy. Since Dillon Volo was also from a Dillon Axworthy mare, Helen Hanover was inbred 2x3 to Dillon Axworthy. Dillon Axworthy was from the mare Adioo Dillon a daughter of Adioo, she being a daughter of Nutwood, son of Miss Russell.

Adioo had several other significant maternal traces to the Spanker Mare. She had two to American Star since she was by Guy Wilkes, who carries both American Star and Mambrino Patchen maternally, and Adioo has a second dam by Dictator, also from an American Star mare. Adioo Dillon was by Sidney Dillon whose second dam was by Harry Clay. He had a dam by Jary's Bellfounder, as did Hambletonian, and the maternal line of Bellfounder traces back to a Bartlets Childers mare. The dam of Jary's Bellfounder traces to Bartlets Childers twice maternally which may help to explain the success of the daughters of Hambletonian as broodmares.

The 2x3 inbreeding to the legacy of Miss Russell, coupled with the other traces to Diomed and the Spanker Mare maternally that are present in Helen Hanover, has resulted in an exceptional number of the top performers of modern times and none more evident than the maternal legacy of Golden Miss, a daughter of Ensign Hanover, son of Helen Hanover.

In many ways Helen Hanover parallels Miss Russell as a broodmare. She produced several gifted racehorses for their day and several daughters that produced on, however it is through her son, Ensign Hanover that her greatest impact has been felt. Helen Hanover had four sons actually, two by Billy Direct including Ensign Hanover, and one each by Bunter and Red Ace but before we look at them we will look at her daughters.



Ensign Hanover, a chestnut son of Billy Direct, won the first Little Brown Jug driven by Curly Smart. Source : Hoofbeats

Helen Hanover had six daughters including one each by Billy Direct, Calumet Chuck, Red Ace and Peter The Brewer and two by Bunter. Only Peter The Brewer brought anything worthwhile to add to the

maternal strength of Helen Hanover and this daughter was Norette Hanover. While two of her other daughters, Mamie Hanover by Calumet Chuck and Cleo Hanover by Bunter went on to add several hundred performers, but no champions, to the maternal family through their daughters and subsequent female descendants, it would appear that the potential of Helen Hanover was wasted in these instances by breeding her to sires with little to offer from their own maternal lines to complement those of Helen Hanover.

This was not the case with Norette Hanover whose sire Peter The Brewer comes from a dam that had two traces to Pilot Jr through Kate and Juliet, two traces to Tiger, son of Jane Hunt and at least four other traces to the Brothers Childers including traces through Grey Eagle and through Boston, sire of the dam of Miss Russell. Norette's most famous daughter is Barbara Direct by Billy Direct which is of historical interest since it is one of the first times that a mare has in her pedigree all four sources of Diomed namely Miss Russell, American Star, Mambrino Patchen and Midnight. As noted earlier Billy Direct carries Midnight as well as American Star from his own maternal lines. Barbara Direct has a maternal legacy that has produced fourteen performers that have made over \$500,000 and two millionaires in Village Connection and World Champion Jennas Beach Boy.

		<i>Pilot Medium</i>	<i>Happy Medium</i>	Hambletonian Princess Pilot Jr Jenny Lind Sentinel Maid Of Lexington Octofoon Jr Dixie Onward Queen B Allie Gaines Jenny George Wilkes Mother Lumps Mambrino King Allie Mambrino William L Lou Kentucky Prince Young Daisy Sidney Venus Guy Wilkes By By
	<i>Peter The Great</i>	<i>Santos</i>	<i>Tackey</i>	George Wilkes Belle Patchen Strathmore Mary S Harry Clay Modesty Cooper Medium Topsy George Wilkes Lady Bunker Mambrino Boy Bird Mitchell Clark Chief Kentucky Queen Strideaway Old Daisy Santa Claus Sweetness Captain Webster Harry Clay Mare George Wilkes Lady Bunker Nutwood
<i>Peter Volo</i> t,4,2:02	<i>Nervolo Belle</i>	<i>Nervolo</i>	<i>Grand Sentinel</i>	Rapidan Hambletonian Princess Pilot Jr Jenny Lind Sentinel Maid Of Lexington Octofoon Jr Dixie Onward Queen B Allie Gaines Jenny George Wilkes Mother Lumps Mambrino King Allie Mambrino William L Lou Kentucky Prince Young Daisy Sidney Venus Guy Wilkes By By
Dillon Volo		<i>Josephine Knight</i>	<i>Shadow</i>	George Wilkes Belle Patchen Strathmore Mary S Harry Clay Modesty Cooper Medium Topsy George Wilkes Lady Bunker Mambrino Boy Bird Mitchell Clark Chief Kentucky Queen Strideaway Old Daisy Santa Claus Sweetness Captain Webster Harry Clay Mare George Wilkes Lady Bunker Nutwood
Dillon Axworthy		<i>Axworthy</i>	<i>Colbert</i>	George Wilkes Belle Patchen Strathmore Mary S Harry Clay Modesty Cooper Medium Topsy George Wilkes Lady Bunker Mambrino Boy Bird Mitchell Clark Chief Kentucky Queen Strideaway Old Daisy Santa Claus Sweetness Captain Webster Harry Clay Mare George Wilkes Lady Bunker Nutwood
Miss Bertha Dillon t,4,2:02 1/2	<i>Adioo Dillon</i>	<i>Baronmore</i>	<i>Nelly D</i>	George Wilkes Belle Patchen Strathmore Mary S Harry Clay Modesty Cooper Medium Topsy George Wilkes Lady Bunker Mambrino Boy Bird Mitchell Clark Chief Kentucky Queen Strideaway Old Daisy Santa Claus Sweetness Captain Webster Harry Clay Mare George Wilkes Lady Bunker Nutwood
Helen Hanover		<i>Marble</i>	<i>Betterton</i>	George Wilkes Belle Patchen Strathmore Mary S Harry Clay Modesty Cooper Medium Topsy George Wilkes Lady Bunker Mambrino Boy Bird Mitchell Clark Chief Kentucky Queen Strideaway Old Daisy Santa Claus Sweetness Captain Webster Harry Clay Mare George Wilkes Lady Bunker Nutwood
	<i>Axworthy</i>	<i>Axtell</i>	<i>Mambrino Beauty</i>	George Wilkes Belle Patchen Strathmore Mary S Harry Clay Modesty Cooper Medium Topsy George Wilkes Lady Bunker Mambrino Boy Bird Mitchell Clark Chief Kentucky Queen Strideaway Old Daisy Santa Claus Sweetness Captain Webster Harry Clay Mare George Wilkes Lady Bunker Nutwood
	<i>Dillon Axworthy</i>	<i>Marguerite</i>	<i>Axtell</i>	George Wilkes Belle Patchen Strathmore Mary S Harry Clay Modesty Cooper Medium Topsy George Wilkes Lady Bunker Mambrino Boy Bird Mitchell Clark Chief Kentucky Queen Strideaway Old Daisy Santa Claus Sweetness Captain Webster Harry Clay Mare George Wilkes Lady Bunker Nutwood
	<i>Adioo Dillon</i>	<i>Sidney Dillon</i>	<i>Marguerite</i>	George Wilkes Belle Patchen Strathmore Mary S Harry Clay Modesty Cooper Medium Topsy George Wilkes Lady Bunker Mambrino Boy Bird Mitchell Clark Chief Kentucky Queen Strideaway Old Daisy Santa Claus Sweetness Captain Webster Harry Clay Mare George Wilkes Lady Bunker Nutwood
Helen Dillon		<i>Adioo</i>	<i>Sidney Dillon</i>	George Wilkes Belle Patchen Strathmore Mary S Harry Clay Modesty Cooper Medium Topsy George Wilkes Lady Bunker Mambrino Boy Bird Mitchell Clark Chief Kentucky Queen Strideaway Old Daisy Santa Claus Sweetness Captain Webster Harry Clay Mare George Wilkes Lady Bunker Nutwood
		<i>Pilot Medium</i>	<i>Happy Medium</i>	George Wilkes Belle Patchen Strathmore Mary S Harry Clay Modesty Cooper Medium Topsy George Wilkes Lady Bunker Mambrino Boy Bird Mitchell Clark Chief Kentucky Queen Strideaway Old Daisy Santa Claus Sweetness Captain Webster Harry Clay Mare George Wilkes Lady Bunker Nutwood
	<i>Peter The Great</i>	<i>Santos</i>	<i>Tackey</i>	George Wilkes Belle Patchen Strathmore Mary S Harry Clay Modesty Cooper Medium Topsy George Wilkes Lady Bunker Mambrino Boy Bird Mitchell Clark Chief Kentucky Queen Strideaway Old Daisy Santa Claus Sweetness Captain Webster Harry Clay Mare George Wilkes Lady Bunker Nutwood
	<i>Miss Pierette</i>	<i>Guy Wilkes</i>	<i>Grand Sentinel</i>	George Wilkes Belle Patchen Strathmore Mary S Harry Clay Modesty Cooper Medium Topsy George Wilkes Lady Bunker Mambrino Boy Bird Mitchell Clark Chief Kentucky Queen Strideaway Old Daisy Santa Claus Sweetness Captain Webster Harry Clay Mare George Wilkes Lady Bunker Nutwood
	<i>Madam Thompson</i>	<i>Eva</i>	<i>Shadow</i>	George Wilkes Belle Patchen Strathmore Mary S Harry Clay Modesty Cooper Medium Topsy George Wilkes Lady Bunker Mambrino Boy Bird Mitchell Clark Chief Kentucky Queen Strideaway Old Daisy Santa Claus Sweetness Captain Webster Harry Clay Mare George Wilkes Lady Bunker Nutwood
			<i>George Wilkes</i>	George Wilkes Belle Patchen Strathmore Mary S Harry Clay Modesty Cooper Medium Topsy George Wilkes Lady Bunker Mambrino Boy Bird Mitchell Clark Chief Kentucky Queen Strideaway Old Daisy Santa Claus Sweetness Captain Webster Harry Clay Mare George Wilkes Lady Bunker Nutwood
			<i>Lady Bunker</i>	George Wilkes Belle Patchen Strathmore Mary S Harry Clay Modesty Cooper Medium Topsy George Wilkes Lady Bunker Mambrino Boy Bird Mitchell Clark Chief Kentucky Queen Strideaway Old Daisy Santa Claus Sweetness Captain Webster Harry Clay Mare George Wilkes Lady Bunker Nutwood
			<i>Sultan</i>	George Wilkes Belle Patchen Strathmore Mary S Harry Clay Modesty Cooper Medium Topsy George Wilkes Lady Bunker Mambrino Boy Bird Mitchell Clark Chief Kentucky Queen Strideaway Old Daisy Santa Claus Sweetness Captain Webster Harry Clay Mare George Wilkes Lady Bunker Nutwood
			<i>Minnehaha</i>	George Wilkes Belle Patchen Strathmore Mary S Harry Clay Modesty Cooper Medium Topsy George Wilkes Lady Bunker Mambrino Boy Bird Mitchell Clark Chief Kentucky Queen Strideaway Old Daisy Santa Claus Sweetness Captain Webster Harry Clay Mare George Wilkes Lady Bunker Nutwood

Helen Hanover is inbred 3x2 to **Dillon Axworthy**.

The second dam of Dillon Axworthy combines **Nutwood**, son of Miss Russell, with traces to **American Star** and **Mambrino Patchen**

The dam of Jennas Beach Boy, in fact, carries Helen Hanover twice since she is by Cam Fella whose third dam is by Ensign Hanover.

With that kind of maternal power it is highly likely that Jennas Beach Boy will be a sire of top fillies and excellent broodmares especially from mares that carry Helen Hanover. His best filly to date is from a mare by Dexter Nukes, who has a fourth dam by Bullet Hanover, grandson of Helen Hanover. His next best filly is Cannae Peach whose second dam is by Overtrick, a great grandson of Helen Hanover.

His best colt to date is Three Olives whose second dam is by Strike Out, a son of Golden Miss. It is no coincidence either that the mares that Jennas Beach Boy has succeeded with to date are strongly imbued with Adioo in their maternal lines, doubling up the same trace that exists in Helen Hanover by returning lines through Abercrombie, Bret Hanover and Adios mares as well as those of the descendants of Helen Hanover herself.

And that brings us back to Golden Miss and the other special daughters of Ensign Hanover

Ensign Hanover was also by Billy Direct although this likely had no bearing on the match to Helen Hanover. He did, however, benefit from the fact that Billy Direct was an extremely fast horse. It was he, indeed,

that broke the 35-year-old record of Dan Patch with his 1:55 record taken in 1940.

The top three daughters of Ensign Hanover turned out to be among the best known as broodmares as well. They were Golden Miss, Flaming Arrow and Mynah Hanover although there were many of his 97 daughters that produced offspring that are worthwhile looking at if time and space allowed.

Golden Miss was a foal of 1954 from a mare by McKinney Scott, a little known sire with only seven daughters that produced foals tracing to today's performers, and Golden Miss, the only one by Ensign Hanover, was much the best. The maternal side of Golden Miss is practically devoid of traces to anything worthwhile which makes the role of Ensign Hanover all the more remarkable in triggering this maternal line into production.

As the dam of Strike Out, Golden Miss provided another channel for the blood of Helen Hanover to flow through that sire's daughters and he too has become a remarkable influence as a broodmare sire.

Her two daughters Malaysia and Shifting Sands, however, are the focus of our attention here.

Right: The winningest mare by Jennas Beach Boy is Lady Macbeach who is a double copy to Helen Hanover.

			<i>Meadow Skipper</i>	<i>Dale Frost</i>	Hal Dale
				<i>Countess Vivian</i>	Galloway
				<i>Nevele Pride</i>	Kings Counsel
				<i>Pompanette</i>	Filly Direct
				<i>Bye Bye Byrd</i>	Stars Pride
				<i>Armbro Impel</i>	Thankful
				<i>Tar Heel</i>	Florican
				<i>Suave Hanover</i>	Spinster Hanover
				<i>Meadow Skipper</i>	Poplar Byrd
				<i>Laughing Girl</i>	Evalina Hanover
				<i>Bret Hanover</i>	Capetown
				<i>Nan Frost</i>	Dotties Pick
				<i>Meadow Skipper</i>	Billy Direct
				<i>Keystone Mist</i>	Leta Long
				<i>Adios</i>	Adios
				<i>Windshield Wiper</i>	Shy Ann
				<i>Beloved Hanover</i>	Dale Frost
				<i>Oil Burner</i>	Countess Vivian
				<i>Dottie Shadow</i>	Good Time
				<i>Overtrick</i>	Maxines Dream
				<i>Gidget Lobell</i>	Adios
				<i>Voodoo Hanover</i>	Brenna Hanover
				<i>Fulla Napoleon</i>	Dale Frost
				<i>Behold Hanover</i>	Mynah Hanover
				<i>Henry T Adios</i>	Dale Frost
				<i>Greer Hanover</i>	Countess Vivian
				<i>Tar Heel</i>	Bye Bye Byrd
				<i>Wilellen</i>	Meadow Júlia
				<i>Dale Frost</i>	Hal Dale
				<i>Countess Vivian</i>	Adioo Volo
				<i>Bret Hanover</i>	Billy Direct
				<i>Timely Beauty</i>	Norette Hanover
					Meadow Skipper
					Laughing Girl
					Shadow Wave
					Diana Streak
					Solicitor
					Overbid
					Tar Heel
					Gogo Playtime
					Dale Frost
					Countess Vivian
					Dancer Hanover
					Vibrant Hanover
					Dale Frost
					Sarah Napoleon
					Gamecock
					Bewitch Hanover
					Hal Dale
					Adioo Volo
					Nibble Hanover
					Veda Hanover
					Billy Direct
					Leta Long
					Wilmington
					Willola
					Hal Dale
					Galloway
					Kings Counsel
					Filly Direct
					Adios
					Brenna Hanover
					Good Time
					Lorraine

Lady Macbeach is a double copy to **Helen Hanover** and Adioo.
 Her dam and third dam are also double copies to Adioo as are the first three dams of Jennas Beach Boy

Malaysia is the dam of multi millionaire Riyad who took his record of 1:48.4 while beating the best aged pacers of his day. Riyad was by Jate Lobell and the significance of his accomplishments was not lost on the astute breeders of Kentucky as the hunt was on for maternal descendants of Golden Miss to breed to Jate Lobell including two of the daughters of Strike Out producing millionaire Davids Pass and Armbro Mackintosh.

It is Shifting Sands, however, who makes the most of this connection to Jate Lobell through her nine daughters producing to date eighteen \$100,000 plus winners by that sire.

Flaming Arrow is from a mare by Blackstone and her maternal line traces directly to Straytell by Nutwood. This is a branch of what is generally known as the family of Belle Mahone who is in fact the grand daughter of Straytell and the first mare in the family to have more than one daughter produce. Flaming Arrow was bred entirely to Good Time and his son Race Time and produced four daughters of note. Once again it is Jate Lobell that leads the way in top performers with the likes of Classy River Gal and Allamerican Captor among several top performers descending from these daughters.

Mynah Hanover is from the same maternal family as Flaming Arrow being a grand daughter of Belle

Mahone. She had two daughters, one by Good Time and Nan Frost by Dale Frost. This latter sire brings with him a trace to Dillon Axworthy and Adioo through Raider, sire of the dam of Dale Frost. This added boost to the Adioo presence in Ensign Hanover might be what sets this mare apart as the second dam of Cam Fella. It did not hurt either to have her bred to Bret Hanover who also carries Adioo as part of his maternal contribution.

Helen Hanover's influence is not restricted to the daughters of Ensign Hanover by any means. The daughters of Overtick, Bullet Hanover and Strike Out are now features of the maternal lines of such sires as Western Hanover, Cams Card Shark, Dexter Nukes, Falcon Seelster, Jennas Beach Boy, Real Desire, Rustler Hanover, Grinfromeartoeard and Island Fantasy just to name a few and it is noteworthy that of the sires with progeny racing a remarkable characteristic in their top performers is the multiple presence of Adioo in their dams.

This seeming affinity of sires to maternal lines that return what is best in their own maternal makeup is not a new discovery. The same process of affinity works equally well with respect to the modern day presence in pedigrees of Oniska, Kathleen, Hatteras and indeed Margaret Parrish who is such a powerful part of today's female identity in trotters.

Real Desire

p,4,1:482m \$3323606

Deadly Desire

Troublemaker

p,2,T1:54m

Brets Dream

Mystical Mood

Trenton

Whispering Sands

Shifting Sands

Abercrombie

p,4,1:53m

Bergdorf

Life Sign

p,3,1:503m \$1912454

Albatross

Three Diamonds

p,3,1:531m

Ambiguity

Most Happy Fella

Bret Hanover

Susan Knight

Meadow Skipper

Tempted

Race Time

Henry T Adios

Silent Majority

Hobby Horse Tar

Duane Hanover

Princess Best

Meadow Skipper

Voodoo Hanover

Bret Hanover

K Nora

Meadow Skipper

Laughing Girl

Bret Hanover

Susan Knight

Meadow Skipper

Tempted

Race Time

Henry T Adios

Hobby Horse Tar

Duane Hanover

Princess Best

Meadow Skipper

Voodoo Hanover

Bret Hanover

K Nora

Meadow Skipper

Laughing Girl

Bret Hanover

Susan Knight

Meadow Skipper

Tempted

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Bret Hanover

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Meadow Skipper

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Bret Hanover

Susan Knight

Meadow Skipper

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K Nora

Meadow Skipper

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Susan Knight

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Meadow Skipper

Tempted

Race Time

Henry T Adios

Hobby Horse Tar

Duane Hanover

Princess Best

Meadow Skipper

Voodoo Hanover

Bret Hanover

K Nora

Meadow Skipper

Laughing Girl

Bret Hanover

MARGARET PARRISH is a mare that I have already touched on with respect to her pedigree but it is worth repeating that she, like Helen Hanover, was inbred 3x2 maternally to a sire linked to Miss Russell, in this case through Arion whose dam was Manette, daughter of Nutwood..

Margaret Parrish had several top producing daughters and knowing who they are and who their sons and daughters are, is important in tracking this connection. Some of the sires that have sprung from Margaret Parrish maternally are Rodney, Super Bowl, Valley Victory, Big Towner, Niatross and many others, and their daughters carry the Margaret Parrish influence accordingly.

She had fourteen foals, eight of which were fillies. Of the six males there were two, Guy Parrish and Arion Guy both by Guy Axworthy, which went on to a stallion career. Guy Parrish went to New Zealand where his daughters have created a maternal identity that pervades the breeding in both New Zealand and Australia. His daughter Helens Bay is the maternal line of the great Cardigan Bay, the first down under horse to ever win over \$1 million and one of the first to come to North America where he was competitive at the highest levels of the sport. Cardigan Bay's second dam, Pleasure Bay, was by Quite Sure who carried a trace to Miss Russell through Arion, the same trace that dominates the pedigree of Margaret

Parrish and her son Guy Parrish. Her other son, Arion Guy, saw limited action in North America and most of his daughters were bred in Sweden. Before leaving North America though he produced Aileen Arion who is the maternal line of Bettors Delight and Matts Scooter among many other top performers.

The best of Margaret Parrish's fillies as a race mare was Margaret Castleton by Guy Castleton. This sire's dam was Emily Ellen and thus Arion was again present to give Margaret Castleton a double maternal trace to Arion just like her mother. She also picked up Midnight from the maternal line of Emily Ellen and like Barbara Direct, granddaughter of Helen Hanover, she became one of the first mares to inherit all four principal sources of Diomed in North America. She took a record of 1:59 ¼ in an era when such speed from trotting fillies was unheard of and went on to a stellar broodmare career.

In addition to producing a sire called Mighty Sun she had eight producing daughters. Mighty Sun's principal claim to fame is as the sire of the dam of the great Tar Heel mare Sunnie Tar, and the rest of his small production of mares were better than average in producing top performers.

The daughters of Margaret Castleton, like their mother, were excellent broodmares.

Margaret Parrish

t,4,2:06 1/4

Arion

Lady Leyburn

t,3,2:23 1/2

Margaret Leyburn

Rose Leyburn

Margaret Parrish is inbred to **Arion** 3x2 maternally, a source of **Miss Russell**, and **American Star**

Bingen
t,2:06

Vice Commodore

May King

Young Miss
Arion

Narion

Nancy Hanks

Electioneer

Arion

Manette

Lady Leyburn

Wilton

Margaret Leyburn

Rose Leyburn

Electioneer

May Queen

Young Jim

Miss Mambrino

Electioneer

Manette

Happy Medium

Nancy Lee

Hambletonian

Green Mountain Maid

Nutwood

Emblem

George Wilkes

Alley

Onward

Mamie

Hambletonian
Green Mountain Maid

Norman

Jennie

George Wilkes

Lear Mare

Red Wilkes

Miss Clark

Hambletonian

Green Mountain Maid

Nutwood

Emblem

Hambletonian

Princess

Dictator

Sophy

Abdallah

Charles Kent Mare

Harry Clay

Shanghai Mary

Belmont

Miss Russell

Tom Moore

Lady Sanford

Abdallah

Charles Kent Mare

Andruss Hambletonian

Isaiah Wilcox Mare

Hambletonian

Clara

Edwin Forrest

Sophronia

Mambrino

Amazonia

Imp Bellfounder

One Eye

Cassius M Clay Jr

Bellfounder Mare

Irons Cadmus

Jenny By American Star

Abdallah

Belle

Pilot Jr

Sally Russell

Jupiter Abdallah

Nelly Moore

American Star

Old Sorrel

Abdallah

Charles Kent Mare

Henry Clay

Telegraph

Abdallah

Charles Kent Mare

Flying Morgan

Kate By Black Hawk

Hambletonian

Dolly Spanker

Mambrino Chief

Fanny

Almont

Maggie Gaines

Longs American Boy

Gardner Mare

Mighty Margaret by Volomite produced The Intruder by Scotland and his daughters have been popular sources of the Margaret Parrish influence including two very special mares in Important, the dam of Noble Gesture and Impish, the dam of Pay Dirt, one of the very best broodmare sires in Scandinavia. The daughters of Impish have been equally good and Impish is the maternal line of Hambletonian Winner Scarlet Knight among many other top performers.

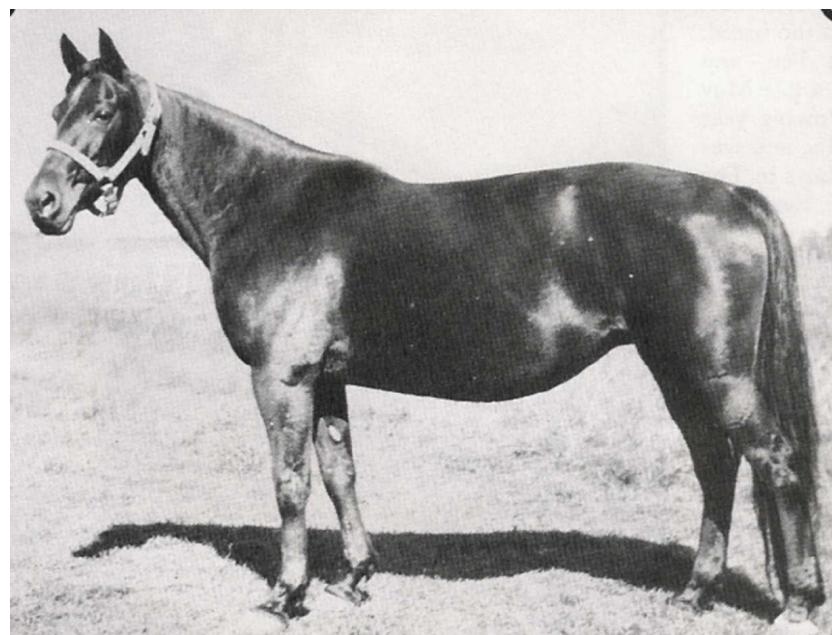
Queen Martha by Darnley is the maternal line of millionaire trotter Hanko Angus among many other excellent performers.

Margo Mite by Volomite created a family of mostly pacers as well as being the dam of Capetown by Hoot Mon. He established a legacy with his daughters who formed much of the basis for the broodmare band at Armstrong Bros. in Canada.

Victory Mite by Volomite was the dam of Scotch Victor whose daughters have been excellent broodmares in Denmark where he made his stud career. She also produced a family of trotters and pacers but her best credit is her direct descendant Banker Hall, another millionaire trotter.

Pegomyheart by Mighty Song established a family that is virtually all pacers with millionaire Runnymede Lobell being the top credit.

Nihilator heads the list of credits for the branch of the family coming through My Margie. Like her full sister Pegofmyheart she was by pacing sire Mighty Sun and her family branch produced mostly pacers including three millionaires in Nihilator, Incredible Finale and Allamerican Ingot, all pacers.



*Margaret Arion's descendants include some of the world's finest trotters.
Source: Hoofbeats*

Margaret Arion was a full sister to the first 3-year-old trotter to trot faster than 2:00, Arion Guy, but did not race up to her Kentucky Futurity winning brother. She has more than made up for her lack of speed with a tremendous run as a broodmare. In researching this book I reviewed the issues, from 1980 on, of

Hoofbeats, the publication of the United States Trotting Association. I came up with only one article dealing with the maternal side of breeding, other than the excellent columns of Sidney Lerner, and that dealt with Margaret Arion and her legacy as the foundation of Valley Victory among others. She is also the fifth dam of Fresh Yankee, the first North American horse to earn over \$1 million.



Princess Peg was one of three offspring of Margaret Arion to win the Kentucky Futurity, a race also won by her full brother Arion Guy.
Source: *The Kentucky Futurity* by Curt Greene

To quote the author of the article, Dean Hoffman: “Today Margaret Arion shows up prominently in the pedigrees of the three leading American sired money winning juvenile trotting colts of 1988. These colts are Keyser Lobell, Flying Irishman and Valley Victory. By any measure, that is a remarkable

testimony to the lasting influence of this mare, coming as it did in 1988 – some 60 years after her first foal was born.”

I suspect that the same could be said of Margaret Parrish herself considering the following.

In 2002 the three-year-old horse of the year in North America was Kadabra, a horse that everyone shook their head over when they looked at his pedigree. If they were familiar at all with the maternal identity of the top performers in the sport today they would have had no reason to call it “*a pedigree from Hell*” as one noted horseman was heard to say.

The pedigree of Kadabra may be from hell with respect to the sires involved but not when you look at the maternal connections. In that respect Kadabra has one of the most powerful maternal lines I have ever seen and what makes it so special is the overwhelming presence of Margaret Parrish.

I have long been an advocate of Margaret Parrish as an important influence on modern day trotting success. These days most of the top performers have at least one and sometimes two traces to this ancestral mare. Kadabra's dam, Quillo, has four and it gets better than that since she also carries a double trace to Adioo, a grand daughter of Nutwood, through Dillon Axworthy as well as several other significant traces.

Her traces to Margaret Parrish and Miss Russell begin with her sire Trottin Happy whose direct maternal line goes through a daughter of Dillon Axworthy and hence to Miss Russell through Adioo.

The second dam is by Arsenal who has a second dam through Rodney who is from a daughter of Protector, grandson of Margaret Parrish. Arsenal also carries a trace to Nutwood via his dam by Stars Pride that leads to Oniska who is also inbred 2x3 to the Diomed source through Lida W, another Nutwood daughter.

Flower Child, sire of the third dam, carries Margaret Parrish twice since his dam Maura traces to the great mare through her sire Demon Hanover and her own female line and Demon Hanover also carries traces to the mares Oniska and Adioo.

B F Coaltown is the sire of the fourth dam and he is from a Rodney mare and therefore goes back to Margaret Parrish through Protector. The fifth dam carries a maternal trace to Miss Russell through Worthy Boy while the sixth dam Magic Hanover has yet another trace to Arion through her sire Nibble Hanover.

Kadabra's sire Primrose Lane also has a dam that carries two traces to Adioo through Dillon Axworthy and similarly has Margaret Parrish twice with one trace through Demon Hanover and the other through

Dillola, a daughter of Protector, thus duplicating two of the traces to Margaret Parrish found in Kadabra's dam.

Quillo, the dam of Kadabra was an only foal and unraced but she was packed with maternal potential and has clearly shown that with not only Kadabra but also with two other sons of note. She is three for three in producing \$100,000 plus winners, a feat that few mares can emulate and the secret is not necessarily tied to the sires to which she is bred but to the maternal connections she carries in her own pedigree

In my recent investigations in this regard I have found, however, a remarkable coincidence showing that siring success is to some extent predictable based on identifying the maternal identity at work in the sire and breeding to mares that carry double traces to the same maternal connections. This appears to occur regardless of the sex of the offspring. It is, therefore, theoretically possible to predict which mares are most suitable for which sires regardless of the names of the sires involved but based strictly on which maternal lines they carry. Such an approach could lead to many more Kadabras from so-called unfashionable bloodlines and what a boon that would be in reversing the trend of our gene pool, especially in trotters.

A pedigree from Hell maybe but from my vantage point a match made in Heaven.

		<i>Nevele Pride</i>	<i>Stars Pride</i>	Worthy Boy
		<i>Thankful</i>		Stardrift
		<i>Spectator</i>		Hoot Mon
		<i>Mimi Rodney</i>		Magnolia Hanover
		<i>Scotch Nibs</i>		Florican
		<i>Frances Bulwark</i>		Picturesque
		<i>Lord Peter</i>		Rodney
		<i>Comtesse</i>		Mimi Hanover
		<i>Worthy Boy</i>		Nibble Hanover
		<i>Stardrift</i>		Hattie G
		<i>Spencer Scott</i>		Bulwark
		<i>Grace Hanover</i>		Frances The Great
		<i>Rodney</i>		Peter Rutherford
		<i>Mimi Hanover</i>		My Lady Hanover
		<i>Demon Hanover</i>		Ronald Day
		<i>Brisk Day</i>		Mari Dennis
		<i>Speedy Scot</i>		Volomite
		<i>Missile Toe</i>		Warwell Worthy
		<i>Stars Pride</i>		Mr Mcelwyn
		<i>Laurita Hanover</i>		Dillcisco
		<i>Rodney</i>		Scotland
		<i>Mimi Hanover</i>		May Spencer
		<i>Demon Hanover</i>		Dillon Axworthy
		<i>Brisk Day</i>		Great Medium
		<i>Speedy Scot</i>		Spencer Scott
		<i>Missile Toe</i>		Earls Princess Martha
		<i>Stars Pride</i>		Dean Hanover
		<i>Laurita Hanover</i>		Hanover Maid
		<i>Rodney</i>		Dean Hanover
		<i>Mimi Hanover</i>		Sorceress
		<i>Demon Hanover</i>		Guy Day
		<i>Brisk Day</i>		Dillola
		<i>Speedy Scot</i>		Speedster
		<i>Missile Toe</i>		Scotch Love
		<i>Stars Pride</i>		Florican
		<i>Laurita Hanover</i>		Worth A Plenty
		<i>Rodney</i>		Worthy Boy
		<i>Mimi Hanover</i>		Stardrift
		<i>Demon Hanover</i>		Hoot Mon
		<i>Brisk Day</i>		Lark Hanover
		<i>Speedy Scot</i>		Spencer Scott
		<i>Missile Toe</i>		Earls Princess Martha
		<i>Stars Pride</i>		Dean Hanover
		<i>Laurita Hanover</i>		Hanover Maid
		<i>Rodney</i>		Hoot Mon
		<i>Mimi Hanover</i>		Nora
		<i>Demon Hanover</i>		Mr Mcelwyn
		<i>Brisk Day</i>		Bertha C Hanover
		<i>Speedster</i>		Scotch Love
		<i>Florican</i>		Florican
		<i>Worth A Plenty</i>		Worth A Plenty
		<i>Worthy Boy</i>		Worthy Boy
		<i>Stardrift</i>		Stardrift
		<i>Rodney</i>		Rodney
		<i>Candid</i>		Candid
		<i>Florican</i>		Florican
		<i>Mighty Phyllis</i>		Mighty Phyllis
		<i>Demon Hanover</i>		Demon Hanover
		<i>My Margie</i>		My Margie
		<i>Galophone</i>		Galophone
		<i>Sis Rodney</i>		Sis Rodney
		<i>Worthy Boy</i>		Worthy Boy
		<i>Magic Hanover</i>		Magic Hanover

HATTERAS is another mare that is worth looking at closely. She was born in 1898 and was by Wilkes Boy whose dam, Betty Brown, was by Mambrino Patchen. The dam of Hatteras was Kincora by Mambrino Patchen making Hatteras 3x2 inbred to this Diomed source in similar fashion to Helen Hanover and Margaret Parrish. It gets better though since Kincora's second dam was also Betty Brown by Mambrino Patchen. To further add to the inbreeding we find that Kincora's dam is by another son of Mambrino Chief called Mambrino Tranby and his dam Pickles is also the dam of the same Betty Brown. The strength of this inbred maternal line is further enhanced by the fact that the third dam of Betty Brown is by Grey Eagle, an important source of Diomed as we have noted before.

Hatteras had only one daughter of note and that breeding to Bingen produced Pilatka who in turn produced Palestrina by Atlantic Express, the dam of World Champion Dean Hanover. This sire's daughters have been directly responsible for such important sires as Speedster, Hickory Smoke and Hickory Pride.

While double traces to Hatteras are rare they are nevertheless dynamic as we see in the best by Garland Lobell such as Cameron Hall and Andover Hall from the full sisters Amour Angus and Canne Angus respectively. Their dam is by Magna Force whose dam is 4x4 to Dean Hanover maternally. Their second

dam is by Texas whose dam is inbred 3x3 to Dean Hanover maternally. In fact thirteen of the top twenty performers, including eight of the top ten, are from mares that double up Hatteras and/or Kathleen in their maternal lines while four of the exceptions are from mares that double up Margaret Parrish.

Garland Lobell's second dam has doubles to both Kathleen and Hatteras and his dam carries a double to Kathleen through Speedy Crown and through Garland Lobell's fourth dam by Spencer. The second dam, Genya Hanover is inbred 4x2 to Dean Hanover.



*Dean Hanover after his record mile driven by Miss Alma Sheppard
Source: The American Trotter*

	<i>Abdallah</i>	<i>Mambrino</i>	Messenger By Sour Crout
	<i>Amazonia</i>	<i>Amazonia</i>	By Messenger Unknown
	<i>Charles Kent Mare</i>	<i>Imp Bellfounder</i>	Stevens Bellfounder
	<i>One Eye</i>	<i>One Eye</i>	Velocity
	<i>Henry Clay</i>	<i>Andrew Jackson</i>	Bishops Hambletonian
	<i>Telegraph</i>	<i>Lady Surrey</i>	Silvertail
	<i>Mambrino Chief</i>	<i>Cassius M Clay</i>	Young Bashaw
	Mambrino Patchen	<i>Abdallah I Mare</i>	Unknown
	<i>Gano Mare</i>	<i>Mambrino Paymaster</i>	Canadian
	<i>Mambrino Chief</i>	<i>Eldridge Mare</i>	Unknown
	<i>Browns Bellfounder Mare</i>	<i>Gano</i>	Henry Clay
	<i>Mambrino Paymaster</i>	<i>Son Of Sir William Mare</i>	Jersey Kate
	<i>Mambrino Chief</i>	<i>Mambrino Paymaster</i>	Abdallah I
	<i>Eldridge Mare</i>	<i>Eldridge Mare</i>	Lawrences Eclipse Mare
	<i>Browns Bellfounder</i>	<i>Gano</i>	Mambrino
	<i>Grey Eagle Mare</i>	<i>Son Of Sir William Mare</i>	Paymaster Mare
	<i>Mambrino</i>	<i>Mambrino Paymaster</i>	Messenger Duroc
	<i>Paymaster Mare</i>	<i>Eldridge Mare</i>	Unknown
	<i>Messenger Duroc</i>	<i>Browns Bellfounder</i>	American Eclipse
	<i>Unknown</i>	<i>Lady Allport</i>	Betsey Richards
	<i>American Eclipse</i>	<i>Grey Eagle</i>	Son Of Sir William
	<i>Betsey Richards</i>	<i>Non Plus Mare</i>	Unknown
	<i>Son Of Sir William</i>	<i>Mambrino</i>	Messenger
	<i>Unknown</i>	<i>Paymaster</i>	By Sour Crout
	<i>Unknown</i>	<i>Feather Mare</i>	Paymaster
	<i>Duroc</i>	<i>Hambletonian</i>	Feather Mare
	<i>Millers Damsel</i>	<i>Satinet</i>	Hambletonian
	<i>Sir Archy</i>		Satinet
	<i>Rattle Mare</i>		
	<i>Sir William</i>		
			Unknown
			Mambrino
			Paymaster Mare
			Messenger Duroc
			Unknown
			Mambrino Paymaster
			Eldridge Mare
			Browns Bellfounder
			Grey Eagle Mare
			Mambrino Paymaster
			Eldridge Mare
			Gano
			Son Of Sir William Mare
			Mambrino Paymaster
			Eldridge Mare
			Browns Bellfounder
			Grey Eagle Mare

Hatteras is inbred 3x2 to **Mambrino Patchen** and her dam Kincora is inbred 1x3 to the same sire
She also has **Grey Eagle Mare** doubled in her pedigree, another significant source of The Spanker Mare

ONISKA is the dam of San Francisco, an unsung sire whose influence in pedigrees goes far further than his reputation. His sire line traces back to George Wilkes, a son of Hambletonian, but it is his maternal lines that have made him such an influence on the pedigrees of pacers and especially trotters worldwide.



San Francisco stood at Walnut Hall in Kentucky and his success as a sire did much to establish the reputation of that famous Kentucky farm. Source: The American Trotter

He was a foal of 1903 and in the words of John Hervey “*he was one of the most perfectly gaited stallions of his generation.*”

His dam was Oniska by Nutwood Wilkes and as noted earlier she was inbred 2x3 to Lida W, a daughter of

Nutwood, son of Miss Russell. In addition Lida W is a three quarter sister in blood to California Nutwood, sire of Oniska’s second dam.

Oniska’s only foal of consequence was San Francisco and her inbred legacy to Miss Russell is carried forward solely by him through his daughters.

One of these was Cita Frisco, dam of the epochal sire Volomite, a legend that we will examine later since his influence deserves much more than just passing mention.

Some of San Francisco’s daughters ended up in Europe where they play a major part in many of today’s top trotters in various countries including France.

Perhaps the most influential maternal legacy on this continent, other than through the daughters of Volomite, however, is through Dillcisco, the second dam of Stars Pride. Dillcisco’s second dam was by Baron Dillon, another sire from a daughter of Nutwood, thus doubling up the legacy of Miss Russell through that sire again.

In addition to passing the torch to Stars Pride, Dillcisco is also the dam of Calumet Delco, a sire exported to France where his strength as a broodmare sire is clearly noticeable.

Oniska

Bayline

Puss

Unknown

Oniska is inbred 2x3 to **Lida W**, a daughter of Nutwood, he a son of Miss Russell
Her dam, Bayline, is inbred 3x3 to **Nutwood** on sire line.

Nutwood Wilkes

Lida W

Direct Line

Lida W

Nutwood

California Nutwood

Fanny Patchen

George Wilkes

Guy Wilkes

t,2:15 1/4

Lady Bunker

Nutwood

Belle

Direct

Hambletonian

Dolly Spanker

Mambrino Patchen

Lady Dunn

Belmont

Miss Russell

George M Patchen Junior

Rebel Daughter

Dictator

Dolly

Nutwood

Belle

Nutwood

California

Nutwood

Fanny Patchen

Abdallah

Charles Kent Mare

Henry Clay

Telegraph

Mambrino Chief

Gano Mare

American Star

Roberts Mare

Abdallah

Belle

Pilot Jr

Sally Russell

George M Patchen

Belle By Bellfounder

Williamsons Belmont

Unknown

Hambletonian

Clara

Mambrino Chief

Fanny

Belmont

Miss Russell

George M Patchen Junior

Rebel Daughter

Belmont

Miss Russell

George M Patchen Junior

Laura

Mambrino
Amazonia
Imp Bellfounder
One Eye
Andrew Jackson
Lady Surrey
Cassius M Clay
Abdallah 1 Mare
Mambrino Paymaster
Eldridge Mare
Gano
Son Of Sir William Mare
Stockholms American Star
Sally Slouch
Tiger
Unknown
Hambletonian
Katy Darling
Mambrino Chief
Belle Lupe
Canadian Pilot
Nancy Pope
Boston
Maria Russell
Cassius M Clay
Mare By Headem
Bellfounder
Unknown
American Boy

Prunella
Abdallah 1
Charles Kent Mare
American Star
Mckinstry Mare
Mambrino Paymaster
Eldridge Mare
Ben Franklin
Nance
Abdallah
Belle
Pilot Jr
Sally Russell
George M Patchen
Belle
Williamsons Belmont
Unknown
Abdallah
Belle
Pilot Jr
Sally Russell
George M Patchen
Belle
Unknown
Unknown

DARDANELL is a mare of even less profile than Oniska. This incestuously bred mare is probably the most guarded secret in Standardbred breeding. We do not know how it happened but somehow a young stallion called Gamar and his full sister Gavatte II got together and the result was Dardanell.

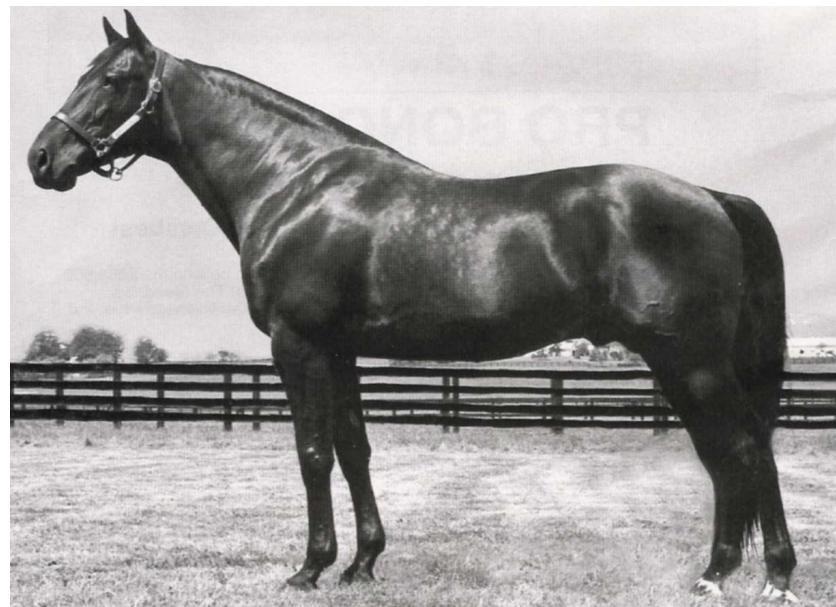
No doubt this was an accident but a fortunate one, perhaps, as it turns out. Dardanell had just one foal called Lady Otis and she in turn had a son called Prince Pulaski Jr. He in turn had one daughter of note in Ella Brown who became the dam of Walter Direct.

The only thing in this sequence of events that concerns us, however, is the parentage of the siblings who started it all.

They were by Tekmar whose dam was Irma by Nutwood. Their dam was by Milroi whose dam was also a daughter of Nutwood called Manon. Add in a trace to Mambrino Patchen through the third dam and you have a mare more intensely bred to Miss Russell than any other in the Trotting Register.

What then is the end result of this extreme case of maternal inbreeding? We find the results through the daughters of Walter Direct including La Paloma and Maxine Direct. The former is the maternal source of World Champion Miss Easy, by far the fastest pacing filly of her day, while the latter is the real beginning

for the maternal family of Huldah M leading to Most Happy Fella.



Most Happy Fella has established a line of sires that includes the sons of Cam Fella and No Nukes. Source: Times In Harness – 2002 Almanac

Other daughters of Walter Direct are responsible for several outstanding racehorses and a host of sires such as millionaire JD's Buck.

The five inbred mares I have illustrated are not directly responsible for maternal families as such but each has a significant role to play in the development of the maternal identity of the Standardbred.

Dardanell

		<i>George Wilkes</i>	<i>Hambletonian</i>	Abdallah 1
			<i>Dolly Spanker</i>	Charles Kent Mare
			<i>Mambrino Patchen</i>	Henry Clay
			<i>Estella</i>	Telegraph
			<i>Belmont 1864</i>	Mambrino Chief
			<i>Miss Russell</i>	Gano Mare
			<i>Happy Medium</i>	Australian
			<i>Maggie Keene</i>	Fanny G
			<i>George Wilkes</i>	Abdallah
			<i>Lady Bunker</i>	Belle
			Nutwood	Pilot Jr
				Sally Russell
				Hambletonian
				Princess
				Mambrino Hatcher
				Laura Fair
				Hambletonian
				Dolly Spanker
				Mambrino Patchen
				Lady Dunn
				Belmont
				Miss Russell
				Hambletonian Chief
				Manton
				Woodford Mambrino
				Vicara
				Cuyler
				Mary Mambrino
				George Wilkes
				Alley
				Hambletonian Mambrino
				Gilbert Mare
				Abdallah 1
				Charles Kent Mare
				Henry Clay
				Telegraph
				Mambrino Chief
				Gano Mare
				Australian
				Fanny G
				Abdallah
				Belle
				Pilot Jr
				Sally Russell
				Hambletonian
				Princess
				Mambrino Hatcher
				Laura Fair
				Hambletonian
				Dolly Spanker
				Mambrino Patchen
				Lady Dunn
				Belmont
				Miss Russell
				Hambletonian Chief
				Manton
				Woodford Mambrino
				Vicara
				Cuyler
				Mary Mambrino
				George Wilkes
				Alley
				Hambletonian Mambrino
				Gilbert Mare
		<i>Alcantara</i>	<i>Alma Mater</i>	
			<i>Nutwood</i>	
			<i>Maggie Medium</i>	
			<i>Guy Wilkes</i>	
			<i>Manon</i>	
			<i>Prodigal</i>	
			<i>Annie Wilton</i>	
			<i>George Wilkes</i>	
			<i>Alma Mater</i>	
			Nutwood	
			<i>Maggie Medium</i>	
			<i>Guy Wilkes</i>	
			<i>Manon</i>	
			<i>Prodigal</i>	
			<i>Annie Wilton</i>	
		<i>Gavatte</i>	<i>Anna Gallis</i>	
			<i>George Wilkes</i>	
			<i>Alma Mater</i>	
			<i>Nutwood</i>	
			<i>Maggie Medium</i>	
			<i>Guy Wilkes</i>	
			<i>Manon</i>	
			<i>Prodigal</i>	
			<i>Annie Wilton</i>	
		<i>Tekmar</i>	<i>Alcantara</i>	
			<i>Alma Mater</i>	
			<i>Nutwood</i>	
			<i>Maggie Medium</i>	
			<i>Guy Wilkes</i>	
			<i>Manon</i>	
			<i>Prodigal</i>	
			<i>Annie Wilton</i>	
		<i>Gamar</i>	<i>Milroi</i>	
			<i>Alma Mater</i>	
			<i>Nutwood</i>	
			<i>Maggie Medium</i>	
			<i>Guy Wilkes</i>	
			<i>Manon</i>	
			<i>Prodigal</i>	
			<i>Annie Wilton</i>	
		<i>Gavatte</i>	<i>Anna Gallis</i>	
			<i>George Wilkes</i>	
			<i>Alma Mater</i>	
			<i>Nutwood</i>	
			<i>Maggie Medium</i>	
			<i>Guy Wilkes</i>	
			<i>Manon</i>	
			<i>Prodigal</i>	
			<i>Annie Wilton</i>	
		<i>Tekmar</i>	<i>Alcantara</i>	
			<i>Alma Mater</i>	
			<i>Nutwood</i>	
			<i>Maggie Medium</i>	
			<i>Guy Wilkes</i>	
			<i>Manon</i>	
			<i>Prodigal</i>	
			<i>Annie Wilton</i>	
		<i>Gavatte II</i>	<i>Milroi</i>	
			<i>Alma Mater</i>	
			<i>Nutwood</i>	
			<i>Maggie Medium</i>	
			<i>Guy Wilkes</i>	
			<i>Manon</i>	
			<i>Prodigal</i>	
			<i>Annie Wilton</i>	
		<i>Gavatte</i>	<i>Anna Gallis</i>	
			<i>George Wilkes</i>	
			<i>Alma Mater</i>	
			<i>Nutwood</i>	
			<i>Maggie Medium</i>	
			<i>Guy Wilkes</i>	
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		<i>Dardanell</i>	<i>Anna Gallis</i>	
			<i>George Wilkes</i>	</

CR KAY SUZIE is a name with which every modern harness racing fan is familiar. What may not be as well known is the extent of the inbreeding of this record smashing trotting filly born in 1992.

She was profiled in an article in the May 1995 issue of Hoofbeats not so much for her pedigree as for her exploits on the track as a two year old and her promise to be one of the top three year olds of the year.

Bred by Carl and Rod Allen of Florida, she was a smallish but powerful filly by Royal Troubadour. His dam was Mae Jeans Crown and a full sister to Speedy Somolli. Cr Kay Suzie's dam was by Speedy Somolli thus inbreeding the siblings 2x2 maternally. In addition to her inbreeding she carries four maternal traces to the inbred Hatteras through Dean Hanover

Rod Allen was opposed at first to the breeding because he, like most other horsemen, felt they were taking a chance with close bloodlines. Kimbeley Rinker quotes him in the article as follows:

"Maybe this is what makes things work sometimes in a bizarre sort of way. You've got to take some risks sometimes with breeding and go beyond the limit. I never agreed a whole lot with inbreeding ten years ago, but the more I've seen crosses like this work, the more validity I think it has."

It was Carl Allen who thought that the two individuals had more to gain from doubling up their good points since both were well-conformed and well-mannered individuals with no apparent faults. *"I'm sure that at a typical breeding farm this kind of thing would never have taken place."* he concluded.

Cr Kay Suzie's first foal, Cr Excalibur, was a top two year old that did not race much at three due to illness. Her future as a broodmare seems secure but her long term impact on the maternal identity may be even greater as a mare in the mould of Margaret Parrish.



Speedster carries the legacy of Dean Hanover and Hatteras from his dam.
Source: Times In Harness – 2002 Almanac

The pedigree of Cr Kay Suzie features several traces to the inbred mares **Oniska** and **Hatteras**.

The concern with the possible negative impact of inbreeding on both the individual produced, and the future of the breed generally, is not something to be ignored. We are already seeing the results of a diminishing number of sire lines in the rising number of prospective stallions with fertility problems.

There is, however, in my mind at least, a significant difference between male line, or paternal, inbreeding and maternal inbreeding.

There are no instances of horses, that I know of, that are inbred on their sire lines through the sire and the broodmare sire, so called paternal-paternal, that have in any way contributed to the extension of any sire line. By inbred I mean in the sense of the 2x3 and 3x2 matings of the mares we have looked at.

The same cannot be said for the effect of maternal inbreeding on the sports leading maternal families, as we shall see.

We are, however, seeing more and more close breeding on sire line and indeed there currently is one top performer, a pacer called Aba Daba Doo by Cams Card Shark, who is inbred paternally 2x3 to Cam Fella. Although he was not noted early in his career he has developed into an invitational pacer with career earnings of over \$480,000 as of this writing.

The instances of maternal inbreeding that I have documented are, for the most part, long ago in history and are far from the memories of most now involved in the breeding of Standardbreds. The fact that these inbred mares continue to make their presence felt in modern pedigrees is also little recognized.

The lack of interest in maternal inbreeding over the past half century has been largely the result of the emphasis on the contribution of the sire and a focus on sire lines. The taboos associated with incest in the minds of most breeders are also a deterrent since there has been little differentiation between paternal and maternal inbreeding, at least not up till now.

Inbreeding to superior females appears to be a valid concept that has considerable historical fact to back it up. Faversham and Rasmussen have lit the flame and are carrying the torch for this approach to breeding better and faster horses.

The importance of maternal families has long been recognized by pedigree researchers but has for the most part been lost in its significance to all but a few of today's breeders and owners. As recently as ten years ago it was not uncommon to see the maternal family listed on the catalogue page at major sales. This practise has, unfortunately, been largely done away with. It was also not uncommon to see articles on the leading maternal families in trade publications

and those by Sidney Lerner in the USTA publication Hoofbeats were particularly noteworthy, although no longer published.

We have noted several instances of maternal inbreeding in Standardbred history that would appear to have played and continue to play an important role in the production of the top performers of today. The extent to which this is recognized is uncertain since it is also my observation that most breedings are not in the least based upon line breeding, inbreeding, maternal families or any other theoretical aspect of pedigree.

Faversham and Rasmussen hit this nail on the head directly with these observations.

“The predominant force in breeding is rarely concerned with breeding theories. The sales consignor is primarily occupied with the bottom line – what will be responsible for the foal realizing top dollar. This requires a “name” sire or stallion and a black type family with known relatives without regard to the structural nuances in the pedigree. The first two generations generate the horse’s profitability.”

“In other words, in the majority of world class sales, breeding what is considered “the best to the best” will consistently bring the highest prices. This practice, despite some notoriously abysmal results, produces enough superior racehorses, as one, percentage wise,

has a right to expect. Therefore commercial breeders may find little reason to change their marketing strategies or tactics. Caveat Emptor.”

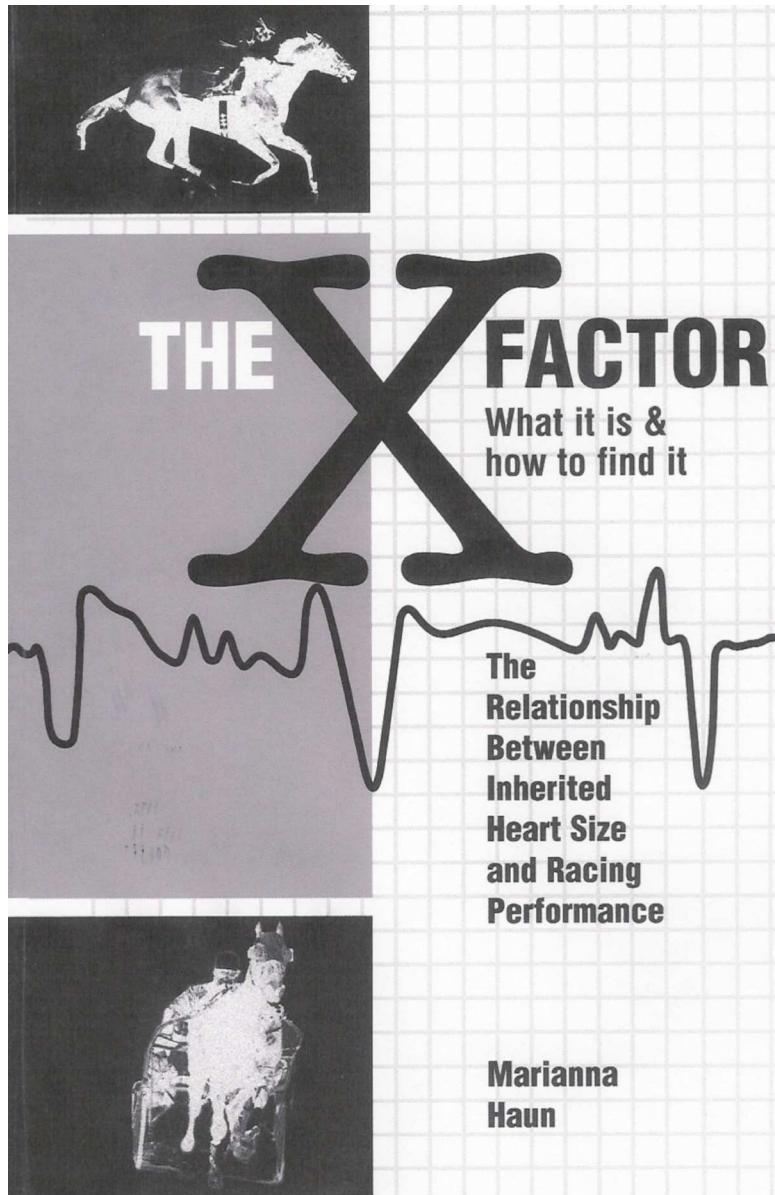
While these comments are aimed at the practices of the Thoroughbred industry they are very pertinent to the conduct of Standardbred breeding as well.

It is not my intention to take sides in this issue of theory versus the bottom line, nor on the question of inbreeding, maternal, paternal or otherwise. These issues are best left to the individual to make his or her own mind up. I can only hope that the information found in this book will assist in that process.

For my part I shall present my own interpretation of the current theories that deal with the aspect of the pedigree that interests me most – the maternal identity.

In doing so I am reminded of a comment made by a forgotten source to the effect that the pedigree, all else considered, makes up only 18% of what makes a champion racehorse.

The problem I see in trivializing the importance of pedigree in this way, relative to other factors, is that the 18% in question is the first 18%, and if the breeder ignores this, then the other 82% is a waste of everyone's time and money, regardless of the quality of the raising and training of the offspring.



The book, *The X Factor*, published in 1997 and written by Marianna Haun, documents the discovery of this exciting new way of looking at what makes champion horses. Haun introduces her research as follows:

"On June 9, 1973, at Belmont Park, the Big Red Machine, as turf writers had dubbed him, accomplished a feat that will be talked about for generations. As America held its breath watching the race, the three year old Secretariat galloped away from the field to a 31 length victory to capture the third leg of the Triple Crown."

"Sixteen years later that breath-taking race was explained. As the mighty stallion lay on an autopsy table, the research pathologists made a ground breaking discovery: They uncovered the largest heart ever found in a Thoroughbred racehorse, estimated at 22 pounds. The normal size is 8.5 pounds."

"Surely heart was a characteristic of all great champions. But was the term one which described a personality characteristic or was it also a measureable physical attribute?"

"It was a matter worth serious scientific investigation"

THE X-FACTOR THEORY

One theory recently published, called the X-Factor theory, builds upon the maternal identity as pivotal in the evolution of the racehorse. There are some who would say that they put their faith in modern genetics rather than “outdated” theories. While the great advances in the understanding of genetics have played a role in the development of many species of plants and animals I am not so sure that the horsemen of today understand and apply genetic theory any more than any of their predecessors. There is, however, a school of thought, based on extensive studies in the University of Kentucky Equine Program, that strongly suggests the existence of sex related genes that are mutations of a normal gene traceable to a single source and can determine performance factors such as heart size.

What is it?

The X-factor is the name given to a genetic inheritance that is passed on the X or female chromosome. Females have two X-chromosomes and males have one X and one Y chromosome. Sons inherit their X chromosome from their dam and their Y chromosome from their sire therefore only the dam can pass the X-factor to a son. Daughters inherit an X chromosome from each parent. If the sire is out of a mare that carries the X-factor it will likely be passed to the daughter by the sire. Similarly if the daughter

is out of a dam that carries the X-factor it will likely be passed on to the daughter by the dam. I say “*likely*” because the dam has two X chromosomes, only one of which is passed to combine with one from the sire in producing a daughter. The chances of the son or daughter inheriting the X-factor is assured if the dam carries it on both of her X chromosomes, and is what is known as a “*double copy*” mare.

The X-factor is believed to be a genetic trait that enhances performance by producing a large heart in the individual inheriting the gene. There may well be other sex related attributes, such as a more efficient cardio vascular system generally, or indeed deficiencies, that can be similarly passed, we don’t know for sure, but there is considerable research underway to map the genes of horses. Those of us who have studied pedigrees recognize, however, that certain females in history appear frequently in the pedigrees of top individuals today and the X-factor theory seems to correlate with their occurrence and position in the pedigree.

Marianna Haun has documented *The X-Factor* theory in the book of the same name. While the author’s examples are drawn primarily from the Thoroughbred breed, she does offer some examples of its application to the Standardbred and the principles would seem to

apply to the Standardbred breed as well. This is not surprising considering their shared maternal heritage.

Where does it come from?

While the source of the X-factor in Standardbreds has not been authoritatively established it is likely that the Thoroughbred sire named Diomed had a major role to play in its introduction to North America. To the extent that other maternal sources, such as the Canadian and the Norfolk Trotter, shared the same maternal legacy of the Brothers Childers, whether through Diomed or some other route, they also had a part to play.

In her book, *The X Factor*, Marianna Hahn speculates that the large heart phenomenon, verified through autopsy reports on outstanding horses such as Secretariat, originated with the Thoroughbred mare Pocahontas in the mid 19th Century. It is my observation that the source of the X-factor large heart gene may be traced right back to the beginnings of both the Thoroughbred and Standardbred breeds. The trail leads to the full brothers Bartlets Childers and Flying Childers, sons of The Darley Arabian. The former is the penultimate tail male in the Eclipse line, the most dominant sire line in world Thoroughbred breeding, while the latter is the foundation sire of the North American Standardbred through his descendant Hambletonian.

If there ever was a genetic factor worth passing on, which resulted from the mating that produced The Spanker Mare, then Diomed was certainly well equipped to do so. Diomed has nine traces to The Spanker Mare in his pedigree with three of them in so called X-factor position in his dam. Two of the maternal traces involve mares by Flying Childers or Bartlets Childers.



The legendary Pocahontas whose three sons Stockwell, King Tom and Rataplan are among the best broodmare sires in Thoroughbred history.
Source: *The Thoroughbred*

The Thoroughbred mare Pocahontas that Marianna Hahn suggests is the source is likely just another pretty face along the trail since her own maternal line goes back through Diomed's great daughters Young Giantess and Young Noisette and several other avenues to the Brothers Childers maternally.

Pocahontas

		<i>Buzzard</i>	<i>Woodpecker</i>	Herod
	<i>Selim</i>	<i>Misfortune</i>	<i>Miss Ramsden</i>	
		<i>Alexander Mare</i>	<i>Dux</i>	
	<i>Sultan</i>	<i>Highflyer Mare</i>	<i>Curiosity</i>	
		<i>Sir Peter Teazle</i>	<i>Eclipse</i>	
	<i>Bacchante</i>	<i>Arethusa</i>	<i>Grecian Princess</i>	
		<i>Mercury</i>	<i>Highflyer</i>	
<i>Glencoe</i>		<i>Herod Mare</i>	<i>Alfred Mare</i>	
	<i>Tramp</i>	<i>Dick Andrews</i>	<i>Highflyer</i>	
		<i>Gohanna Mare</i>	<i>Papillon</i>	
	<i>Trampoline</i>	<i>Fraxinella</i>	<i>Dungannon</i>	
		<i>Pot-8-os</i>	<i>Prophet Mare</i>	
	<i>Web</i>	<i>Maria</i>	<i>Eclipse</i>	
		<i>Trumpator</i>	<i>Tartar Mare</i>	
	<i>Orville</i>	<i>Penelope</i>	<i>Herod</i>	
		<i>Prunella</i>	<i>Folly</i>	
	<i>Muley</i>	<i>Beningbrough</i>	<i>Eclipse</i>	
		<i>King Fergus</i>	<i>Amaranda</i>	
	<i>Eleanor</i>	<i>Fenwicks Herod Mare</i>	<i>Highflyer</i>	
		<i>Highflyer</i>	<i>Cardinal Puff Mare</i>	
<i>Marpessa</i>		<i>Evelina</i>	<i>Mercury</i>	
		<i>Termagant</i>	Dundas Herod Mare	
	<i>Marmion</i>	<i>Whiskey</i>	Trentham	
		<i>Young Giantess</i>	Woodpecker Mare	
	<i>Clare</i>	<i>Whiskey</i>	<i>Eclipse</i>	
		<i>Young Noisette</i>	<i>Sportsmistress</i>	
	<i>Harpalice</i>	<i>Gohanna</i>	<i>Herod</i>	
		<i>Amazon</i>	<i>Lisette</i>	
			<i>Conductor</i>	
			<i>Brunette</i>	
			Highflyer	
			Promise	
			<i>Eclipse</i>	
			<i>Polly</i>	
			<i>Herod</i>	
			<i>Pyrrha</i>	
			<i>Herod</i>	
			<i>Rachel</i>	
			<i>Tantrum</i>	
			<i>Cantatrice</i>	
			<i>Eclipse</i>	
			<i>Virago</i>	
			Herod	
			<i>Teresa</i>	
			<i>Florizel</i>	
			Sister To Juno	
			<i>Matchem</i>	
			Molly Long Legs	
			<i>Eclipse</i>	
			<i>Virago</i>	
			<i>Herod</i>	
			<i>Teresa</i>	
			<i>Florizel</i>	
			Sister To Juno	
			<i>Squirrel</i>	
			Carina	
			<i>Eclipse</i>	
			<i>Tartar Mare</i>	
			Herod	
			<i>Maiden</i>	
			<i>Trentham</i>	
			<i>Coquette</i>	
			Mercury	
			Woodpecker Mare	

The dam of Pocahontas is a double copy to **Diomed** through his daughters **Young Noisette** and **Young Giantess**.
Pocahontas has thirteen additional traces to **The Spanker Mare** maternally in X-factor position.

Who has it now?

In North American Standardbreds the X-factor appears to trace back primarily through four individuals with Thoroughbred maternal lines that contain the presence of Diomed and these are Miss Russell, Midnight, Mambrino Patchen and American Star, all horses born in the mid 1800's. Individuals who show maternal traces back to one or more of these four individuals, particularly through inbred mares such as Oniska, Helen Hanover, Margaret Parrish, Hatteras, Dardanell and several others, appear to be among the best performers of our day.

Any individual horse whose parents carry the X-factor trace may inherit it. Not all individuals that inherit the gene turn into world champions given all the other things related to conformation that they can and do inherit also. It is important for a filly to inherit the X-factor from both parents both for racing and breeding purposes. That is not the case for a colt. A male offspring, however, should have a dam that is a double copy to the X-factor to maximize his chances of inheriting the gene. That is why you see so many top male individuals today with no apparent X-factor connection from sire to dam, yet if you look at the dam herself, you will almost always find a buildup of the X-factor presence maternally, including a double up, or double copy, of one or more of the key inbred mares mentioned above.

In many cases these important mares do not show directly on a typical five or six-generation pedigree chart, but knowing the individuals through which a particular trace is available is an important part of recognizing the impact on modern pedigrees of these "*ancient*" mares. In pacing pedigrees Oniska is clearly part of the legacy of both Good Time and Tar Heel mares and when you find a mare with a pedigree that shows a Good Time daughter in X-factor position in the sire and one by Tar Heel in the dam then you know you are dealing with a mare that is a double copy to Oniska. It is a similar situation in trotters with Stars Pride and Noble Victory, who both carry Oniska through San Francisco maternally. Adios and his full sister Adieu, sources of Adioo, are often seen across from other traces to Adioo through Dillon Axworthy as in the case of Artiscape's dam Delinquent Account who is a double copy to Adioo in this fashion, while her dam Al Dente is also a double copy to the same trace since her sire and dam are both from the maternal family of Miss Bertha Dillon by Dillon Axworthy.

What is X-factor Position?

As I have noted earlier, the X-factor is passed from mother to daughter, mother to son and from father to daughter. It cannot be passed from father to son. In a typical six generation pedigree chart, therefore, the

path of the X-factor trace is restricted to only 21 of the 64 individuals in the sixth generation column. The dam has 13 possible traces and the sire has 8. If we look at the pedigree of Margaret Parrish, the following individuals in the sixth generation are capable of passing the X-factor if they have it.

Starting from the bottom we have Gardner Mare, Longs American Boy, and Maggie Gaines. The next one Almont does not count since he is the sire of a son, Star Almont, in this pedigree. If Almont was in the pedigree in another position as sire of a daughter he could count. Next we have Fanny by Ben Franklin and then Mambrino Chief. Dolly Spanker and Hambletonian are not in X-factor position since they are the parents of George Wilkes who appears as sire of a son Onward. Continuing up, the remaining X-factor positions in the pedigree of the dam are occupied by Kate by Black Hawk, Flying Morgan, Charles Kent mare, Old Sorrel, American Star, Nelly Moore, Sally Russell, and Pilot Jr.

The individuals in the dam that carry X-factor traces to Diomed or further back to the brothers Childers, that we are aware of, and are in an X-factor position from which they can pass the X-factor on, are Flying Morgan, Charles Kent Mare, Old Sorrel, American Star, Sally Russell and Pilot Jr, the last two being the parents of Miss Russell. Margaret Leyburn's sire Wilton, is therefore from a double copy dam and must

inherit the gene and pass it on. Arion also inherits the X-factor since his dam Manette is also a double copy mare. Lady Leyburn, dam of Margaret Parrish will inherit the X-factor for certain from Arion and has a 50% chance of inheriting the same genetic legacy from her dam. In view of the success of Margaret Parrish both on the track and in the breeding shed it would appear that Lady Leyburn, indeed, had a double inheritance of whatever positive characteristic was being passed along the X-factor trail.

Vice Commodore, the sire of Margaret Parrish also carries both Miss Russell and American Star since his dam, Narion, is also by Arion. The individuals in the pedigree of Vice Commodore that are in X-factor position in the sixth generation are all in his dam since his sire Bingen does not count. They are Sophronia, Edwin Forrest, Clara by American Star, Isaiah Wilcox mare, Andruss Hambletonian, Lady Sanford, Tom Moore and Miss Russell. Both Clara and Lady Sanford are by American Star making Narion a double copy to that source in addition to having Miss Russell and a trace to Bartletts Childers through Sophronia.

The end result for Margaret Parrish was a concentration of X-factor traces that was amplified by the 3x2 inbreeding to Arion and Miss Russell, a buildup that was certain to produce something special if the X-factor theory is seen to be credible.

		<i>Electioneer</i>	<i>Hambletonian</i>	Abdallah
	<i>May King</i>		<i>Green Mountain Maid</i>	Charles Kent Mare
		<i>May Queen</i>	<i>Norman</i>	Harry Clay
	<i>Bingen</i>		<i>Jennie</i>	Shanghai Mary
t,2:06			<i>George Wilkes</i>	Morse Horse
	<i>Young Miss</i>	<i>Young Jim</i>	<i>Lear Mare</i>	Slocum Mare
			<i>Red Wilkes</i>	Crocketts Arabian
		<i>Miss Mambrino</i>	<i>Miss Clark</i>	Unknown
			<i>Hambletonian</i>	Hambletonian
	<i>Vice Commodore</i>	<i>Electioneer</i>	<i>Green Mountain Maid</i>	Dolly Spanker
			<i>Nutwood</i>	Lears Sir William
	<i>Arion</i>	<i>Manette</i>	<i>Emblem</i>	Unknown
	<i>Narion</i>		<i>Hambletonian</i>	George Wilkes
		<i>Happy Medium</i>	<i>Princess</i>	Queen Dido
	<i>Nancy Hanks</i>	<i>Nancy Lee</i>	<i>Dictator</i>	Alic
			<i>Sophy</i>	Kate
		<i>Hambletonian</i>		Abdallah
			<i>Abdallah</i>	Charles Kent Mare
t,4,2:06 1/4	<i>Electioneer</i>	<i>Green Mountain Maid</i>	<i>Green Mountain Maid</i>	Harry Clay
			<i>Nutwood</i>	Shanghai Mary
	<i>Arion</i>	<i>Manette</i>	<i>Emblem</i>	Belmont
			<i>Hambletonian</i>	Miss Russell
	<i>Lady Leyburn</i>		<i>Charles Kent Mare</i>	Tom Moore
t,3,2:23 1/2			<i>Harry Clay</i>	Lady Sanford
		<i>Nutwood</i>	<i>Shanghai Mary</i>	Abdallah
			<i>Belmont</i>	Charles Kent Mare
		<i>Emblem</i>	<i>Miss Russell</i>	Andruss Hambletonian
			<i>Tom Moore</i>	Isaiah Wilcox Mare
		<i>George Wilkes</i>	<i>Lady Sanford</i>	Hambletonian
			<i>Hambletonian</i>	Clara
		<i>Alley</i>	<i>Abdallah</i>	Edwin Forrest
			<i>Charles Kent Mare</i>	Sophronia
	<i>Wilton</i>	<i>Onward</i>	<i>Harry Clay</i>	Mambrino
	<i>Margaret Leyburn</i>		<i>Shanghai Mary</i>	Amazonia
		<i>Mamie</i>	<i>Belmont</i>	Imp Bellfounder
	<i>Rose Leyburn</i>		<i>Miss Russell</i>	One Eye
			<i>Tom Moore</i>	Cassius M Clay Jr
			<i>Lady Sanford</i>	Bellfounder Mare
			<i>Hambletonian</i>	Irons Cadmus
			<i>Abdallah</i>	Jenny By American Star
			<i>Charles Kent Mare</i>	Abdallah
			<i>Harry Clay</i>	Belle
			<i>Shanghai Mary</i>	Pilot Jr
			<i>Belmont</i>	Sally Russell
			<i>Miss Russell</i>	Jupiter Abdallah
			<i>Tom Moore</i>	Nelly Moore
			<i>Lady Sanford</i>	American Star
			<i>Hambletonian</i>	Old Sorrel
			<i>Dolly Spanker</i>	Abdallah
			<i>Hambletonian</i>	Charles Kent Mare
			<i>Lady Griswold</i>	Henry Clay
			<i>George Wilkes</i>	Telegraph
			<i>George Wilkes</i>	Abdallah
			<i>Dolly</i>	Charles Kent Mare
			<i>Star Almont</i>	Flying Morgan
			<i>Kit</i>	Kate By Black Hawk
				Hambletonian
				Dolly Spanker
				Mambrino Chief
				Fanny
				Almont
				Maggie Gaines
				Longs American Boy
				Gardner Mare

Positions in the pedigree through which the X-factor may trace.

As you can readily understand the further we get away from the original four sources of the X-factor the greater the number of traces in a pedigree. This may well correlate with the improvement in speed and performance in the breed. It also points out, however, the need to decide which of these traces are significant and which are incidental in the context of time.

Is it probably not important to have all four sources represented in any one pedigree but it appears to be important to have individuals in X-factor position that have benefited from several close up infusions of X-factor blood possibly through inbreeding as in the case of Margaret Parrish. Such infusions can also be achieved through a steady buildup of the X-factor influence through successive daughters by sires from double copy mares. It is also important, as we shall see later, to double up on key individuals maternally such as sons to daughters, sister-to-sister etc. This latter strategy was an important part of the success of legendary Thoroughbred breeder Tesio and while it predated the arrival of the X-factor theory it gives an element of credibility to Marianna Haun's work because of the great success that Tesio had.

Why Is It Important?

The use of X-factor analysis is another tool for evaluating pedigrees. It appears to have considerable significance especially when you break down the

traces in certain top individuals. It is demonstrable that the top sires of today show multiple traces to the X-factor sources and their pedigrees feature one or more of the key mares that I have mentioned. In Cam Fella's case, probably one of the greatest sires ever of both sons and daughters, he has several individuals in X-factor position in his sixth generation including Adioo through Helen Hanover. The same is the case for Valley Victory who has built his dynasty in large part courtesy of his maternal presence of Margaret Parrish.

In his book *Patterns of Greatness*, Thoroughbred researcher Alan Porter noted the need to delve deeply into a pedigree to discover the underlying genetic strengths that are not apparent in the first six generations.

"This can reveal that one particular background cross has been built up to a point where it dominates a pedigree and reaches a critical mass reinforcing vital genes to the point where they explode in the form of a dynamic performer".

He further speculates that close inbreeding – especially to brothers, sisters and other genetic relatives – can bring about positive genetic mutations. Haun and others believe that the X-factor originated in a single female through a genetic mutation caused by inbreeding.

Could that female be the Ancestral Mom in the form of The Spanker Mare? Is she indeed the source of the X-Factor? It is entirely likely when you look at the influence of her grandsons Flying Childers and Bartlets Childers on the female side of the breeding equation in both the Thoroughbred and the Standardbred.

Faversham and Rasmussen, in their book *Inbreeding To Superior Females* also offer some thoughts on the X-factor theory and introduce another genetic theory based on something called Mitochondrial DNA.

“The DNA of the Thoroughbred is contained within 64 chromosomes found inside the nucleus of the cell. The genetic makeup or genome of every Thoroughbred is a composite of the contributions of all of its ancestors. The fraction of genes in an individual’s genome attributed to particular ancestors is quite small. Any single gene in a fifth generation ancestor has only a 3% chance of reaching that individual...In other words the probability of duplicating specific genes from a single ancestor several generations back is mathematically remote and does not explain the statistical advantage inbred horses have demonstrated.”

“By the same token, the principles of sex linkage, specifically of the X chromosome cannot explain all of the effects of inbreeding.... Another type of genetic

material with its own unique form of transmission is mitochondrial DNA that also is only inherited maternally. A foal’s mitochondria (the cell’s energy producers) are direct copies of the dam’s mitochondria. The transmission is, therefore, through the tail female line. Mitochondrial DNA or mtDNA is responsible for the encoding of numerous proteins involved in aerobic energy production. Unlike its nuclear counterpart the mitochondrial genome contains very little redundant DNA that fails to code for gene products. It follows that mtDNA is particularly vulnerable to mutations. Any spontaneously occurring genetic alterations will most likely result in altered protein products, and with it, changes in the efficiency of energy production and utilization.”

Yet another area of interest has recently been written up by researchers who have discovered a sex based linkage in the ability of the blood of humans to absorb and, more importantly, to maintain high levels of oxygen. Research of the oxygen saturation of Hemoglobin in residents of high altitude communities indicates the ability to adapt to the stress imposed by oxygen deprivation or deficiency is a function of genetics. The gene responsible for this ability has been identified on the X-chromosome in humans.

Thus it would seem possible that the effect of the X-factor in horses may not necessarily be a function of

heart size but rather a function of the oxygen carrying ability of the blood itself if it can be proven that the performance of certain horses is the result of the same kind of genetic adaptation.

In earlier times horse breeders would describe their performance horses as being “*of high blood*”, usually in reference to the degree of Thoroughbred influence in the pedigree, but perhaps unwittingly giving a clue to what really makes for exceptional performers a higher ability to absorb and retain the high levels of oxygen required for performance under stress.

It is common practice in modern medicine to make use of an oximeter, a device that measures blood oxygen saturation, during and after surgical procedures. Such devices attached to a finger tip or toe, or through the placement of sensors on the head, can monitor and quantify the changes in blood saturation in the patient as the stress levels within the body fluctuate, providing a critical alarm system to indicate the need for emergency intervention.

Blood hemoglobin levels in horses are usually determined though actual blood analysis but the oximeter provides an instantaneous and non invasive way of obtaining comparable data. It would be interesting indeed if such measurements can be related to the X-factor and the pedigree as a predictor of future performance or an explanation of the past.

In recent times we have seen the advent of “blood doping”, the artificial stimulation of the blood to transport higher levels of oxygen for short periods of time. Such practices are under scrutiny by sports bodies worldwide and have been the object of investigations in such sports as cycling, track and swimming, all of which depend upon speed and endurance to produce winning efforts. Inevitably the sport of horse racing will face the same kind of scrutiny as unscrupulous trainers turn to synthetic products capable of producing the same effects on the blood of performance horses.

It is not for me, as a layperson, to debate the difference between one method of transmitting genetic inheritance versus another. There is, however, some genetic force at work maternally, in addition to that provided by the sire line, that is passing along in some fashion to certain individuals the ability to outperform their contemporaries. My own impression is that this special genetic legacy is indeed sex linked and might have more to do with the recessive nature of the gene than with the percentage chance of any single gene being passed on through the generations. It also may result from a combination of the two theories of X-factor and mitochondrial DNA since I have no reason to believe that their genetic impacts, both supposedly based on mutational changes, are mutually exclusive. In fact, as we shall see in the next chapter, there appears to be two sex linked

transmission processes at work that in effect support and reinforce one another at critical points in the pedigree. As Faversham and Rasmussen conclude:

"It provides a more plausible explanation of how inbreeding can create change at the cellular level. The greater the number of strains and the closer the generational level at which the ancestor appears would thus increase the power or level of inbreeding to an ancestor."

Perhaps some day soon, when researchers finally crack the genetic code for the genome of the horse, we shall better understand both the process and the effect. Until then I am prepared to accept that such an effect exists for whatever reason without getting bogged down in scientific debate.

In all this discussion of the seeming advantages of a sex linked genetic legacy that can dramatically improve performance, it is worthwhile to put things into context and Marianna Haun does this early in her book *The X Factor*. Her comments were made before the recent developments in blood research noted above that indicate that there may be some other explanation than heart size that bears further examination.

"That there had been great champions with normal sized hearts was not open to question. In every endeavor, equine and human, however, there have

been individuals who have had such superb characteristics in other areas as to make up for a lack in one area."

"Further the opposite side of the coin is true. The presence of a large heart in a racehorse has never been a guarantee of a winner.... Heart size will not help a racehorse to be a champion if he is unsound, has bad conformation, is not interested in running, is poorly trained, or any number of factors that can impact on the success or failure of a racehorse.

"There are those who have placed all of their credence in the horse's conformation, and those for whom breeding is the only factor worth considering. The list of attributes which have been thought to be critical has changed with fashion and with the visible attributes of the latest champion."

"There has never been, perhaps never will be, a definitive answer to the question of what makes a champion. There are too many variables and too many ways to combine them. It is possible to say, though, that certain attributes seem to show up with regularity in the great champions."

This then brings us to our next task, to show that indeed the champions of the sport have a common thread that links their performance to their pedigree and particularly their maternal identity.

THE MATERNAL TRIGGER EFFECT

For generations breeders have focused their attention on maternal families with names like Medio, Minnehaha, Jessie Pepper, Miss Duvall, Miss Mambrino, Jane Hunt, etc. and have attributed the success of many of the top performers of the day to the fact that they traced maternally to such individuals.

Maternal families are identified by the name of the individual to which the tail female line traces in a pedigree, the so-called taproot mare. Pedigree experts go back as far as they can and when they hit a dead end the last female with a recognized sire gets the nod as the origin of the maternal family.

According to Sidney Lerner, one of the foremost experts on Standardbred maternal families, there are 40 taproot families of consequence that produce the vast majority of top performers from the 1,334 families identified. In a study of the top two year olds of 1985 presented by Lerner, in the August 1986 edition of Hoofbeats, the percentage of the best two-year-old pacers from the top 40 families was 83%, confirming a similar study of the previous year where the percentage was 79%. Curiously the name of Miss Russell is nowhere to be seen in the top 40 list of families and indeed nowhere to be seen anywhere on

the list of maternal familys of the 211 two year old pacers that took a 2:00 record or better in 1985.

Group One	Group Two (Cont.)	Group Five
Minnehaha	Abbess	Maggie
Lady W	Nelly by Denmark	Nelly Walton
Jessie Pepper	Nina Neave	Woodbine
Mambrino Beauty	Dairy Maid	Belle H
Midnight	Lady Hurd	Bess
Lizzie Witherspoon	Maggie Gaines	Roberts Mare
Medio	Mary	Dolly Forward
Copeland Mare	May Taylor	Duxie
Miss Duvall	Crazy Jane	Flora
Jane Hunt	Lady Shipley	Kimball Mare
Mamie	Mollie Dillard	Lady Jenkins
Esther	Group Three	Lady Wilkes
Sally Sovereign	Woburn Maid	Lizzie
Group Two	Annie	Maude
Ab	Dora by Dixie	Minnie
Dolly B	Mattie Hunters Dam	Nannie Wiley
Maud by Dr Herr	Miss Sears	Nellie Gray
Aileen	Sally Ann Shuter	Nelly
Belle G	Sue W	Panthea
Molly J	Group Four	Pearl
Almont Belle	Flora Woodburn	Rail Road
Lida	Chicago Maid	Rapidan
Macketta		Topsy Hal
Trusty		

Source: Pedigrees and Performance by Jay Lerner, Hoofbeats, Aug.1986.

How can this be? What happened to Miss Russell and her contribution to the maternal identity?

Tracing the early development of the top maternal families shows, however, that Miss Russell, with no extensive family of her own, is still the likely trigger to the success of other maternal families.

It would appear that many of these foundation mares did little themselves other than produce one daughter to carry on the family line and many of these maternal families went several generations before branching out into serious production of top performers.

The one thing that all of the top maternal families appear to have in common is that this branching out did not occur until triggered by an intersection with particular bloodlines, notably the bloodlines of Miss Russell and her son Nutwood and his daughters and their sons. This also applies to the impact of other trails to Diomed or the Brothers Childers through Midnight, American Star and Mambrino Patchen. the other sources noted in an earlier chapter.

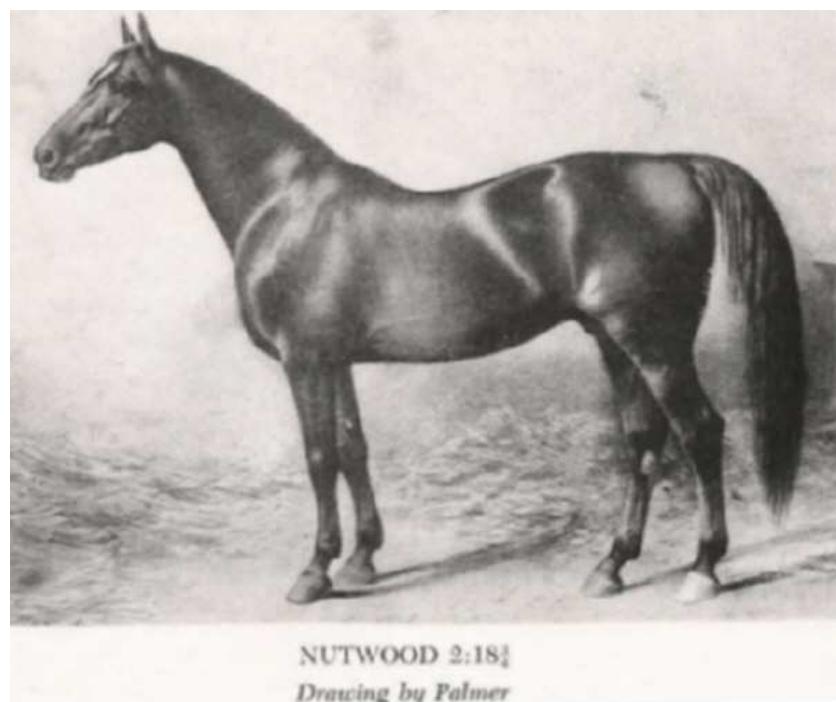
In documenting this phenomenon which I will call the “*Maternal Trigger Effect*”, I will use the X-factor approach with respect to how these bloodlines are transmitted, and we shall look at the 13 families that constitute Lerner’s Group One as examples. Of this select group of foundation mares all but two had their roots in Kentucky.

Right: Nutwood was the most prolific son of Miss Russell.

Source: The American Trotter

In his book *The Kentucky Harness Horse*, author Ken Carr comments:

“It was John E Madden, master of Hamburg Place and known as the wizard of the turf, who said that the mare is the larger part of the foal and the stallion is the larger part of the farm. Madden is the only breeder ever to produce the winners of both the Kentucky Derby for Thoroughbreds and the Kentucky Futurity for trotters. The modern Standardbred is indebted to Kentucky for the serious planning that produced the outstanding horses of the Bluegrass breeders”



TOP MATERNAL FAMILIES

MINNEHAHA is reputed to be the most prolific family in the production of 2.00 performers, and is an excellent example of the maternal “trigger” phenomenon.

She was born in Wisconsin and sired by Steven’s Bald Chief, a son of Bay Chief, one of the sires of Woodburn Farm in Kentucky. Both her sire and her dam had Thoroughbred bloodlines maternally.

She has at least three distant traces to the Spanker Mare through Thoroughbred lines in her pedigree. Her sire Steven’s Bald Chief has a third dam by Old Potomac, a son of Diomed.

Minnehaha was bought by L J Rose of California and was shipped west to become the consort of his stallion The Moor. In all she had sixteen foals and eight were daughters of which only two produced on. Beautiful Bells by The Moor was her first foal and a champion racehorse and is best known as the dam of Chimes by Electioneer but does not have a maternal legacy.

It is Eva by Sultan, son of The Moor, however, who is the primary channel for her maternal family development. Sultan’s dam is by Delmonico who is from a daughter of Hambletonian whose dam in turn carries a double trace to The Spanker Mare.

Eva had three daughters known as the Thompson Sisters, Tillie Thompson, Madam Thompson and the less well known Lydia Thompson all by Guy Wilkes. The dam of Guy Wilkes is Lady Bunker by Mambrino Patchen and his second dam is Lady Dunn by American Star. The sisters were off to a good start.

The three sisters were bought by Patchen Wilkes Farm and taken to Kentucky, back to the state where Steven’s Bald Chief was born.

Tillie Thompson was bred to Peter The Great who carries a maternal trace to Pilot Jr through one of that sire’s daughters called Juliet, and the result was The Miss Stokes. She in turn had four daughters all by Justice Brooke and one by Belwin that are her maternal legacy. Both Justice Brooke and Belwin also have American Star maternally. Another daughter by Guy McKinney failed to establish a strong maternal line.

Madam Thompson was also bred to Peter The Great to produce three daughters of note in Miss Pierette, Madam Peters and Eva Tanguay. These three in turn were bred almost exclusively to Dillon Axworthy, a source of Adioo and to San Francisco, a source of Oniska, both of whom brought Miss Russell from their maternal lines into the mix and triggered another explosion of fertility.



Source: The American Trotter

Three of Minnehaha's daughters, including Beautiful Bells, were by The Moor whose pedigree is full of mystery and intrigue. The line of The Moor went back to Kentucky. He was by Clay Pilot whose second dam was Kate by Pilot Jr. Clay Pilot's dam is known as Catch Filly since Kate apparently got in foal inadvertently to someone's precocious colt. The dam of the Moor has an even stranger story. Her name was Belle Of Wabash and she, rumour says, is the result of the same kind of incestuous breeding that produced The Spanker Mare, that of a mother and her son. The Moor, however, is her only legacy.

Minnehaha by Stevens Bald Chief

Beautiful Bells by The Moor

Eva by Sultan

Tillie Thompson by Guy Wilkes

The Miss Stokes by Peter The Great

Tilly Brooke by Justice Brooke

The Miss Hanover by Guy McKinney

Rose Brooke by Justice Brooke

Minnetonka by Belwin

Alice Brooke by Justice Brooke

Madam Thompson by Guy Wilkes

Miss Pierette by Peter The Great

Princess Hanover by Guy McKinney

Madam Dillon by Dillon Axworthy

Helen Dillon by Dillon Axworthy

Eleanor Hanover by Dillon Axworthy

Dream Hanover by Dillon Axworthy

Clara Dillon by Dillon Axworthy

Madam Peters by Peter The Great

Rachel Hanover by Dillon Axworthy

Peterena KT by Kentucky Todd

Eva Tanguay by Peter The Great

Harvest Eve by The Harvester

Evas Girl by Dillon Axworthy

Eva Frisco by San Francisco

Lydia Thompson by Guy Wilkes

These are the maternal lines through Eva that are responsible for the growth and reputation of the Minnehaha family, including the great inbred broodmare influence Helen Hanover by Dillon Volo, whose dam was by Dillon Axworthy. Helen Hanover was from Helen Dillon by Dillon Axworthy, great granddaughter of Eva.

	<i>Mambrino Paymaster</i>	<i>Mambrino</i>	Messenger By Sour Crout
	<i>Mambrino Chief</i>	<i>Paymaster Mare</i>	Paymaster Feather Mare
		<i>Messenger Duroc</i>	Hambletonian Satinet
		<i>Unknown</i>	
	<i>Eldridge Mare</i>	<i>Black Hawk</i>	Sherman Morgan
		<i>Unknown</i>	
	<i>Keokuk</i>		
	<i>Keokuk Mare</i>		
		<i>Unknown</i>	
	<i>Stevens Bald Chief</i>		
		<i>Messenger</i>	Mambrino
		<i>By Sour Crout</i>	Turf Mare
	<i>Hunts Commodore</i>	<i>True American</i>	Sour Crout
		<i>Tom Bogus Mare</i>	Whirligig Mare
	<i>Dolly Spanker</i>	<i>Diomed</i>	Volunteer
		<i>Fairy</i>	Unknown
			Tom Bogus
	<i>Old Potomac</i>		Unknown
	<i>Old Potomac Mare</i>		Florizel
			Sister To Juno
			Pegasus
			Nancy McCulloch
Minnehaha			
		<i>Andrew Jackson</i>	Young Bashaw
	<i>Henry Clay</i>	<i>Lady Surrey</i>	Unknown
	<i>Cassius M Clay</i>	<i>Unknown</i>	Canadian
		<i>Unknown</i>	
	<i>Jersey Kate</i>	<i>Unknown</i>	
		<i>Unknown</i>	
	<i>Cassius M Clay Jr</i>	<i>Mambrino</i>	Messenger
		<i>Amazonia</i>	By Sour Crout
	<i>Abdallah Mare</i>	<i>Lawrences Eclipse Mare</i>	By Messenger
		<i>Charles Hadley Mare</i>	Unknown
		<i>Messenger</i>	American Eclipse
	<i>Netty Clay</i>	<i>Doll By Algerine</i>	Doll By Algerine
		<i>Charles Hadley Mare</i>	Messenger
	<i>Abdallah</i>	<i>Messenger</i>	Unknown
		<i>By Sour Crout</i>	Turf Mare
		<i>By Messenger</i>	Sour Crout
	<i>Col Morgan Mare</i>	<i>Unknown</i>	Whirligig Mare
		<i>Engineer</i>	Messenger
	<i>Engineer 2nd</i>	<i>Engineer</i>	Unknown
	<i>Engineer 2nd Mare</i>	<i>By Plato</i>	Plato
		<i>Harris Hambletonian Mare</i>	By Rainbow
		<i>Unknown</i>	Bishops Hambletonian
			Munson Mare

Minnehaha has several distant traces to **The Spanker Mare** but only one sire line through **Diomed** in the second dam of her sire..

LADY W is typical of the maternal families that get off to a slow start. She had one daughter by Kimo, a sire whose only claim to fame is that he was a descendent of the Canadian pacer Tom Hal. She in turn had one daughter by Anderson Wilkes and that daughter in turn produced a daughter called Kay's Ess by Ess H Kay. Anderson Wilkes contributes nothing maternally but Ess H Kay has a second dam by Alcantara whose dam is by Mambrino Patchen, and he is also from the family of Jessie Pepper, which we will look at later. Kay's Ess had three daughters, one by Azoff and another by Argot Hal that produced no descendants of consequence. Her third daughter, however, is the start of her maternal legacy.

La Paloma was by Walter Direct whose dam is Ella Brown by a little known sire called Prince Pulaski Jr. It is this sire's second dam that is likely the key to the fertility of La Paloma. Her name was Dardanell and she was a result off the mating of Gamar to his full sister Gavatte I I. These two siblings were by Tekmar whose dam was Irma by Nutwood, and their dam was Gavatte by Milroi, another sire from a daughter of Nutwood. Dardanell is probably the most incestuously bred horse in the Trotting Register and the bloodlines responsible all lead back to Miss Russell. Adding even more spice to the mix is the dam of Gavatte, Anna Gallis by Prodigal, whose second dam is by Mambrino Patchen.

La Paloma had seven daughters of which five were excellent producers. Her Ladyship produced Goose Bay who made a major contribution to the maternal identity as the sire of Lady Lunken, dam of the great matron Lady Kackne.

Lady W by Unknown Sire

Lady W's Last by Kimo

May Flower by Anderson Wilkes

Kays Ess by Ess H Kay

La Paloma by Walter Direct

Her Ladyship by Abbedale

Claire Hal by Hal Dale

Lady Hal by Hal Dale

Still Waters by Single G

Palomita by Braden Diect

Ladyship Hal by Hal Dale

Claire Hanover by Hal Dale

Perhaps the biggest credit to her maternal family is former world champion and multiple stakes winner Miss Easy p.3, 1.51.1, whose fifth dam is also Her Ladyship. Miss Easy was a perfect example of the power of doubling up Miss Russell maternally. She, herself, carried a double copy to both Adioo and Oniska, her dam was double Adioo and Oniska also, her second dam was double Adioo and her third dam was by Volomite bringing in Oniska again. This was a good example of a strong buildup of key X-factor sources that resulted in an exceptional performer.

		<i>Dale Frost</i>	<i>Hal Dale</i>	Abbedale
		<i>Meadow Skipper</i>	<i>Galloway</i>	Margaret Hal
		<i>Countess Vivian</i>	<i>Kings Counsel</i>	Raider
		<i>French Chef</i>	<i>Filly Direct</i>	Bethel
	p,2,1:54m		<i>Stars Pride</i>	Volomite
		<i>Nevele Pride</i>	<i>Thankful</i>	Margaret Spangler
		<i>La Pomme Souffle</i>	<i>Florican</i>	Billy Direct
		<i>Pompanette</i>	<i>Spinster Hanover</i>	Calumet Edna
			<i>Volomite</i>	Worthy Boy
			<i>Ann Vonian</i>	Stardrift
		<i>Bye Bye Byrd</i>	<i>Billy Direct</i>	Hoot Mon
			<i>Adieu</i>	Magnolia Hanover
			<i>Hal Dale</i>	Spud Hanover
		<i>Hush A Bye</i>	<i>Adioo Volo</i>	Florimel
	p,3,2:012m		<i>Adios</i>	Bill Gallon
			<i>Adioo Volo</i>	The Old Maid
		<i>Helanca Hanover</i>	<i>Tar Heel</i>	Peter Volo
			<i>Emily Hanover</i>	Cita Frisco
			<i>Hal Dale</i>	Grattan At Law
		<i>Adios</i>	<i>Adioo Volo</i>	Margaret Vonian
			<i>Tar Heel</i>	Napoleon Direct
		<i>Adios</i>	<i>Emily Hanover</i>	Gay Forbes
			<i>Hal Dale</i>	Hal Dale
		<i>Adios</i>	<i>Adioo Volo</i>	Adioo Volo
			<i>Adioo Volo</i>	Abbedale
		<i>Bret Hanover</i>	<i>Adioo Volo</i>	Margaret Hal
	p,4,T1:533m		<i>Tar Heel</i>	Adioo Guy
			<i>Adioo Volo</i>	Sigrid Volo
		<i>Brenna Hanover</i>	<i>Beryl Hanover</i>	Billy Direct
			<i>Adioo Volo</i>	Leta Long
			<i>Nibble Hanover</i>	Sandy Flash
			<i>Laura Hanover</i>	Hanovers Alma
			<i>Nibble Hanover</i>	The Abbe
			<i>Lydia Knight</i>	Daisydale D
			<i>Dillon Axworthy</i>	Argot Hal
			<i>Great Medium</i>	Margaret Polk
		<i>Duane Hanover</i>	<i>Hal Dale</i>	Guy Dillon
			<i>Adioo Volo</i>	Adioo
			<i>Adioo Volo</i>	Peter Volo
		<i>Phyllis C</i>	<i>Adios</i>	Polly Parrot
	p,3,2:064f			Napoleon Direct
			<i>Phantom Lady</i>	Gay Forbes
		<i>Little Fanny</i>		Volomite
				Rosette
				Calumet Chuck
				Justissima
				The Laurel Hall
				Miss Bertha Worthy
				Calumet Chuck
				Justissima
				Peter The Brewer
				Guy Rosa
				Axworthy
				Adioo Dillon
				Peter The Great
				Dorsh Medium
				Abbedale
				Margaret Hal
				Adioo Guy
				Sigrid Volo
				Peter Volo
				Cita Frisco
				Abbedale
				La Paloma

The pedigree of Miss Easy is dominated by the presence of **Adioo** with six separate traces to this source of Miss Russell. Her dam and second dam are double copies to **Adioo** as are the dam and second dam of her sire French Chef.

JESSIE PEPPER, like Mambrino Patchen, was by Mambrino Chief from a mare of Thoroughbred blood. In this case it was Lena Pepper whose sire was Sir Archy, son of Diomed. Sir Archy's dam has at least three maternal traces to the Spanker mare so Jessie Pepper gets her start directly from her maternal line. Mambrino Patchen's dam was by a grandson of Diomed called Gano and he was also from a Sir Archy mare.

Jessie Pepper had a large number of foals including two daughters that are still noticeable in the pedigrees of today's top performers. One was Iona by Alcyone, a sire whose dam was a Mambrino Patchen. She in turn had one daughter called Miss Nutonia by Nutwood which took care of the development of that branch including the extension of the family to Australia where one of her daughters Nulgeria is present in many of that country's best pedigrees

Annabel by George Wilkes is by far the most important of all Jessie Pepper's daughters. Her sire added nothing to her maternal credentials but she in turn had four daughters that produced. The two by Happy Medium, who is devoid of Diomed influence maternally, did not amount to much while a third called Mabel Trask by Peter The Great, who carries Pilot Jr, had an extensive maternal influence both in America and Europe.

Annabel had another very special daughter called Estabella by Alcantara, a sire that we noted earlier as having a Mambrino Patchen dam as well as an extensive Thoroughbred maternal line. Estabella's legacy lies with her daughter Princess Royal. She was by Chimes, who like so many sires of sires, contributed little maternally of the Diomed legacy to his daughters. Nevertheless Princess Royal had accumulated a strong maternal legacy from her dam and produced three daughters known as the McKinney Sisters that have been the significant force in the Jessie Pepper family.

The McKinney Sisters, Royal, Regal and Queenly McKinney were all by McKinney, whose slim connection to the Spanker Mare traces to a daughter of Hambletonian and through his fifth dam by Tiger who is a son of Jane Hunt, one of several Thoroughbred mares with a recognized maternal family of Standardbreds as we shall see later.

The further development of the family into a maternal force to be reckoned with, however, rests upon the sires to which they and their subsequent daughters were bred. Roya and Queenly McKinney were bred to Peter Volo, Peter Scott, Guy Axworthy or Lord Dewey, all of which sires combine American Star, Mambrino Patchen and/or Pilot Jr in one combination or another maternally.

		<i>Happy Medium</i>	<i>Hambletonian</i>	Abdallah
		<i>Princess</i>		Charles Kent Mare
		<i>Pilot Jr</i>		Andrus Hambletonian
		<i>Tackey</i>		Isaiah Wilcox Mare
		<i>Jenny Lind</i>		Canadian Pilot
		<i>Sentinel</i>		Nancy Pope
		<i>Maid Of Lexington</i>		Bay Richmond
		<i>Octoroan Jr</i>		By Post Boy
		<i>Dixie</i>		Hambletonian
		<i>George Wilkes</i>		Lady Patriot
		<i>Black Jane</i>		Mambrino Pilot
		<i>Forward</i>		Brownlock
		<i>Esca</i>		Octoroan
		<i>Hambletonian</i>		Unknown
		<i>Widow Machree</i>		Creole
		<i>Almont</i>		Barker Mare
		<i>Edwin Forrest Mare</i>		Hambletonian
		<i>Hambletonian</i>		Dolly Spanker
		<i>Dolly Spanker</i>		Mambrino Patchen
		<i>Mambrino Patchen</i>		Lady Stanhope
		<i>Estella</i>		George Wilkes
		<i>Fanny G</i>		Loo Coons
		<i>Almont Chief</i>		Almont Chief
		<i>Lady Guilford</i>		Lady Guilford
		<i>Abdallah</i>		Abdallah
		<i>Charles Kent Mare</i>		Charles Kent Mare
		<i>American Star</i>		American Star
		<i>Duryee Mare</i>		Duryee Mare
		<i>Abdallah</i>		Abdallah
		<i>Sally Anderson</i>		Sally Anderson
		<i>Edwin Forrest</i>		Edwin Forrest
		<i>Birmingham Mare</i>		Birmingham Mare
		<i>Abdallah</i>		Abdallah
		<i>Charles Kent Mare</i>		Charles Kent Mare
		<i>Henry Clay</i>		Henry Clay
		<i>Telegraph</i>		Telegraph
		<i>Mambrino Chief</i>		Mambrino Chief
		<i>Gano Mare</i>		Gano Mare
		<i>Australian</i>		Australian
		<i>Fanny G</i>		Fanny G
		<i>Vermont Black Hawk</i>		Vermont Black Hawk
		<i>Messenger Mare</i>		Messenger Mare
		<i>Hambletonian</i>		Hambletonian
		<i>Jenny</i>		Jenny
		<i>Mambrino Pilot</i>		Mambrino Pilot
		<i>Lady Messenger</i>		Lady Messenger
		<i>Mambrino Chief</i>		Mambrino Chief
		<i>Bryan Mare</i>		Bryan Mare
		<i>Abdallah</i>		Abdallah
		<i>Charles Kent Mare</i>		Charles Kent Mare
		<i>Harry Clay</i>		Harry Clay
		<i>Shanghai Mary</i>		Shanghai Mary
		<i>Clay Pilot</i>		Clay Pilot
		<i>Belle Of Wabash</i>		Belle Of Wabash
		<i>Stevens Bald Chief</i>		Stevens Bald Chief
		<i>Netty Clay</i>		Netty Clay
		<i>Hambletonian</i>		Hambletonian
		<i>Dolly Spanker</i>		Dolly Spanker
		<i>Mambrino Patchen</i>		Mambrino Patchen
		<i>Estella</i>		Estella
		<i>Hambletonian</i>		Hambletonian
		<i>Dolly Spanker</i>		Dolly Spanker
		<i>Mambrino Chief</i>		Mambrino Chief
		<i>Lena Pepper</i>		Lena Pepper

Jessie Pepper by Mambrino Chief

Wenonah by Hambletonian

Iona by Alcyone

Miss Nutonia by Nutwood

Queen Audubon by Audubon Boy

Mabel Trask by Peter The Great

Annabel by George Wilkes

Princess Abnnabel by Mambrino King

Frances Medium by Happy Medium

Anne Medium by Happy Medium

Estabella by Alcantara

Queen Regent Ideal by Mambrino King

Grace Hamlin by Mambrino King

Roya McKinney by McKinney

Rose Scott by Peter Scott

Luxury by Peter Scott

La Roya by Guy Axworthy

Highland Mary by Peter Scott

Elsie Scott by Peter Scott

Regal McKinney by McKinney

Abbacy by The Abbe

Edna Early by The Wolverine

Queenly McKinney by McKinney

Roberta Volo by Peter Volo

Queenly Volo by Peter Volo

Almeda McKinney by Lord Dewey

In addition to her daughters, Roya McKinney was the dam of prominent sires Scotland and Highland Scott.

Jessie Pepper never saw any of her eighteen foals. She was moonblind from birth yet lived to the age of twenty eight.

Two of her descendants are pivotal sires in the evolution of the Standardbred, Tar Heel (bottom right) and Scotland (top right)

Source: Times In Harness, 2002 Almanac



			<i>Direct</i>	Director
			<i>Bessie Hal</i>	Echora
		<i>Walter Direct</i>	<i>Prince Pulaski Jr</i>	Tom Hal Jr
			<i>Fanny Brown</i>	Princess
		<i>Napoleon Direct</i>	<i>Erector</i>	Prince Pulaski
			<i>Winnie Davis</i>	Lady Otis
		<i>Lady Erectress</i>	<i>Hal Pizarro</i>	Fayette Wilkes
			<i>Bay Tom Mare</i>	Annie Brown
		<i>Billy Direct</i>	<i>May King</i>	Director
p,4,T1:55m	\$12040		<i>Young Miss</i>	Milly D
		<i>Malcolm Forbes</i>	<i>Happy Medium</i>	Norfolk
			<i>Nancy Lee</i>	Maud
		<i>Gay Forbes</i>	<i>Chimes</i>	Don Pizarro
			<i>Berkshire Chimes</i>	By Brown Hal
		<i>Gay Girl Chimes</i>	<i>Berkshire Belle</i>	Bay Tom
			<i>Gay Boy</i>	Unknown
		<i>Peter Volo</i>	<i>Electric Belle</i>	Electioneer
			<i>Pilot Medium</i>	May Queen
		<i>Volomite</i>	<i>Santos</i>	Young Jim
t,3,2:032h			<i>Nervolo</i>	Miss Mambrino
			<i>Josephine Knight</i>	Hambletonian
		<i>Cita Frisco</i>	<i>Zombro</i>	Princess
			<i>Oniska</i>	Dictator
			<i>Mendocino</i>	Sophy
			<i>Esther</i>	Electioneer
		<i>Leta Long</i>	<i>Axworthy</i>	Beautiful Bells
p,4,2:034m	\$9321		<i>Lillian Wilkes</i>	Alcyone
			<i>Peter The Great</i>	Belle Brassfield
		<i>Rosette</i>	<i>Maggie Onward</i>	Allerton
t,2,2:06m			<i>Peter The Great</i>	Hazelbud
		<i>Mr Mcelwyn</i>	<i>Jenny Scott</i>	Electricity
			<i>Mckinney</i>	Queen Of Belair
		<i>Rose Scott</i>	<i>Princess Royal</i>	Happy Medium
				Tackey
				Grand Sentinel
				Shadow
				Colbert
				Nelly D
				Betterton
				Mambrino Beauty
				Mckinney
				Whisper
				Nutwood Wilkes
				Bayline
				Electioneer
				Mano
				Express
				Coliseum
				Axtell
				Marguerite
				Guy Wilkes
				Flora
				Pilot Medium
				Santos
				Onward
				The Widow
				Pilot Medium
				Santos
				Bryson
				Aetna
				Alcyone
				Rosa Sprague
				Chimes
				Estabella

Tar Heel was a great broodmare sire. His dam shows 10 traces to the **Spanker Mare** in 13 X-factor positions in the sixth generation
His first three dams are all double copies to American Star/Pilot Jr and he has the inbred trace to Miss Russell through **Oniska**

MAMBRINO BEAUTY was a daughter of Mambrino King, a son of Mambrino Patchen noted for his looks as much as for his progeny. He did, however, have his own roots in Thoroughbred blood including a fifth dam by Buzzard whose tail female line traces to a mare by Bartlets Childers. Mambrino Beauty's second dam is said to be Martha Mambrino by Montagus Mambrino who in turn has a dam by Mambrino Patchen. A somewhat slim beginning for Mambrino Beauty soon found another connection for this family to the Spanker Mare as she produced Josephine Knight by Betterton, a sire with an American Star second dam. The building of her legacy was further added to with two daughters. Warlock, whose dam was Waterwitch by Pilot Jr, sired Mary Burton while Nervolo Belle was by Nervolo. This latter sire had a mare by a grandson of Diomed in his maternal pedigree but we know nothing of the maternal pedigree past this mare.

Mary Burton is of interest to European breeders as the dam of Petress Burton by Peter The Great, who produced a daughter by The Harvester called Zsiba, the dam of the significant French sires Kozyr and Ibarra whose own daughters have been responsible for the maternal lines leading to such top French sires as Cesio Josselyn, Fakir Du Vivier, and Podosis among many others. As a passing note we should mention that the maternal line of The Harvester is Clara by American Star.

Nervolo Belle is the daughter best known in North America, of course, since she is the catalyst for the growth in the family of Mambrino Beauty on this continent. Her main claim to fame is as the dam of Peter Volo but her maternal contributions were just as important to the breed, specifically via her two daughters by Peter The Great, Volga E and The Great Miss Morris. It is no surprise to find that the best daughters of these two mares were by such sires as Guy Axworthy, Dillon Axworthy and Guy Abbey, all with substantial maternal connections to Diomed.

Mambrino Beauty by Mambrino King

Josephine Knight by Betterton

Petress Burton by Peter The Great

Zsiba by The Harvester

Nervolo Belle by Nervolo

Volga E by Peter The Great

Yuma by Guy Axworthy

Volga Hanover by Dillon Axworthy

Nettie Hanover by Calumet Chuck

Nervola Hanover by Guy McKinney

Lolita Hanover by Mr McElwyn

Jane Revere by Guy Axworthy

Hanover Venus by Dillon Axworthy

The Great Miss Morris by Peter The Great

The Worthy Miss Morris by Guy Axworthy

Pocahontas by Guy Axworthy

Miss Sarah Abbey by Guy Abbey

Miss Abbey Morris by Guy Abbey

Calumet Belfast by Peter The Brewer

Song Of Songs by Victory Song

Kuno Belle by Kuno

Irish Eyes by Truax

Right: The richest performer from the family of Mambrino Beauty is Napoletano whose sixth dam is Nervolo Belle.

			<i>Volomite</i>	<i>Peter Volo</i>	Peter The Great
		<i>Worthy Boy</i>	<i>Cita Frisco</i>	<i>Cita Frisco</i>	Nervolo Belle
			<i>Peter The Brewer</i>	<i>Peter The Brewer</i>	San Francisco
			<i>Alma Lee</i>	<i>Alma Lee</i>	Mendocita
			<i>Guy Axworthy</i>	<i>Guy Axworthy</i>	Peter The Great
			<i>Widow Maggie</i>	<i>Widow Maggie</i>	Zombrewer
			<i>San Francisco</i>	<i>San Francisco</i>	Lee Worthy
			<i>Dilworthy</i>	<i>Dilworthy</i>	Jane Revere
			<i>Scotland</i>	<i>Scotland</i>	Axworthy
			<i>May Spencer</i>	<i>May Spencer</i>	Lillian Wilkes
			<i>Protector</i>	<i>Protector</i>	Peter The Great
			<i>Mignon</i>	<i>Mignon</i>	Maggie Onward
			<i>Peter Volo</i>	<i>Peter Volo</i>	Zombro
			<i>Cita Frisco</i>	<i>Cita Frisco</i>	Oniska
			<i>Clever Hanover</i>	<i>Clever Hanover</i>	Axworthy
			<i>Santos Express</i>	<i>Santos Express</i>	Dillons Last
			<i>Peter Volo</i>	<i>Peter Volo</i>	Peter Scott
			<i>Cita Frisco</i>	<i>Cita Frisco</i>	Roya Mckinney
			<i>Nelson Dillon</i>	<i>Nelson Dillon</i>	Spencer
			<i>Taffolet</i>	<i>Taffolet</i>	Guyellen
			<i>Worthy Boy</i>	<i>Worthy Boy</i>	Peter Volo
			<i>Stardrift</i>	<i>Stardrift</i>	Margaret Arion
			<i>Scotland</i>	<i>Scotland</i>	Lee Axworthy
			<i>May Spencer</i>	<i>May Spencer</i>	Mary Thomas S
			<i>Protector</i>	<i>Protector</i>	Peter The Great
			<i>Mignon</i>	<i>Mignon</i>	Zervolo Belle
			<i>Peter Volo</i>	<i>Peter Volo</i>	San Francisco
			<i>Cita Frisco</i>	<i>Cita Frisco</i>	Mendocita
			<i>Clever Hanover</i>	<i>Clever Hanover</i>	Bunter
			<i>Santos Express</i>	<i>Santos Express</i>	Sara Hanover
			<i>Peter Volo</i>	<i>Peter Volo</i>	Atlantic Express
			<i>Cita Frisco</i>	<i>Cita Frisco</i>	Evening Gale
			<i>Nelson Dillon</i>	<i>Nelson Dillon</i>	Peter The Great
			<i>Taffolet</i>	<i>Taffolet</i>	Nervolo Belle
			<i>Worthy Boy</i>	<i>Worthy Boy</i>	San Francisco
			<i>Stardrift</i>	<i>Stardrift</i>	Mendocita
			<i>Scotland</i>	<i>Scotland</i>	Dillon Axworthy
			<i>May Spencer</i>	<i>May Spencer</i>	Miss Pierette
			<i>Protector</i>	<i>Protector</i>	Guy Axworthy
			<i>Mignon</i>	<i>Mignon</i>	Taffeta Silk
			<i>Peter Volo</i>	<i>Peter Volo</i>	Volomite
			<i>Cita Frisco</i>	<i>Cita Frisco</i>	Warwell Worthy
			<i>Nelson Dillon</i>	<i>Nelson Dillon</i>	Mr McElwyn
			<i>Taffolet</i>	<i>Taffolet</i>	Dillcisco
			<i>Worthy Boy</i>	<i>Worthy Boy</i>	Peter Scott
			<i>Stardrift</i>	<i>Stardrift</i>	Roya Mckinney
			<i>Scotland</i>	<i>Scotland</i>	Spencer
			<i>May Spencer</i>	<i>May Spencer</i>	Guyellen
			<i>Protector</i>	<i>Protector</i>	Peter Volo
			<i>Mignon</i>	<i>Mignon</i>	Margaret Arion
			<i>Peter Volo</i>	<i>Peter Volo</i>	Lee Axworthy
			<i>Cita Frisco</i>	<i>Cita Frisco</i>	Mary Thomas S
			<i>Nelson Dillon</i>	<i>Nelson Dillon</i>	Peter Volo
			<i>Taffolet</i>	<i>Taffolet</i>	Cita Frisco
			<i>Worthy Boy</i>	<i>Worthy Boy</i>	Nelson Dillon
			<i>Stardrift</i>	<i>Stardrift</i>	Taffolet
			<i>Scotland</i>	<i>Scotland</i>	Guy Axworthy
			<i>May Spencer</i>	<i>May Spencer</i>	Abbacy
			<i>Protector</i>	<i>Protector</i>	Peter The Great
			<i>Mignon</i>	<i>Mignon</i>	Nervolo Belle
			<i>Peter Volo</i>	<i>Peter Volo</i>	
			<i>Cita Frisco</i>	<i>Cita Frisco</i>	
			<i>Nelson Dillon</i>	<i>Nelson Dillon</i>	
			<i>Taffolet</i>	<i>Taffolet</i>	
			<i>Worthy Boy</i>	<i>Worthy Boy</i>	
			<i>Stardrift</i>	<i>Stardrift</i>	
			<i>Scotland</i>	<i>Scotland</i>	
			<i>May Spencer</i>	<i>May Spencer</i>	
			<i>Protector</i>	<i>Protector</i>	
			<i>Mignon</i>	<i>Mignon</i>	
			<i>Peter Volo</i>	<i>Peter Volo</i>	
			<i>Cita Frisco</i>	<i>Cita Frisco</i>	
			<i>Nelson Dillon</i>	<i>Nelson Dillon</i>	
			<i>Taffolet</i>	<i>Taffolet</i>	
			<i>Worthy Boy</i>	<i>Worthy Boy</i>	
			<i>Stardrift</i>	<i>Stardrift</i>	
			<i>Scotland</i>	<i>Scotland</i>	
			<i>May Spencer</i>	<i>May Spencer</i>	
			<i>Protector</i>	<i>Protector</i>	
			<i>Mignon</i>	<i>Mignon</i>	
			<i>Peter Volo</i>	<i>Peter Volo</i>	
			<i>Cita Frisco</i>	<i>Cita Frisco</i>	
			<i>Nelson Dillon</i>	<i>Nelson Dillon</i>	
			<i>Taffolet</i>	<i>Taffolet</i>	
			<i>Worthy Boy</i>	<i>Worthy Boy</i>	
			<i>Stardrift</i>	<i>Stardrift</i>	
			<i>Scotland</i>	<i>Scotland</i>	
			<i>May Spencer</i>	<i>May Spencer</i>	
			<i>Protector</i>	<i>Protector</i>	
			<i>Mignon</i>	<i>Mignon</i>	
			<i>Peter Volo</i>	<i>Peter Volo</i>	
			<i>Cita Frisco</i>	<i>Cita Frisco</i>	
			<i>Nelson Dillon</i>	<i>Nelson Dillon</i>	
			<i>Taffolet</i>	<i>Taffolet</i>	
			<i>Worthy Boy</i>	<i>Worthy Boy</i>	
			<i>Stardrift</i>	<i>Stardrift</i>	
			<i>Scotland</i>	<i>Scotland</i>	
			<i>May Spencer</i>	<i>May Spencer</i>	
			<i>Protector</i>	<i>Protector</i>	
			<i>Mignon</i>	<i>Mignon</i>	
			<i>Peter Volo</i>	<i>Peter Volo</i>	
			<i>Cita Frisco</i>	<i>Cita Frisco</i>	
			<i>Nelson Dillon</i>	<i>Nelson Dillon</i>	
			<i>Taffolet</i>	<i>Taffolet</i>	
			<i>Worthy Boy</i>	<i>Worthy Boy</i>	
			<i>Stardrift</i>	<i>Stardrift</i>	
			<i>Scotland</i>	<i>Scotland</i>	
			<i>May Spencer</i>	<i>May Spencer</i>	
			<i>Protector</i>	<i>Protector</i>	
			<i>Mignon</i>	<i>Mignon</i>	
			<i>Peter Volo</i>	<i>Peter Volo</i>	
			<i>Cita Frisco</i>	<i>Cita Frisco</i>	
			<i>Nelson Dillon</i>	<i>Nelson Dillon</i>	
			<i>Taffolet</i>	<i>Taffolet</i>	
			<i>Worthy Boy</i>	<i>Worthy Boy</i>	
			<i>Stardrift</i>	<i>Stardrift</i>	
			<i>Scotland</i>	<i>Scotland</i>	
			<i>May Spencer</i>	<i>May Spencer</i>	
			<i>Protector</i>	<i>Protector</i>	
			<i>Mignon</i>	<i>Mignon</i>	
			<i>Peter Volo</i>	<i>Peter Volo</i>	
			<i>Cita Frisco</i>	<i>Cita Frisco</i>	
			<i>Nelson Dillon</i>	<i>Nelson Dillon</i>	
			<i>Taffolet</i>	<i>Taffolet</i>	
			<i>Worthy Boy</i>	<i>Worthy Boy</i>	
			<i>Stardrift</i>	<i>Stardrift</i>	
			<i>Scotland</i>	<i>Scotland</i>	
			<i>May Spencer</i>	<i>May Spencer</i>	
			<i>Protector</i>	<i>Protector</i>	
			<i>Mignon</i>	<i>Mignon</i>	
			<i>Peter Volo</i>	<i>Peter Volo</i>	
			<i>Cita Frisco</i>	<i>Cita Frisco</i>	
			<i>Nelson Dillon</i>	<i>Nelson Dillon</i>	
			<i>Taffolet</i>	<i>Taffolet</i>	
			<i>Worthy Boy</i>	<i>Worthy Boy</i>	
			<i>Stardrift</i>	<i>Stardrift</i>	
			<i>Scotland</i>	<i>Scotland</i>	
			<i>May Spencer</i>	<i>May Spencer</i>	
			<i>Protector</i>	<i>Protector</i>	
			<i>Mignon</i>	<i>Mignon</i>	
			<i>Peter Volo</i>	<i>Peter Volo</i>	
			<i>Cita Frisco</i>	<i>Cita Frisco</i>	
			<i>Nelson Dillon</i>	<i>Nelson Dillon</i>	
			<i>Taffolet</i>	<i>Taffolet</i>	
			<i>Worthy Boy</i>	<i>Worthy Boy</i>	
			<i>Stardrift</i>	<i>Stardrift</i>	
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			<i>Mignon</i>	<i>Mignon</i>	
			<i>Peter Volo</i>	<i>Peter Volo</i>	
			<i>Cita Frisco</i>	<i>Cita Frisco</i>	
			<i>Nelson Dillon</i>	<i>Nelson Dillon</i>	
			<i>Taffolet</i>	<i>Taffolet</i>	
			<i>Worthy Boy</i>	<i>Worthy Boy</i>	
			<i>Stardrift</i>	<i>Stardrift</i>	
			<i>Scotland</i>	<i>Scotland</i>	
			<i>May Spencer</i>	<i>May Spencer</i>	
			<i>Protector</i>	<i>Protector</i>	
			<i>Mignon</i>	<i>Mignon</i>	
			<i>Peter Volo</i>	<i>Peter Volo</i>	
			<i>Cita Frisco</i>	<i>Cita Frisco</i>	
			<i>Nelson Dillon</i>	<i>Nelson Dillon</i>	
			<i>Taffolet</i>	<i>Taffolet</i>	
			<i>Worthy Boy</i>	<i>Worthy Boy</i>	
			<i>Stardrift</i>	<i>Stardrift</i>	
			<i>Scotland</i>	<i>Scotland</i>	
			<i>May Spencer</i>	<i>May Spencer</i>	
			<i>Protector</i>	<i>Protector</i>	
			<i>Mignon</i>	<i>Mignon</i>	
			<i>Peter Volo</i>	<i>Peter Volo</i>	
			<i>Cita Frisco</i>	<i>Cita Frisco</i>	
			<i>Nelson Dillon</i>	<i>Nelson Dillon</i>	
			<i>Taffolet</i>	<i>Taffolet</i>	
			<i>Worthy Boy</i>	<i>Worthy Boy</i>	
			<i>Stardrift</i>	<i>Stardrift</i>	
			<i>Scotland</i>	<i>Scotland</i>	
			<i>May Spencer</i>	<i>May Spencer</i>	
			<i>Protector</i>	<i>Protector</i>	
			<i>Mignon</i>	<i>Mignon</i>	
			<i>Peter Volo</i>	<i>Peter Volo</i>	
			<i>Cita Frisco</i>	<i>Cita Frisco</i>	
			<i>Nelson Dillon</i>	<i>Nelson Dillon</i>	
			<i>Taffolet</i>	<i>Taffolet</i>	
			<i>Worthy Boy</i>	<i>Worthy Boy</i>	
			<i>Stardrift</i>	<i>Stardrift</i>	
			<i>Scotland</i>	<i>Scotland</i>	
			<i>May Spencer</i>	<i>May Spencer</i>	
			<i>Protector</i>	<i>Protector</i>	
			<i>Mignon</i>	<i>Mignon</i>	
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			<i>Nelson Dillon</i>	<i>Nelson Dillon</i>	
			<i>Taffolet</i>	<i>Taffolet</i>	
			<i>Worthy Boy</i>	<i>Worthy Boy</i>	
			<i>Stardrift</i>	<i>Stardrift</i>	
			<i>Scotland</i>	<i>Scotland</i>	
			<i>May Spencer</i>	<i>May Spencer</i>	
			<i>Protector</i>	<i>Protector</i>	
			<i>Mignon</i>	<i>Mignon</i>	
			<i>Peter Volo</i>	<i>Peter Volo</i>	
			<i>Cita Frisco</i>	<i>Cita Frisco</i>	
			<i>Nelson Dillon</i>	<i>Nelson Dillon</i>	
			<i>Taffolet</i>	<i>Taffolet</i>	
			<i>Worthy Boy</i>	<i>Worthy Boy</i>	
			<i>Stardrift</i>	<i>Stardrift</i>	
			<i>Scotland</i>	<i>Scotland</i>	
			<i>May Spencer</i>	<i>May Spencer</i>	
			<i>Protector</i>	<i>Protector</i>	
			<i>Mignon</i>	<i>Mignon</i>	
			<i>Peter Volo</i>	<i>Peter Volo</i>	
			<i>Cita Frisco</i>	<i>Cita Frisco</i>	
			<i>Nelson Dillon</i>	<i>Nelson Dillon</i>	
			<i>Taffolet</i>	<i>Taffolet</i>	
			<i>Worthy Boy</i>	<i>Worthy Boy</i>	
			<i>Stardrift</i>	<i>Stardrift</i>	
			<i>Scotland</i>	<i>Scotland</i>	
			<i>May Spencer</i>	<i>May Spencer</i>	
			<i>Protector</i>	<i>Protector</i>	
			<i>Mignon</i>	<i>Mignon</i>	
			<i>Peter Volo</i>	<i>Peter Volo</i>	
			<i>Cita Frisco</i>	<i>Cita Frisco</i>	
			<i>Nelson Dillon</i>	<i>Nelson Dillon</i>	
			<i>Taffolet</i>	<i>Taffolet</i>	
			<i>Worthy Boy</i>	<i>Worthy Boy</i>	
			<i>Stardrift</i>	<i>Stardrift</i>	
			<i>Scotland</i>	<i>Scotland</i>	
			<i>May Spencer</i>	<i>May Spencer</i>	
			<i>Protector</i>	<i>Protector</i>	
			<i>Mignon</i>	<i>Mignon</i>	
			<i>Peter Volo</i>	<i>Peter Volo</i>	
			<i>Cita Frisco</i>	<i>Cita Frisco</i>	
			<i>Nelson Dillon</i>	<i>Nelson Dillon</i>	
			<i>Taffolet</i>	<i>Taffolet</i>	
			<i>Worthy Boy</i>	<i>Worthy Boy</i>	
			<i>Stardrift</i>	<i>Stardrift</i>	
			<i>Scotland</i>	<i>Scotland</i>	
			<i>May Spencer</i>	<i>May Spencer</i>	
			<i>Protector</i>	<i>Protector</i>	
			<i>Mignon</i>	<i>Mignon</i>	
			<i>Peter Volo</i>	<i>Peter Volo</i>	
			<i>Cita Frisco</i>	<i>Cita Frisco</i>	
			<i>Nelson Dillon</i>	<i>Nelson Dillon</i>	
			<i>Taffolet</i>	<i>Taffolet</i>	
			<i>Worthy Boy</i>	<i>Worthy Boy</i>	
			<i>Stardrift</i>	<i>Stardrift</i>	
			<i>Scotland</i>	<i>Scotland</i>	
			<i>May Spencer</i>	<i>May Spencer</i>	
			<i>Protector</i>	<i>Protector</i>	
			<i>Mignon</i>	<i>Mignon</i>	
			<i>Peter Volo</i>	<i>Peter Volo</i>	
			<i>Cita Frisco</i>	<i>Cita Frisco</i>	
			<i>Nelson Dillon</i>	<i>Nelson Dillon</i>	
			<i>Taffolet</i>	<i>Taffolet</i>	
			<i>Worthy Boy</i>	<i>Worthy Boy</i>	

LIZZIE WITHERSPOON founded a family that is also known as the family of Isotta. She was by Almont whose second dam is Kate by Pilot Jr. From that modest start her daughter Betty Mac by Red Wilkes, whose maternal line traced to Morgan ancestry, led to Maid Of Honor by Mambrino King and then to The American Belle by Rex Americus. That sire is from a mare by Dictator whose dam is Clara by American Star and thus the family had its foundation of American Star and Pilot Jr. The Zombro Belle by Zombro was the next female in line and inherited traces to Juliet by Pilot Jr as well as Tiger, son of Jane Hunt from Zombro. Finally we get to Isotta by Peter The Great with the same Juliet trace maternally and the family is ready to take off.

This family is often referred to as the family of Isotta since, as you can see, it spent several generations getting to the point where the maternal identity was built up to a level that was ready to produce something special. The fact that it occurred at a point where the same maternal influence, namely Juliet, was doubled up from both sire and dam is not without significance. Such an event is said to produce a “*double copy*” mare according to the terminology used in Marianna Haun’s book “*The X-Factor*” As we shall see in looking at modern day pedigrees in later chapters, the double copy principal is probably the most significant feature of the maternal pedigrees of the top performers of today.

Isotta had eight daughters with six of them by Dillon Axworthy, who carries Adioo, and in so doing has made a lasting impression on broodmare production of both trotters and pacers. The daughters of Isotta were principals in the development of the Hanover Shoe Farm’s early success and a major building block for their broodmare band. Another daughter is by Sandy Flash whose own dam is by Dillon Axworthy and the eighth daughter is by Calumet Chuck whose own slender maternal legacy comes from Juliet through Peter The Great, sire of his second dam. This daughter had to wait one more generation till she met up with Dean Hanover to make her own claim to fame as third dam of Nevele Pride.

Lizzie Witherspoon by Almont

Betty Mac by Red Wilkes
Maid Of Honour by Mambrino King
The American Belle by Rex Americus
The Zombro Belle by Zombro
Isotta by Peter The Great
Osacka by Dillon Axworthy
Melba Hanover by Calumet Chuck
Isotta Hanover by Dillon Axworthy
Isonta by Dillon Axworthy
Isabel Hanover by Dillon Axworthy
Irene Hanover by Dillon Axworthy
Faith Hanover by Sandy Flash
Easter Hanover by Dillon Axworthy

Right: The maternal legacy of Lizzie Witherspoon includes trotting sires like Noble Gesture, Carlisle and Nevele Pride but its biggest money winner is pacer Gallo Blue Chip, a winner of over \$4 million.

Gallo Blue Chip

p,4,1:484m \$4048586

Albatross

p,4,1:543f

Camatross

Bye Bye Camille

Bye Bye Byrd

Tar Heel

Cathy J Hanover

Poplar Byrd

Evalina Hanover

Tar Heel

Kaola Hanover

Racing Date
p,3,T1:572m

Magical Mike

p,3,1:502m \$1682085

Tyler B
p,3,1:551m

Meadow Skipper
Most Happy Fella

Laughing Girl

Tarport Cheer

Tar Heel

Meadow Cheer

Race Time

Good Time

Tarport Martha

Breath O Spring

Obrien Hanover

Adios Betty

Meadow Skipper

Dale Frost

Countess Vivian

Voodoo Hanover

Dancer Hanover

Vibrant Hanover

Poplar Byrd

Vivian Hanover

Volomite

Ann Vonian

Billy Direct

Adieu

Billy Direct

Leta Long

Titan Hanover

Winnie Hanover

Dale Frost

Countess Vivian

Good Time

Maxines Dream

Billy Direct

Leta Long

Adios

Betty G

Hal Dale

On Time

Worthy Boy

Lady Scotland

Tar Heel

Ormonde Hanover

Adios

Shy Ann

Hal Dale

Galloway

Kings Counsel

Filly Direct

Adios

The Old Maid

Tar Heel

Vivian Hanover

Volomite

Ann Vonian

Billy Direct

Adieu

Billy Direct

Leta Long

Titan Hanover

Winnie Hanover

Hal Dale

Galloway

Kings Counsel

Filly Direct

Hal Dale

On Time

Knight Dream

Maxine Abbe

Napoleon Direct

Gay Forbes

Volomite

Rosette

Hal Dale

Adioo Volo

Wilmington

Betty Crispin

Abbedale

Margaret Hal

Volomite

Nedda Guy

Volomite

Warwell Worthy

Scotland

Spinster

Billy Direct

Leta Long

Dean Hanover

Norma Hanover

Hal Dale

Adioo Volo

Cardinal Prince

Bid Hanover 1931

Abbedale

Margaret Hal

Raider

Bethel

Volomite

Margaret Spangler

Billy Direct

Calumet Edna

Hal Dale

Adioo Volo

Guy Abbey

Spinster

Billy Direct

Leta Long

Guy McKinney

Guesswork

Peter Volo

Cita Frisco

Grattan At Law

Margaret Vonian

Napoleon Direct

Gay Forbes

Hal Dale

Adioo Volo

Napoleon Direct

Gay Forbes

Volomite

Rosette

Calumet Chuck

Tisma Hanover

Belwin

Isonta

Gallo Blue Chip's dam is a double copy to **Oniska** and his second dam is a double to Adioo. Both his sire and his dam have dams with Kathleen and second dams that are double Adioo.

MEDIO is somewhat different from most so-called foundation mares in that she has a recognized sire and dam. She was by Cooper Medium, which adds nothing to her credentials maternally since his maternal pedigree is somewhat of a mystery, but her dam Topsey by Mambrino King certainly does. While Mambrino King's contribution is somewhat vague, that from her second dam known as Grey Eagle Mare could be very supportive, that is if it is the right Grey Eagle since there are at least four by that name around that time. The Grey Eagle that is most likely, given the penchant for Thoroughbred mares that Levi Herr showed, was a fourth generation descendant of Diomed and he had a second dam by Sir Archy as well as a third dam by Diomed. The third dam of the Grey Eagle Mare was also by Sir Archy.

This gives Medio a powerful start along the road to maternal success although even without it the next few generations of the family soon picked up the necessary credentials.

Medio's daughter by Barongale, a sire devoid of Diomed maternally, predictably did not amount to much but her daughters by Baronmore with Mambrino Patchen on board and King Clay, whose second dam is by American Star, have proven themselves albeit in different ways.

The mating to Baronmore produced Pattie Sterling, whose son Sterling Hall produced Anna Maloney. Her dam Nanceala is inbred 3x2 maternally to the great race mare Nancy Hanks and therefore a double copy to Clara by American Star. Nanceala's sire was Vice Commodore whose dam is by Arion thus bringing Miss Russell into the family. Anna Maloney ended up in France where she too has made a name for herself in the broodmare ranks of that country and also in Sweden where she is the maternal line of the excellent broodmare sire Big Lama whose daughter Bibbi Girl produced one of that country's all time greats in Copiad.

The daughter by King Clay was Marble, she the dam of Miss Bertha C, also by Baronmore. She in turn was bred exclusively to Dillon Axworthy, a source of Miss Russell through his dam Adioo, and produced four exceptional daughters with the most notable being Miss Bertha Dillon and the rest was history for this family that has been so important to the success of Hanover Shoe Farms. Miss Bertha C had daughters of American Star on both side of her pedigree to get things started, thus being a double copy to that source of the Diomed legacy. The intersection with American Star early in the development of a maternal family seems almost a prerequisite for building the foundation of the maternal identity even though that influence fades into the background in the face of Miss Russell's contribution in later generations.

Medio by Cooper Medium

Pattie Sterling by Baronmore

Marble by King Clay

Miss Bertha C by Baronmore

The Divorcee by Dillon Axworthy

Shellal by Chestnut Peter

Sara Volo by Peter Volo

Alma Hanover by Peter Volo

Sister Bertha by Dillon Axworthy

Iva Hanover by Guy McKinney

Caroline Hanover by Peter The Brewer

Miss Bertha Dillon by Dillon Axworthy

Miss Bertha Worthy by Lee Worthy

Miss Bertha Hanover by Peter Volo

Hanovers Bertha by Peter Volo

Fay Hanover by Peter Volo

Charlotte Hanover by Peter Volo

Bertha Hanover by Guy McKinney

Bertha C Hanover by Peter Volo

Jane Dillon by Dillon Axworthy

Hollyrood Judith by Peter Volo



From the grand daughters of Miss Bertha C came forty-seven producing broodmares who are maternally responsible for such great performers as Bret Hanover, Best Of All and Mack Lobell.



Above – Best Of All won the Little Brown Jug and Pacer of the Year honors in 1968. Source: Hoofbeats

Left – Bret Hanover was one of the best broodmare sires of the century and a pretty good racehorse too, winning 62 of 68 starts. He retired as the fastest and richest Standardbred of all time. Source: Times In Harness – 2002 Almanac

MISS COPELAND is a daughter of Almont Star, who not surprisingly is from a mare by American Star. Her only daughter of note was Expectation by Autograph who brings Mambrino Patchen into the family from his third dam. She in turn had two daughters, Mattie Graham by Harold and Fruition by Adbell. Neither of these sires provides any support maternally but the next generation is different. Mattie Graham's only daughter is by Nutwood and from there the family takes us via a daughter of her son, Baron Dillon, to the maternal line of Stars Pride.

Fruition is the daughter that extends the maternal family, however, as she produces Fruity Worthy by Axworthy who in turn has several exceptional producing daughters by sires with Miss Russell connections such as Toddington, Volomite and San Francisco including perhaps her most memorable in Claire Toddington, dam of Justissima. Claire Toddington was by Toddington whose dam was by Arion, he being a son of Manette by Nutwood.

Fruition also had two daughters by Peter Volo, one of which, Lexington Maid, is the second dam of Speedster although that is not necessarily the connection that benefited Speedster the most as we shall see later.

The other daughter by Peter Volo was Fruity Volo and her branch also exploded into production when her daughters were bred to Volomite, a source of Oniska,

as in the case of Diana Mite the third dam of Oil Burner.

Miss Copeland by Almont Star

Expectation by Autograph

Mattie Graham by Harold

Mattie Nutwood by Nutwood

Fruition by Adbell

Fruity Worthy by Axworthy

The Worthy Lady by Moko

The Frisco Lady by San Francisco

Our Kate by Volomite

Noble Lady by San Francisco

Lexington Maid by Peter Volo

Fruity Volo by Peter Volo

Claire Toddington by Toddington

Justissima by Justice Brooke



Oil Burner was a fast performer and a multiple stakes winner. He was not expected to pass on his legacy as a sire but his son No Nukes is responsible for one of the most vibrant sire lines in North America. Source : Hoofbeats

		<i>Hal Dale</i>	<i>Abbedale</i>	The Abbe
			<i>Margaret Hal</i>	Daisydale D
	<i>Dale Frost</i>		<i>Raider</i>	Argot Hal
		<i>Galloway</i>	<i>Bethel</i>	Margaret Polk
	<i>Meadow Skipper</i>		<i>Volomite</i>	Peter Volo
	p,3,1:551m	<i>Kings Counsel</i>	<i>Margaret Spangler</i>	Nelda Dillon
			<i>Billy Direct</i>	David Guy
	<i>Countess Vivian</i>		<i>Calumet Edna</i>	Annotation
		<i>Filly Direct</i>		Peter Volo
	<i>Most Happy Fella</i>		<i>Abbedale</i>	Cita Frisco
p,3,T1:55m	\$419033	<i>Hal Dale</i>	<i>Margaret Hal</i>	Guy Axworthy
			<i>Volomite</i>	Maggie Winder
	<i>Good Time</i>		<i>Nedda Guy</i>	Napoleon Direct
		<i>On Time</i>	<i>Nibble Hanover</i>	Gay Forbes
	<i>Laughing Girl</i>		<i>Lydia Knight</i>	Peter The Brewer
	p,4,2:04h	<i>Knight Dream</i>		Broncho Queen
		<i>Maxines Dream</i>	<i>Abbedale</i>	The Abbe
			<i>Margaret Hal</i>	Daisydale D
		<i>Maxine Abbe</i>	<i>Volomite</i>	Argot Hal
			<i>Nedda Guy</i>	Margaret Polk
		<i>Hal Dale</i>	<i>Calumet Chuck</i>	Peter Volo
			<i>Justissima</i>	Cita Frisco
	<i>Adios</i>		<i>Peter The Brewer</i>	Guy Axworthy
p,4,1:542m	\$535541	<i>Adioo Volo</i>	<i>Guy Rosa</i>	Nedda
			<i>Abbedale</i>	Calumet Chuck
	<i>Shadow Wave</i>		<i>Maxine Direct</i>	Justissima
	p,3,1:563m	<i>Silent Grattan</i>	<i>Lydia Knight</i>	Peter The Brewer
			<i>Abbedale</i>	Guy Rosa
	<i>Shadow Grattan</i>		<i>Margaret Hal</i>	The Abbe
		<i>Peacedale</i>	<i>Abbedale</i>	Daisydale D
			<i>Adioo Guy</i>	Argot Hal
	<i>Dottie Shadow</i>		<i>Sigrid Volo</i>	Margaret Polk
		<i>Pegasus Pointer</i>	<i>Grattan Royal</i>	Guy Dillon
	<i>Red Streak</i>		<i>Silent T</i>	Adioo
		<i>Isabel Abbe</i>		Peter Volo
	<i>Diana Streak</i>		<i>Abbedale</i>	Polly Parrot
	p,4,1:584m	<i>Volomite</i>	<i>Miss Dorothy Dillon</i>	Grattan
			<i>Pegasus B</i>	Mona
	<i>Diana Mite</i>		<i>Bally Pointer</i>	<i>Silent Brook</i>
		<i>Diana Dyer</i>	<i>Bert Abbe</i>	Agave
			<i>Virginia D</i>	The Abbe
			<i>Peter Volo</i>	<i>Daisydale D</i>
			<i>Cita Frisco</i>	<i>Dillon Axworthy</i>
			<i>Mr Mcelwyn</i>	<i>Zulu Belle</i>
			<i>Fruity Volo</i>	Zombro
				La Belle 1900
				Star Pointer
				Trix Marshall
				The Abbe
				Miss Ella H
				<i>Guy Axworthy</i>
				Kentucky June
				Peter The Great
				Nervolo Belle
				San Francisco
				Mendocita
				Guy Axworthy
				<i>Widow Maggie</i>
				Peter Volo
				<i>Fruity Worthy</i>

American Star plays a big role in the maternal side of Oil Burner appearing seven times. Dottie Shadow is a double to **American Star** as is her dam, her third dam and fourth dam. The first four dams of Shadow Wave are all doubles to **American Star**, who, like Shadow Wave, was chestnut with a white blaze and white ankles.

MISS DUVALL was by Duvall's Mambrino, a son of Mambrino Chief from a Thoroughbred mare by the English Thoroughbred sire Glencoe whose lines contain several traces to the Brothers Childers maternally. Miss Duvall's dam was by Paddy Burns, a great grandson of Diomed also with Thoroughbred maternal lines. Her third dam was by Davy Crockett whose dam was by Diomed. With this kind of background Miss Duval came ready for business as the founder of a great maternal family. Curiously though it would be three generations before the legacy of Diomed in her own bloodlines would find a sire that brought it to life.

From her daughter by Crittenden called Grisette, the line ascended through Percale by Onward, Topsey Thorne by Silverthorne, Klata Thorne by Klatawah to that mare's two daughters by Joe Dodge called May Dodge and Klata Dodge. In the process the family picked up Pilot Jr as sire of the dam of Crittenden and nothing from Onward. Silverthorne, however, came loaded with a Thoroughbred background that included traces to Diomed's exceptional daughter Young Giantess, two other daughters of Diomed and a direct maternal line trace to a sire called Tipple Cider.

This latter sire will be discussed later when we look at the maternal lines of the French trotter where Tipple Cider made a significant impact after being exported to that country in the early 1800's.

The requisite trace to American Star is provided by Klatawah and Joe Dodge added nothing special. When May Dodge was bred to The Senator, whose maternal line features both American Star and Mambrino Patchen, the result was an American Star double up for Romola.

The combination of a strong Thoroughbred presence coupled with the double to American Star triggered the branch of Romola into one of the most prolific in Standardbred history, a family that continues to produce champions such as 2002 Champion Art Major.

Miss Duvall by Duvalls Mambrino

Grizette by Crittenden
Percale by Onward
Topsey Thorne by Silverthorne
Klata Thorne by Klatawah
May Dodge by Joe Dodge
Romola by The Senator
Senators Sister by Bert Abbe
Romola Hal by Hal Dale
Willola by Willglow
Romola Direct by Bin Direct
Ripples by The Senator
Edalena by Cold Cash
Nora Adele by The Senator
Senatress Nora by Bert Abbe
Miss Norah by Wilmington
Nora Abbe by Bert Abbe
Senatress Abbe by Bert Abbe
Klata Dodge by Joe Dodge
Abbie Dodge by Guy Abbey
Volo Abbie by Volomite
Mary Louise Volo by Volomite
Worthy Gal by Worthy Boy
Holiday Inn by Worthy Boy

Art Major

p,3,1:501s \$1852102

Nihilator

p,3,1:493m

Perfect Profile

p,2,Q1:591

Rodine Hanover

p,2,1:54m

Big Towner

Gene Abbe

Tiny Wave

Dancer Hanover

Romona Hanover

Romola Hanover

Artsplace

p,4,1:492m \$3085083

Miss Elvira

p,2,2:001f

Silent Majority

Abercrombie

p,4,1:53m

Bergdorf

Albatross

Miss Elvira

p,2,2:001f

Ladalia Hanover

Niatross

Nihilator

p,3,1:493m

Perfect Profile

p,2,Q1:591

Margies Melody

Pretty Margie

Gene Abbe

Tiny Wave

Dancer Hanover

Romona Hanover

Romola Hanover

Henry T Adios

Hobby Horse Tar

Duane Hanover

Princess Best

Meadow Skipper

Voodoo Hanover

Columbia George

Lady Kacne

Albatross

Niagara Dream

Bret Hanover

Pretty Margie

Gene Abbe

Tiny Wave

Dancer Hanover

Romona

Hanover

Adios

Greer Hanover

Tar Heel

Wilellen

Knight Dream

Dorsh Hanover

The Widower

Princess Chief

Dale Frost

Countess Vivian

Dancer Hanover

Vibrant Hanover

Good Time

Mitzi Eden

Duane Hanover

Lady Lunken

Meadow Skipper

Voodoo Hanover

Bye Bye Byrd

Scoot

Adios

Brenna Hanover

Meadow Skipper

Margies Storm

Bert Abbe

Rose Marie

Shadow Wave

Tiny Gold

Adios

The Old Maid

Tar Heel

Romola Hal

Hal Dale
Adioo Volo

Nibble Hanover
Veda Hanover

Billy Direct
Leta Long

Wilmington
Willola

Nibble Hanover
Lydia Knight

Dillon Axworthy

Great Medium

Abbedale
Widow Grattan

Chief Abbedale

The Gay Princess

Hal Dale

Galloway

Kings Counsel

Filly Direct

Adios

The Old Maid

Tar Heel

Vivian Hanover

Hal Dale

On Time

The Widower

Tallulah Hanover

Knight Dream

Dorsh Hanover

Goose Bay

Reba Hanover

Dale Frost

Countess Vivian

Dancer Hanover

Vibrant Hanover

Poplar Byrd

Evalina Hanover

Scamp

Doris Spencer

Hal Dale

Adioo Volo

Tar Heel

Beryl Hanover

Dale Frost

Countess Vivian

Storm Cloud

My Margie

The Abbe

Miss Ella H

Martinos

Lady Permilia

Adios

Shadow Grattan

Guinea Gold

Cynthiana

Hal Dale

Adioo Volo

Guy Abbey

Spinster

Billy Direct

Leta Long

Hal Dale

Romola

The dam of Art Major is a double copy to *Margaret Parrish* through *My Margie* and *Cynthiana*.
She is also a double to *Adioo* and *Oniska*, which is a common pattern in the mares that are successful with Artsplace

JANE HUNT is another mare with an extensive Thoroughbred background and is, as noted before, one of only two of the top maternal families that comes from a totally Thoroughbred mare. Her dam, Hunts Moll, is a double copy to The Spanker Mare through Miss Belvoir, a great grand daughter of the Ancestral Mom and through a famous and prolific daughter of Bartlets Childers called Amoret. Jane Hunt's sire is from a mare by Burwells Traveller who also carries Amoret maternally.

Jane Hunt's offspring included the previously mentioned stallion Tiger, as well as the stallion Express and three daughters. Through Sally Sneed she takes the one daughter at a time route for six generations until we get to Kathleen by Pilot Jr, she being another significant maternal influence with her own maternal family that includes the famous branch through Nedda.

Another daughter, Grecian Princess, became a mother of Thoroughbreds and her daughters and their daughters were inbred extensively to the sons and grandsons of Diomed producing only Thoroughbreds.

Her third daughter Indiana by Butlers Columbus benefited from yet another connection to Amoret through the maternal lines of her sire and became the maternal line responsible for such successful early sires as Palo Alto, Passall, Allendorf, Alcyone,

Alcantara, Etawah, Endorser and Belwin to name just a few.

Jane Hunt by Hamptons Paragon

Sally Sneed by Buzzard

Grey Goose by Jacksons Pacolet

Glance by Wild Bill

Little Mistress by Shamrock

Little Miss by Sovereign

Kathleen by Pilot Jr

Ethelwyn by Harold

Grendel by Dictator

Extasy by Baron Wilkes

Brita by Dictator

Indiana by Butlers Columbus

Paragon by Buzzard

Aurora by Aratus

Miss Lances by Lance

Fanny G by Margrave

Liz Mardis by Glencoe

Dame Winnie by Planet

Gertrude Russell by Electioneer

Belle Winnie by Adbell

Estella by Australian

Alma Mater by Mambrino Patchen

Alicia by George Wilkes

Alicia Nutwood by Nutwood

Belle Winnie is the dam of Belwin and Passall and her dam is a full sister to the sire Palo Alto. Alma Mater is the dam of Allendorf, Alcyone and Alcantara. Alicia Nutwood is the third dam of Etawah. The maternal legacy of this family extends through Kathleen and in particular Nedda whose second dam is Extasy

Right: Pedigree of Nedda who set a world record in 1922 of 1:58 1/4

Nedda

t,1:58 1/4

Atlantic Express

t,T2:07 3/4

Expressive

Prodigal

t,2:16

Pleasant Thought

Extasy

p,2,2:10 1/2

Artillery

Bellini

t,2:13 1/2

Merry Clay

Electioneer

Esther

Pancoast

Beatrice

Baron Wilkes

Ethelwyn

Hambletonian

Wells Star

Harry Clay

Ethelberta

Hambletonian

Green Mountain Maid

Express

Colisseum

Woodford Mambrino

Vicara

Cuyler

Mary Mambrino

George Wilkes

Belle Patchen

Harold

Kathleen

Abdallah I

Charles Kent Mare

American Star

Emmons Duroc Mare

Cassius M Clay Jr

Bellfounder Mare

Harold

Juliet

Abdallah

Charles Kent Mare

Harry Clay

Shanghai Mary

Endorser

Nantura

Colossus

Capitola

Mambrino Chief

Woodbine

Harold

Belle

Hambletonian

Grey Rose

Mambrino Patchen

Belle Wagner

Hambletonian

Dolly Spanker

Mambrino Patchen

Sally Chorister

Hambletonian

Enchantress

Pilot Jr

Little Miss

Mambrino
Amazonia
Imp Bellfounder
One Eye
Stockholms American Star
Sally Slouch
Emmons Duroc
Unknown
Cassius M Clay
Chancellor Mare
Imp Bellfounder
Unknown
Hambletonian
Enchantress
Pilot Jr
By Webster
Mambrino
Amazonia
Imp Bellfounder
One Eye
Cassius M Clay Jr
Bellfounder Mare
Irons Cadmus
Jenny By American Star
Wagner
Fanny G
Browners Eclipse
Quiz
Sovereign
Sister To Pryor
Vandal
Margrave Mare
Mambrino Paymaster
Eldridge Mare
Woodford
Singleton Mare
Hambletonian
Enchantress
Mambrino Chief
Belle Lupe
Abdallah
Charles Kent Mare
Harris Hambletonian
Unknown
Mambrino Chief
Gano Mare
Wagner
Lady Bell
Abdallah 1
Charles Kent Mare
Henry Clay
Telegraph
Mambrino Chief
Gano Mare
Mambrino Chorister
Miss Blood
Abdallah
Charles Kent Mare
Abdallah
Bellfounder Mare
Canadian Pilot
Nancy Pope
Sovereign
Little Mistress

Nedda's pedigree combines **Pilot Jr**, **American Star** and **Mambrino Patchen** for the first time in the maternal family.

Her dam is a double copy to **Mambrino Patchen** as well as being from a strongly Thoroughbred line.

Nedda is also a double to **Diomed** through Browners Eclipse and Mambrino Chorister, both with Diomed daughters maternally.

ESTHER is in many ways an extension of the influence of Jane Hunt since she traces back maternally to a mare by Tiger, a son of Jane Hunt. She was a Thoroughbred and was part of an experiment conducted by Leland Stanford, at his farm in Palo Alto, California, in breeding Thoroughbred mares that showed natural trotting ability to his trotting sire Electioneer. R A Alexander had pioneered this same technique several years earlier with great success. Like Alexander before him, Stanford was a thinker and a doer whose innovation had much to do with the evolution of the trotting gait as is shown by this quotation attributed to him by Hervey.

"I bred Thoroughbred mares to Standardbred trotters that I might get the speed and gameness of the one and the coolness and endurance of the other, and then I bred again with a view to developing the trot as a natural gait....I am convinced that eventually horses will be bred so that they prefer trotting to running, and that their greatest speed will be brought out in trotting. In other words, the horse will be so bred that the trot will be his natural gait and consequently the easiest for him."

Esther's sire, Express, gives the family additional impetus since his dam is extensively inbred to Diomed. She had a son, Atlantic Express, who sired the dam of Nedda, a branch of the family of Jane Hunt. He also sired the dam of Dean Hanover.

Her two daughters of note are Expressive by Electioneer and Mendocita by Mendocino. Electioneer brings the mandatory American Star connection to the family and an extensive maternal family results through Expressive. Mendocita is bred to San Francisco, who carries the inbred cross to Lida W, daughter of Nutwood, and the result is Cita Frisco the dam of Volomite, an epochal sire that was very much a rarity. He produced trotters and pacers as well as being a sire of sires and a source of one of the most powerful channels of the Miss Russell legacy.

Esther by Express

Mendocita by Mendocino
Mary Putney by San Francisco
Cita Frisco by San Francisco
Priorita by Protector
Vivacious by Protector
Peerless Princess by Peter Volo
Lady Bird by Guy Axworthy
Frisky Cita by Peter Volo
Cita Worthy by Guy Axworthy
Brucita by Peter Volo
Abbey Putney by San Francisco
Abbielwyn by Mr McElwyn
Expressive by Electioneer
Eva Bellini by Bellini
Taurida by Peter The Great
Selka by Peter The Great
Rani by Lee Axworthy
Girlish Manners by San Francisco
Esther Bells by Monbells
Muscatal by Atlantic Express
Beautiful Bird by Nutwood Wilkes
Carolyn Logan by Jim Logan

Right: Volomite, the Diomed of the Standardbred, sire of sires and of broodmares.

		<i>Happy Medium</i>	<i>Hambletonian</i>	Abdallah
			<i>Princess</i>	Charles Kent Mare
	<i>Pilot Medium</i>		<i>Pilot Jr</i>	Andruss Hambletonian
		<i>Tackey</i>	<i>Jenny Lind</i>	Isaiah Wilcox Mare
			<i>Sentinel</i>	Canadian Pilot
	<i>Peter The Great</i>	<i>Grand Sentinel</i>	<i>Maid Of Lexington</i>	Nancy Pope
t,4,2:07 1/4			<i>Octoroon Jr</i>	Bay Richmond
		<i>Shadow</i>	<i>Dixie</i>	By Post Boy
	<i>Santos</i>		<i>Onward</i>	Hambletonian
			<i>Queen B</i>	Lady Patriot
	Peter Volo	<i>Colbert</i>	<i>Allie Gaines</i>	Mambrino Pilot
t,4,2:02			<i>Jenny</i>	Brownlock
	<i>Nervolo</i>	<i>Nelly D</i>	<i>George Wilkes</i>	Octoroon
			<i>Mother Lumps</i>	Unknown
	<i>Nervolo Belle</i>	<i>Betterton</i>	<i>Mambrino King</i>	Creole
			<i>Allie Mambrino</i>	Barker Mare
	<i>Josephine Knight</i>	<i>Mambrino Beauty</i>	<i>Alcyone</i>	George Wilkes
			<i>Rosa Sprague</i>	Dolly
t,3,2:032h	<i>Zombro</i>	<i>Mckinney</i>	<i>Almont Lightning</i>	Kearsarge
			<i>Mayberry</i>	Jenny
	<i>San Francisco</i>	<i>Whisper</i>	<i>Guy Wilkes</i>	Almont
			<i>Lida W</i>	Maggie Gaines
	<i>Oniska</i>	<i>Nutwood Wilkes</i>	<i>Direct Line</i>	Alexander
			<i>Puss</i>	Nelly Orvis
	Cita Frisco	<i>Bayline</i>	<i>Hambletonian</i>	Hambletonian
			<i>Green Mountain Maid</i>	Dolly Spanker
	<i>Mendocino</i>	<i>Electioneer</i>	<i>Piedmont</i>	Pearsall
			<i>Mamie</i>	Lady Irwin
	<i>Mendocita</i>	<i>Mano</i>	<i>Endorser</i>	Mambrino Patchen
			<i>Nantura</i>	Edwin Forrest Mare
	<i>Esther</i>	<i>Express</i>	<i>Colossus</i>	Allie West
			<i>Capitola</i>	Martha Mambrino
		<i>Colisseum</i>		George Wilkes
				Alma Mater
				Gov Sprague
				Rose Kenny
				Almont
				Molly Bowman
				Comac
				Vinie
				George Wilkes
				Lady Bunker
				Nutwood
				Belle
				Direct
				Lida W
				California Nutwood
				Unknown
				Abdallah
				Charles Kent Mare
				Harry Clay
				Shanghai Mary
				Almont
				Mag Ferguson
				Star Almont
				Kit
				Wagner
				Fanny G
				Brawners Eclipse
				Quiz
				Sovereign
				Sister To Pryor
				Vandal
				Margrave Mare

In addition to the inbred trace to **Miss Russell**, Cita Frisco has a maternal trace through Brawners Eclipse to **Diomed**.

VOLOMITE and Diomed had a lot in common. Both were epochal sires that produced exceptional racehorses, sires to extend the line and daughters who became part of the maternal foundations of their respective breeds.

Foaled in 1926, Volomite was bred at Walnut Hall Farm in Kentucky. As a yearling he was sold for \$5,800 and the owners of the farm that stood his grandsire Peter The Great bought him.

John Hervey closes his account of the story of *The American Trotter* with the story of Volomite, and describes him in glowing terms:

“Not since his grandsire, Peter The Great, dominated the breeding perspective, has any other stallion risen to such pre-eminence and popularity as Volomite, commanded such universal and ungrudging homage, or more truly deserved it.”

His best daughter on the track was Scotch Rhythm 3,2:01 whose greatest legacy may well be that her maternal succession led to Varenne, the Italian bred trotting super star. Scotch Rhythm's second dam was Evensong, a double copy mare to Guy Wilkes (American Star and Mambrino Patchen). The maternal family of Nannie Etticoat leading to Varenne's dam picks up the following traces to the X-factor as it builds to a climax with the birth of Varenne from Ialmaz.

Family of **Nannie Etticoat**

The Red Silk by Baron Wilkes (Mambrino Patchen)

Sybil Knight by Prodigal (Mambrino Patchen)

Taffetta Silk by Moko

Taffolet by Guy Axworthy (American Star, Mambrino Patchen)

Evensong by Nelson Dillon (American Star, Mambrino Patchen)

Scotch Song by Scotland (Mambrino Patchen)

Scotch Rhythm by Volomire (Oniska)

Silken Hanover by Dean Hanover (Hatteras)

Spry Hanover by Hoot Mon (Kathleen)

Spree Hanover by Stars Pride (Oniska)

Baree by Speedy Crown (Oniska, Kathleen)

Ialmaz by Baree (Margaret Parrish, Hatteras)

This veritable whos-who of principal X-factor sources in successive dams is fittingly capped off with the great Margaret Parrish.. What is also striking is the initial buildup of Mambrino Patchen in five of the first six dams. As we have seen, Hatteras is extensively inbred to that same source and the fact that Ialmaz, in addition to having Margaret Parrish, also has a double copy to Hatteras takes on great significance for his future as a sire. Remember too the quote from Alan Porter's book *Patterns of Greatness* when he wrote about the need to go back in the pedigree;

“This can reveal that one particular background cross has been built up to a point where it dominates a pedigree and reaches a critical mass reinforcing vital genes to the point where they explode in the form of a dynamic performer”.

Right: Volomite, the leading sire of 1952-53 and sire of two significant sire lines through Worthy Boy and Victory Song. Source: Times In Harness



SALLY SOVEREIGN is a mare of mysterious ancestry by Montagus Sovereign. While she has some Thoroughbred influence maternally there is nothing to indicate a presence of Diomed. Like so many other maternal families this one goes several generations looking for something to trigger something worthwhile. The first connection to Diomed occurs with her grand daughter Maggie H by Homer. This sire had a dam by Mambrino Chorister who in turn had a Diomed daughter maternally.

Maggie H had four daughters including The Widow by Wilton. This sire had a dam by Hambletonian. The Widow had two daughters of note including Sienna by Peter The Great. She in turn had seven daughters by Belwin, a carrier of American Star, and suddenly the legacy of Sally Sovereign through this branch is born.

The other daughter of The Widow is Maggie Onward who had two daughters by Peter The Great, one of which, Widow Maggie, produced Mr McElwyn while the other ended up in Scandinavia.

Maggie H also had The Gaiety Girl by Red Wilkes, a sire with lots of unknowns in his maternal pedigree. She produced four daughters, and it is through Gayworthy, the daughter of Axworthy that the family of Sally Sovereign gets the bulk of its production. She had five daughters by Justice Brooke that have spread their progeny over three continents including Europe

and Australia. Again it is no surprise to find that Justice Brooke has both American Star and Mambrino Patchen maternally.

Sally Sovereign by Montagus Sovereign

Lady Sentinel by Sentinel
Maggie H by Homer
Widow Lola by Onward
Miss Spear by Peter The Great
The Widow by Wilton
Sienna by Peter The Great
Yashmak by Belwin
Sumatra by Belwin
Station Belle by Belwin
Kashmir by Belwin
Hindustan by Belwin
Corsica by Belwin
Anticipation by Belwin
Maggie Onward by Onward
Widow Maggie by Peter The Great
The Great Maggie by Peter The Great
The Gaiety Girl
Millie Irwin by Bingara
Millie Worthy by Guy Axworthy
Gayworthy by Axworthy
Silvie Brooke by Justice Brooke
Princess Nadena by Justice Brooke
Merry Brooke by Justice Brooke
Gay Brooke by Justice Brooke
Gay Todd by Todd
Gaiety Lee by Bingen

The tribe of Sally Sovereign contains more 1:55 trotters than any other with a list that includes such standouts as Firm Tribute 3,1:54.3, Imperfection 4,1:54.1, millionairess Armbro Keepsake 3,1:54.3 and world champion Beat The Wheel 4,1:51.4.

			<i>Speedster</i>	Rodney	Spencer Scott
				<i>Mimi Hanover</i>	Earls Princess Martha
				<i>Victory Song</i>	Dean Hanover
				<i>Selka Scot</i>	Hanover Maid
				<i>Spud Hanover</i>	Volomite
				<i>Florimel</i>	Evensong
				<i>Darnley</i>	Scotland
				<i>Sparkle Plenty</i>	Selka Guy
				<i>Volomite</i>	Guy McKinney
				<i>Evensong</i>	Evelyn The Great
				<i>Stars Pride</i>	Spencer
				<i>Emily Scott</i>	Carolyn
				<i>Stars Pride</i>	Scotland
				<i>Misty Hanover</i>	Fionne
				<i>Hoot Mon</i>	Worthy Boy
				<i>Burma Hanover</i>	The Gem
				<i>Worthy Boy</i>	Peter Volo
				<i>Stardrift</i>	Cita Frisco
				<i>Emily Scott</i>	Nelson Dillon
				<i>Stars Pride</i>	Taffolet
				<i>Stardrift</i>	Worthy Boy
				<i>Spencer Scott</i>	Stardrift
				<i>Galena Hanover</i>	Scotland
				<i>Speedster</i>	May Spencer
				<i>Scotch Love</i>	Worthy Boy
				<i>Florican</i>	Stardrift
				<i>Worth A Plenty</i>	Dean Hanover
				<i>Rodney</i>	Twilight Hanover
				<i>Mimi Hanover</i>	Scotland
				<i>Victory Song</i>	Missey
				<i>Selka Scot</i>	Nibble Hanover
				<i>Spud Hanover</i>	Earls Princess Martha
				<i>Florimel</i>	Volomite
				<i>Darnley</i>	Warwell Worthy
				<i>Sparkle Plenty</i>	Mr McElwyn
				<i>Stars Pride</i>	Dillcisco
				<i>Emily Scott</i>	Scotland
				<i>Grace Hanover</i>	May Spencer
				<i>Speedster</i>	Dillon Axworthy
				<i>Scotch Love</i>	Great Medium
				<i>Florican</i>	Rodney
				<i>Worth A Plenty</i>	Mimi Hanover
				<i>Rodney</i>	Victory Song
				<i>Misty Hanover</i>	Selka Scot
				<i>Spud Hanover</i>	Spud Hanover
				<i>Florimel</i>	Florimel
				<i>Darnley</i>	Darnley
				<i>Sparkle Plenty</i>	Spencer Scott
				<i>Stars Pride</i>	Earls Princess Martha
				<i>Emily Scott</i>	Dean Hanover
				<i>Grace Hanover</i>	Hanover Maid
				<i>Speedster</i>	Volomite
				<i>Scotch Love</i>	Evensong
				<i>Florican</i>	Scotland
				<i>Worth A Plenty</i>	Selka Guy
				<i>Rodney</i>	Volomite
				<i>Mimi Hanover</i>	Warwell Worthy
				<i>Victory Song</i>	Mr McElwyn
				<i>Selka Scot</i>	Dillcisco
				<i>Worthy Boy</i>	Peter Scott
				<i>Stardrift</i>	Roya McKinney
				<i>Scotland</i>	High Noon
				<i>Fionne</i>	Princess Gay

World Champion Beat The Wheel is a double to **Oniska** as is her dam and third dam.

Her dam, Beat The Band, is inbred 3x2 to **Speedy Scot** and his trace to Mambrino Patchen and American Star through Guy Axworthy.

MAMIE was by Star Almont whose second dam was by the Diomed line sire Bonner's Saxe Weimar. Mamie had four daughters of consequence including Mano by Piedmont who was the dam of Mendocino, sire of the second dam of Volomite. Piedmont is a grandson of the Grey Eagle mare that is inbred to Sir Archy.

Another daughter was Criterion, seventh dam of Albatross. She was by Crittenden whose dam was Flora by Pilot Jr. The line of maternal descent from Criterion starts with her daughter Skillful by Onward, a sire with no maternal connections to Diomed, then to Elsie Leyburn by Expedition who is a grandson of Miss Russell. Then we have Guesswork by Peter The Great and his Pilot Jr. trace, followed by Vivian Hanover by Guy McKinney, son of Queenly McKinney, then Vibrant Hanover by Tar Heel with his maternal trace to Oniska through Volomite as well as another of the McKinney Sisters, Roya, as his fourth dam. Finally we arrive at Voodoo Hanover, the dam of Albatross, by Dancer Hanover and this sire brings into play the third McKinney sister, Regal McKinney, through Guy Abbey, the sire of his dam. Four of the five dams in this sequence were double copies to Pilot Jr.

Mamie also had two daughters by Onward, a sire that carried the same trace to the Thoroughbred sire Saxe Weimar as did Mamie. They were Rose Leyburn and

Helen Leyburn. The latter was exported to France and produced two sons that appear in French maternal lines called Fred Leyburn and Dakota. Fred Leyburn's daughter Dannemarie is the third dam of Carioca I I, one of the great broodmare sires in French breeding.

Rose Leyburn had a single daughter in Margaret Leyburn by Wilton and she in turn had Lady Leyburn by Arion. Her only daughter of note was Margaret Parrish by Vice Commodore but what a daughter she turned out to be as we have already seen.

Mamie by Star Almont

Rose Leyburn by Onward
Margaret Leyburn by Wilton
Lady Leyburn by Arion
Margaret Parrish by Vice Commodore
Mano by Piedmont
Helen Leyburn by Onward
Criterion by Crittenden
Wiltos Leyburn by Wilton
Dorothy Day by Peter The Great
Lyra by Guy Axworthy
Dorothy by Guy Axworthy
Carmen by Guy Abbey
Skillful by Onward
Elsie Leyburn by Expedition
Guesswork by Peter The Great
Vivian Hanover by Guy McKinney
Vibrant Hanover by Tar Heel
Voodoo Hanover by Dancer Hanover
Veda Hanover by Billy Direct
Prima Hanover by Ensign Hanover

Right: Albatross is a World Champion and one of the greatest pacing sires in history. His daughters have produced many of todays top pacing stallions. Source : Times In Harness – 2002 Almanac



MIDNIGHT was the dam of the first trotter to win in 2:10 by the name of Jay-Eye-Cee. Like Miss Russell, she is by Pilot Jr from a Thoroughbred maternal line that includes Diomed. She is unlike Miss Russell though in her effect on the maternal lines of other foundation mares in that she has an extensive family of her own based on her three daughters of note. She did have a son called Electricity who passed Midnight's legacy on to his daughters and in particular to the maternal line of Billy Direct.

Her daughter Lady Kerner was by Prescott who contributed nothing but she had a daughter by Prince George who provided the foundation of American Star from his second dam. We then go to Fan Patch by Joe Patchen who also provides no maternal connections and finally to Great Patch by Peter The Great where the family of this branch gets going through two daughters, Little Lie and Sally Patch by Mr McElwyn, that are inbred 3x2 maternally to Peter The Great and his trace to Kathleen by Pilot Jr.

Midnight has two daughters by Harold in Noontide and Daybreak. The latter has a daughter that ends up in Australia by the name of Dayspring and she creates a large maternal family but without any really memorable performers. Noontide, however, is another story. Her only producing daughter was Rosie Morn by Alcantara, whose dam was by Mambrino Patchen. Rosie Morn had the daughter that triggered the

development of the family of Midnight into one of the best in terms of speed and earnings production. That daughter was Emily Ellen by Todd who brings Miss Russell and Mambrino Patchen back into the family and makes Emily Ellen a double copy to both traces.

Emily Ellen's best daughters were Guyellen and Trudy, by Guy Axworthy, adding both American Star and Mambrino Patchen again, and Emily Guy by Arion Guy whose dam is Margaret Parrish and 3x2 inbred to Arion and the legacy of Miss Russell.

This is yet another excellent example of how the intersection with the bloodlines of Miss Russell, added to a foundation that includes American Star and/or Mambrino Patchen, can produce the "*trigger effect*" needed to spur the maternal family on to greatness. World Champion Pine Chip is one result.

Midnight by Pilot Jr

Noontide by Harold

Rosie Morn by Alcantara

Morning Bells by Bow Bells

Emily Ellen by Todd

Midi by Electioneer

Noonday by Wedgewood

Lady Kerner by Prescott

Polly Pry by Prince George

Fan Patch by Joe Patchen

Great Patch by Peter The Great

Little Lie by Mr McElwyn

Sally Patch by Mr McElwyn

Jane Whelan by Red Aubrey

Daybreak by Harold

Dayspring by California

OTHER FAMILIES

The trigger effect is not exclusive to top maternal families. An interesting example of how the Miss Russell or Diomed influence can spur a slow developing family on is the case of Kitty Carroll. This mare of unknown parentage produced Bell Monarch by Almonarch who in turn had Inez Brown by Golden Gateway. This sire's third dam Gretchen is by Mambrino Pilot whose dam is Juliet by Pilot Jr, another daughter with Thoroughbred maternal lines. This slender connection to Diomed will sit for another four generations through successive mares producing but one daughter via Halberta, Silver Direct, and Merry Bars and picks up its next trace through White Mountain Girl from her sire Volomite, yet another Miss Russell carrier via Oniska. When bred to Adios, a source of Adioo, the result was Lynn Adios, who in turn was bred to Overtrick bringing in Helen Hanover, a mare inbred 2x3 to Adioo, into the critical mass to produce Caledon Jay. Armbro Omaha provides the next boost via his maternal Miss Russell sires Tar Heel with Oniska, and Adios, with Adioo again, and the result is Jays Omaha, the dam of the fastest Canadian bred mare of all time in Jays Table p.1.49.3.

There is an interesting twist to this tale since Inez Brown had another daughter called Calgary Lady by Hal Mercury and is responsible maternally for another top Ontario stakes filly called A M Playgirl p.3, 1.56,

a winner of over \$220,000 taking her record in 1981, twenty seven years before Jays Table took hers. AM Playgirl, like Jay's Omaha, dam of Jays Table, is by Armbro Omaha and also out of an Overtrick mare. She became a broodmare also but was never bred to Run The Table, sire of Jays Table. We can only wonder about the opportunity missed as a result

Inez Brown by Golden Gateway

Halberta by Direct Hal

Silver Direct by Merry Direct

Merry Bars by Grattan Direct

White Mountain Girl by Volomite

Caledon Jay by Overtrick

Jays Omaha by Armbro Omaha

Calgary Lady by Hal Mercury

Alta Direct 2nd by Merry Direct

Meadow Dream by Adios

Armbro Ideal by Capetown

Armbro Snippy by Overtrick

A M Playgirl by Armbro Omaha

Canadian bred Champion Jays Table . Source: Hoofbeats



KATHLEEN by Pilot Jr. is particularly noteworthy. As we saw earlier she is part of the family of Jane Hunt but deserves special attention because of two pivotal sires in her family, namely Albatross and Speedy Crown. I use the term family loosely in this context since Speedy Crown does not have Kathleen as a direct maternal descendent but nevertheless she appears to be a major part of his success.

Kathleen had a daughter by Harold called Ethelwyn who gained nothing maternally from her sire but nevertheless had seven daughters. Three of these daughters were significant producers including Grendel and Brita both by Dictator, a son of Hambletonian from Clara by American Star.

The third daughter of Ethelwyn was Extasy by Baron Wilkes, whose dam was by Mambrino Patchen. She is the fountainhead for Kathleen's success. She had four daughters, two by Prodigal who has a Mambrino Patchen dam, one by Peter The Great with his connection to Pilot Jr and the fourth daughter by Binvolo whose fourth dam is by Nutwood.

Pleasant Thought by Prodigal produced Nedda by Atlantic Express, a sire that introduced the needed trace to American Star to start this branch off. Nedda, through Nedda Guy by Guy Axworthy, picks up both American Star again and Mambrino Patchen and that line is on its way to making Nedda the third dam of

Good Time and the sixth dam of Big Towner. The other daughter of Nedda is Meda by Peter Volo another sire with American Star and Mambrino Patchen in tow and she starts off on her trail to create a substantial family from her four daughters.

Extasy's daughter by Peter The Great was called Petrex and she became the dam of Spencer, a sire whose daughters have kept their ancestor Kathleen omnipresent in today's best trotting pedigrees especially through Hoot Mon, whose second dam is by Spencer, Noble Victory with a third dam by Spencer and through Speedy Crown whose dam is by Florican, whose dam is by Spencer. The doubling up of Kathleen in pedigrees with Speedy Crown maternally is particularly significant with certain sires, notably Pine Chip and Valley Victory.

To date the top sixteen offspring by Pine Chip are all from dams that are double copies to Kathleen or have second dams showing that feature in combination with Margaret Parrish maternally.

This is an excellent example of using the maternal identity as a tool for breeding or purchase decisions and it is not a unique or lucky circumstance. In fact it was predictable that Pine Chip might react in that manner since his dam, Pine Speed by Speedy Somolli, is a double copy to Kathleen as are his second and fourth dams as we saw earlier.

			<i>Speedster</i>	Rodney	Spencer Scott
			<i>Mimi Hanover</i>	Earls Princess Martha	
			<i>Victory Song</i>	Dean Hanover	
			<i>Selka Scot</i>	Hanover Maid	
			<i>Hoot Mon</i>	Volomite	
			<i>Beverly Hanover</i>	Evensong	
			<i>Peter Song</i>	Scotland	
			<i>Josephine Knight</i>	Selka Guy	
			<i>Worthy Boy</i>	Scotland	
			<i>Stardrift</i>	Missey	
			<i>Rodney</i>	Mr McElwyn	
			<i>Bewitch 1950</i>	Hanovers Bertha	
			<i>Demon Hanover</i>	Peter Volo	
			<i>Silver Lex</i>	Evensong	
			<i>Sampson Hanover</i>	Protector	
			<i>Blythe Hanover</i>	Josephine Brewer	
			<i>Speedster</i>	Volomite	
			<i>Scotch Love</i>	Warwell Worthy	
			<i>Florican</i>	Mr McElwyn	
			<i>Worth A Plenty</i>	Dillcisco	
			<i>Worthy Boy</i>	Spencer Scott	
			<i>Stardrift</i>	Earls Princess Martha	
			<i>Hoot Mon</i>	Volomite	
			<i>Laurita Hanover</i>	Bexley	
			<i>Harlan</i>	Dean Hanover	
			<i>Lydean Hanover</i>	Sorceress 1	
			<i>Nibble Hanover</i>	Silver King	
			<i>Precious Hanover</i>	Bunty Dean	
				Volomite	
				Irene Hanover	
				Hoot Mon	
				Brenda Hanover	
				Rodney	
				Mimi Hanover	
				Victory Song	
				Selka Scot	
				Spud Hanover	
				Florimel	
				Darnley	
				Sparkle Plenty	
				Volomite	
				Warwell Worthy	
				Mr McElwyn	
				Dillcisco	
				Scotland	
				Missey	
				Dean Hanover	
				Leading Lady	
				Sandy Flash	
				Calumet Aristocrat	
				Scotland	
				Fionne	
				Dillon Axworthy	
				Palestrina	
				Spencer Scott	
				Hollywood Lyda	
				Truax	
				Sumatra	
				Justice Brooke	
				Claire Toddington	
				Scotland	
				Missey	
				Spencer	
				Prudy	

Kathleen dominates the pedigree of Pine Chip. His dam, second dam and fourth dam are all double copies to this source. His top sixteen offspring to date all show the same maternal connection to Kathleen

Sire Report for: PINE CHIP

Top Performers by Earnings

Horse	YOB	Earnings	1 st Dam Sire	2 nd Dam Sire	3 rd Dam Sire	4 th Dam Sire	5 th Dam Sire	A	H	K	M	O	MP	H
Chip Chip Hooray	1998 H	\$1,095,001	Valley Victory AHKM2O	Speedy Crown KO	Nevele Pride HK	Victory Song -	Dean Hanover H	1	1	1	1	X		
Scarlet Knight	1998 H	\$1,083,000	Incredible Nevele H	Speedy Crown KO	Noble Victory KMO	Florican K	The Intruder M2		2	2	2	X		
Enjoy Lavec	1996 H	\$933,956	Speedy Crown KO	Speedy Count	Nibble Hanover M	Spencer Scott KM	Mr McElwyn				1			
Aviano	1997 M	\$823,228	Speedy Crown KO	Florlis	Speedstar KO	Guy Abbey	Volomite O		1	1				
Civil Action	1999 H	\$709,110	Supergill AHK	Homesick HKM2	Kimberley Kid A	Lusty Song	Calumet Chuck	1	1	1		X		
Starchip Enterprise	1996 H	\$639,548	Speedy Crown KO	Noble Victory KMO	Stars Pride O	Rodney M2	Belwin		1	2	1	X		
Dream Vacation	1997 H	\$616,257	Valley Victory AHKM2O	Speedy Crown KO	BF Coaltown M2O	Victory Song	Hoot Mon K + AM2	1	1	1	1	X3		
Smokn Lantern	1997 H	\$466,435	Dream Of Glory AO	Speedy Crown KO	Stars Pride O	Hoot Mon K	Lawrence Hanover A	1	2	1				
Cobol	1998 H	\$411,337	Valley Victory AHKM2O	Speedy Crown KO	Hickory Pride H	Hoot Mon K	Nibble Hanover M + AM2	1	1	1	1	X2		
Pine Dust	1998 M	\$407,260	Tibur B	Speedy Crown KO	Speedy Count	Hoot Mon K	Dean Hanover H		2					
Ariane Du Haras	1998 M	\$403,736	Balanced Image AHO	Speedy Crown KO	Super Bowl AM2O	Noble Victory KMO	Florican K + AM2	1	2			X2		
My Starchip	1999 M	\$376,089	Joie De Vie A	Speedy Crown KO	Noble Victory KMO	Stars Pride O	Rodney M2		2	2	2	X		
Rae Boko	1999 M	\$371,535	Super Bowl AM2O	Noble Victory KMO	Florican K	Sampson Hanover A	Scotland	1	2	1	1	X		
Bit O Candy	1996 M	\$345,089	Valley Victory AHKM2O	Lindys Pride AKM	Speedy Scot	Florican K	Darnley O	1	1	1	1	X		
Mystical Michelle	1997 M	\$339,116	Speedy Crown KO	Stars Pride O	Hoot Mon K	Dean Hanover H	Peter The Brewer		1	1				
Davanti	1996 H	\$328,500	Speedy Crown KO	Florlis	Speedstar KO	Guy Abbey	Volomite O		1	1				

PROFILE FACTORS

Sire Lines : 14/16 including top 12 have **Speedy Crown or son** in first two dams as a sire. Exceptions have doubles to Adioo, Manette and Oniska.
 Maternal X-Factors : 100% have a double to Kathleen either first or second dam. Top one has dam with double copies to Kathleen, Hatteras and Oniska
 Key Mares : 10/16 have Margaret Parrish maternally , all exceptions have Kathleen in sires of third or fourth dams

You can construct a report for any sire regarding their top performers and analyse it with respect to the principal traces to the X-factor that exist in the immediate pedigree.

The Sire Report (opposite) for Pine Chip lists his top 16 performers in order of their earnings and shows the sires of their first through fifth dams. Each sire brings something different to contribute to the maternal identity of the performer and that contribution is noted below the sire name using letters as follows:

A – Adioo, H – Hatteras, K – Kathleen, M – Manette, and O – Oniska.

The presence of Helen Hanover is shown as A2 (double Adioo), and that of Margaret Parrish is M2 (double Manette). Manette is a daughter of Nutwood, and the dam of Arion. The occurrence of a double copy to any source is noted in the columns to the right under the respective letters of A, H, K, M, or O. In the case of an occurrence of Margaret Parrish or Helen Hanover anywhere in the pedigree it is noted with an X in that column; two traces are X2; three are X3, etc.

The double copy to Kathleen in the top performers by Pine Chip almost always involves Speedy Crown. In fact a large percentage of the best, 13 of 16, have a Speedy Crown first or second dam. One of the

exceptions has a second dam by Homesick, a son of Speedy Crown who also carries Kathleen as well as Margaret Parrish. Ten of the top performers show Margaret Parrish maternally and four of the exceptions are out of Speedy Crown mares while five of the six exceptions have a second Speedster line in the first three dams.

If you take the factor that accounts for the biggest percentage of the best and attach additional factors to take care of the exceptions you end up with a “*profile*” of the sire with respect to the type of mares with which he works best. Using a summary profile you can quickly improve your own decision-making percentages with respect to breeding and buying accordingly.

There is one mare among these that has something different in her maternal identity. Pine Dust was Swedish bred from a mare by Tibur. He is essentially French bred and is from a mare by Kairos, a son of imported American sire The Great McKinney from Uranie who is, as we shall see later, a significant source of the Spanker Mare through Belle Poule. Tibur’s second dam is by a sire from the Norfolk Trotter line through Lavater and her maternal side is full of Thoroughbred and Norfolk Trotter bloodlines. It is, indeed, becoming a very small world when it comes to breeding Standardbreds.

As is the case of Pine Chip, we saw in an earlier discussion about Garland Lobell that he is a sire that seeks a maternal influence in the mare that matches the one present in his own maternal lines, in his case the X-factor trace to Hatteras. In a later discussion we will see a similar situation in the maternal identity of

Varenne. It would not surprise me to see a great champion come from the breeding of Varenne to a mare by Garland Lobell like Cameron Hall.

Below: Speedy Crown owes much of his broodmare success to the presence of Kathleen in his maternal pedigree.

Source: Hoofbeats



		<i>Speedy Somolli</i>	<i>Speedy Crown</i>	<i>Speedy Scot</i>	Speedster
			<i>Somolli</i>	<i>Missile Toe</i>	Scotch Love
				<i>Stars Pride</i>	Florican
				<i>Laurita Hanover</i>	Worth A Plenty
				<i>Stars Pride</i>	Worthy Boy
				<i>Pillow Talk</i>	Stardrift
				<i>Blaze Hanover</i>	Hoot Mon
				<i>Clever Diller</i>	Lark Hanover
				<i>Quick Song</i>	Worthy Boy
				<i>Odile De Sassy</i>	Stardrift
				<i>Hickory Pride</i>	Rodney
				<i>Lady Frost</i>	Bewitch
				<i>Speedy Scot</i>	Hoot Mon
				<i>Missile Toe</i>	Beverly Hanover
				<i>Stars Pride</i>	Diller Hanover
				<i>Spry Hanover</i>	Hoot Nimble
				<i>Noble Victory</i>	Victory Song
				<i>Emilys Pride</i>	Lucile Spencer
				<i>A Cs Princess</i>	Gi
				<i>Speedy Crown</i>	Herodiade De Grandchamp
				<i>Genya Hanover</i>	Stars Pride
				<i>Gleeful Hanover</i>	Misty Hanover
				<i>Florida Pro</i>	Rodney
				<i>Promissory</i>	Fan Siskiyou
				<i>Nevele Pride</i>	Speedster
				<i>Lovester</i>	Scotch Love
				<i>Super Bowl</i>	Florican
				<i>Elma</i>	Worth A Plenty
				<i>Speedy Count</i>	Stars Pride
				<i>Brendina Hanover</i>	Arpege
					Dean Hanover
					Golda
					Speedy Scot
					Ambitious Blaze
					Dartmouth
					Proud Emily
					Stars Pride
					Thankful
					Speedster
					Lovers Walk
					Stars Pride
					Pillow Talk
					Hickory Smoke
					Cassin Hanover
					Speedster
					Countess Song
					Hoot Mon
					Brenda Hanover

Foal of 2004

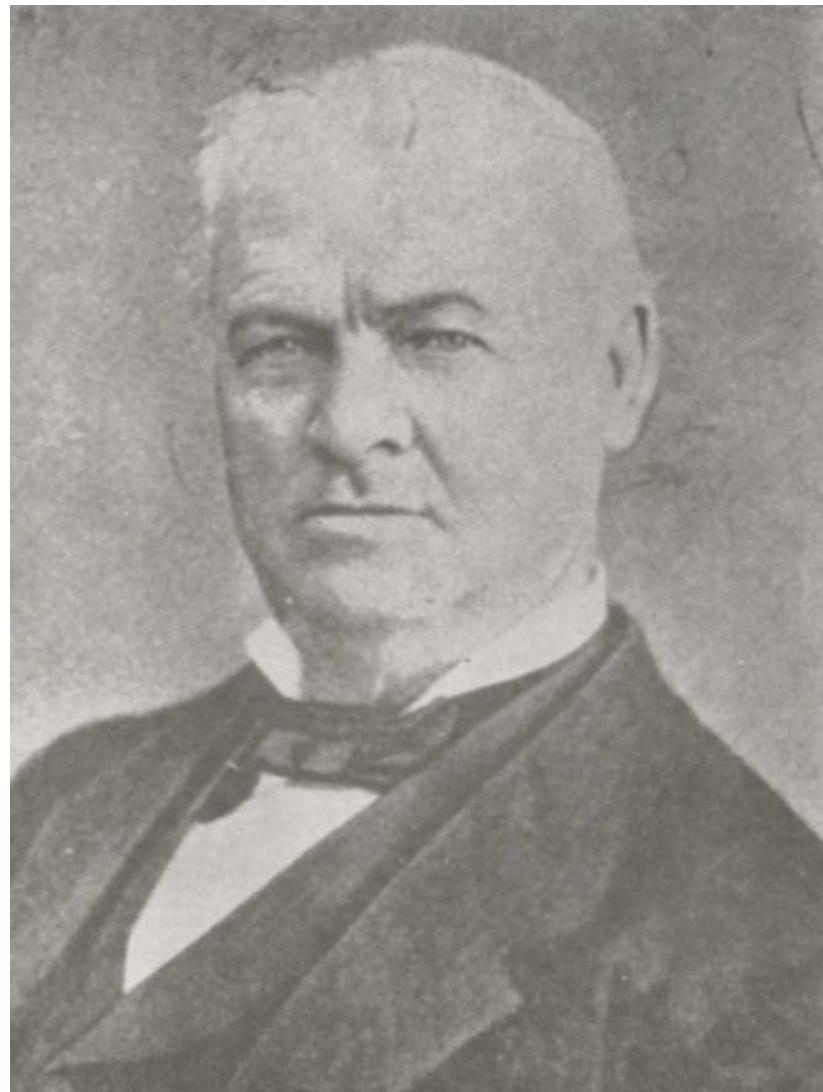
The hypothetical pedigree of Varenne bred to Cameron Hall shows the extensive influence of **Hatteras** maternally in both parents
Courtesy of Pedigree Matching

PERFORMANCE AND PEDIGREE

THE STANDARD

Most everyone familiar with pedigrees of any kind understands the male role in the equation and thus can identify the offspring by the sire line or stallion involved. It has been my aim up to this point to establish in the reader's mind at the least a recognition of the role of the maternal lines in the pedigree and some sense of their importance. In so doing it is not my intention to belittle or minimize the importance of the paternal identity but rather to set both on at least an equal footing when it comes to evaluating what is good or bad for the breed. That evaluation begins with the pedigree itself.

The Standardbred is relatively young as a breed and was first documented in Wallace's *American Trotting Register* published in 1871. John Wallace, who had also been involved in the production of the first North American Registry of the Thoroughbred horse, was the compiler of this first edition which contained the pedigrees and performance information for some 3000 horses that met the "Standard" he set for entry into the Trotting Register. The standard he chose was the ability to trot in a time of 2:30 or better at a distance of one mile or to produce an offspring meeting the standard.



John Wallace established The Trotting Register in 1871
Source: *The American Trotter*

There are many breeds of horses as there are of dogs, cats, cattle and the many other purebred animals. Most breeds have standards for admission to their registers based on appearance such as size, colour, body conformation and other physical attributes. Not so the Standardbred. This breed, like the Thoroughbred, is judged by a standard of performance and initially had to meet the performance standard that Wallace established.

It mattered not to Wallace whether the animal was of Thoroughbred origin or was from one of the many other breeds of the day which included the Morgans, Gold Dusts, Copperbottoms, the Canadians, and of course the descendants of the great Messenger and his grandson Hambletonian.

If you go down any shedrow at one of today's tracks you will see a wide variety of so-called "*Standard*" breeds. You will see black, brown, bay, roan, chestnut and even palomino pacers and trotters. You will see tall horses, small horses, long tailed ones and short tailed ones. You will see horses that are fine boned and some that look more like draft horses. They all, however, have one thing in common and that is the ability to trot or pace at speeds that were unimaginable in the days of Wallace's initial performance standard.

In the early days of publication of the Registry the pacer was considered a non-standard bred although they were raced in harness just like the trotters. It took several years until Wallace and some of the other breeders were prepared to acknowledge that the ability to pace at speed was indeed worthy of recognition as part of the Standard. Wallace established the standard for pacers at 2:25 in a somewhat futile attempt to limit their inclusion. The popularity of the pacer, however, and the spread of pacing races soon tipped the balance in favour of the pacer and by 1900 the new entries into the Register were pacers in the majority.

The Wallace Registry continued to be published until the mid 1930's when the responsibility was transferred to the newly formed United States Trotting Association. It now appears annually as the USTA Sires and Dams Register.

As I noted earlier the origins of the Standardbred are many and varied but today's harness racers, North American bred at least, all, with very few exceptions, trace their paternal lines to one horse, the famous Hambletonian. Surprisingly Hambletonian, born in 1849, is not known to have competed in a race but entered the registry as a result of his sire Abdallah having produced some top trotters of the day.

THE PEDIGREE

In its simplest form a pedigree contains a record of the name of the father or sire and the mother or dam together with the name of the horse itself. This basic information is sufficient to record the horse in the register along with the birth date, breeder name and other identifying features such as sex and colour. It does not, however, convey any sense of the importance of the parents involved unless you are familiar with the names. Even then it is not possible to give an opinion on the value of the pedigree based simply on the parentage.

Breeding quality horses capable of performing at the highest levels is much more than simply breeding the best to the best. If it was that simple then everyone would have a World Champion and those with the money to buy the best would dominate the sport. Thankfully that is not the case and the Standardbred breed history is full of the exploits of horses that were champions but were essentially ignored as yearlings because of their looks or their supposed shortcomings with respect to pedigree.

The pedigree is the foundation of the breed just as the 3000 plus pedigrees that Wallace documented were the foundation of the Standardbred Register. Without a proper foundation nothing lasts. The foundation of a house is probably less than 10% of the total cost but

ignoring its importance will inevitably cost you in the long run. So it is with the pedigree of the Standardbred. If you intend to invest in a racehorse then it is important to have an understanding of the fundamentals of breeding just as it is important to know the fundamentals of corporate structure when you invest in the stock market.

Understanding pedigrees requires the ability to recognize what it is in the pedigree that is important and significant. The Standardbred is a performance-based breed, by that I mean the very best have the ability to go fast and make money. A pedigree with just names therefore is next to useless unless you can see the performance data for other horses in the pedigree or family.

You will hear breeders talk about “*families*”, particularly maternal families, and there is good reason for this. One noted breeder told me once that money in the family is money in the future and truer words were never spoken. Notice that he said money not speed, although the Standardbred is a creation of speed at the trot or pace.

There are many horses that have high speed but make little or no money. Similarly there are many horses that judging by their parents should be world champions but are complete failures on the track and in the breeding shed.

A full examination of the pedigree will, however, allow you to avoid such horses and focus on the ones with true earnings potential because after all that is the bottom line for owners or potential owners.

Pedigrees can be presented in several ways and indeed can also be interpreted in different ways. Most people who attend harness racing are probably familiar with wagering on the races and the variety of ways there are to handicap the horses and try to pick the winners.

Evaluating pedigrees is much the same process. Numbers, statistics and patterns are what you look at and the relative importance you put on these in combination is a very individual thing.

The catalog page in a typical sales catalog is much like the page in a race program only the time lines are extended back several generations. Instead of racelines you are looking at bloodlines with performance numbers attached which show the speed and earnings of individuals in the family.

At the top of the page is what is known as a pedigree tree that typically lists the first three generations of the ancestors. Quite often, however, it is important to dig deeper into the family tree to six generations and beyond, as you look for what I call "*Patterns of Success*".

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Consigned by: Village Acres Brampton
Raised by: Green Gables, Brampton, Ontario

VILLAGE BLITZ

(Ontario Eligible)
Tattoo #WR756

A2

BAY COLT March 6, 2000	Village Jiffy p,1:50.....	Cam Fella p,4,1:53.1	Most Happy Fella p,3,T1:55
	BREEDERS	Nan Cam p,2:05.1f	Nan Cam p,2:05.1f
		Direct Scooter p,3:1:54	Direct Scooter p,3:1:54
		Juno Lobell p,2,T1:58.1	Juno Lobell p,2,T1:58.1
	Village Blues p,3,1:53.3s	No Nukes p,3,T1:52.1	No Nukes p,3,T1:52.1
		Jate Lobell p,3,1:51.2	J R Amy
		Bola p,4,1:56.4f	Albatross p,4,1:54.3f
			Margaux p,2,2:07f
	2nd foal	World Champion 3 in 1:55	World Champion 4 in 1:55
		6 in 2:00	\$1.3 million winner
		1 \$400,000 winner	2 \$600,000 winners
		3 \$100,000 winners	4 \$100,000 winners

1st dam

VILLAGE BLUES p, 2, 1:55; 3, 1:53.3s (\$254,456) 11 wins, by JATE LOBELL p, 3, 1:51.2. At 2, winner New York Sires S. at Vernon Downs and Syracuse; second in New York Sires S. at Yonkers and Monticello. At 3, winner Scarsdale Pace and New York Sires S. at Yonkers, Saratoga, Batavia and Buffalo; second in Breeders Crown elimination and Newy York Sires S. Final; third in Breeders Crown Final. Second foal. Dam of Village Baroque (f, Artsplace). Now 2.

2nd dam

BOLA p, 2, 2:08.3h; 3, 1:59.2; 4, 1:56.4f (\$72,654) 15 wins, by ALBATROSS p, 4, 1:54.3f. From 8 foals, dam of 6 winners (3 1:55 - 6 in 2:00) including-

RAQUE BOGART (h, Falcon Almahurst) p, 2, 1:52.1 (\$453,500) 22 wins. World Champion. At 2, winner Hoosier Futurity, Ohio Breeders Championship, Ohio Sires S. Championship, Ohio Sires S. at Scioto Downs (twice) etc.. At 3, winner Floridian Pace.

VILLAGE BLUES (m, Jate Lobell) p, 2, 1:55; 3, 1:53.3s (\$254,456) 11 wins. As above.

TOUCH OF SILK (m, Falcon Almahurst) p, 2, 1:58f; 3, 1:54.2 (\$147,022) 10 wins. At 2, winner Ohio Sires S. at Scioto Downs. At 3, winner Horseman Futurity, Northfield Grand Circuit S., Ohio Sires S. Championship and Ohio Sires S. at Scioto Downs (3 times). Dam of SMOOTH TALKER p, 3, 1:54.3; 1:52.2 (\$133,722); JATES TOUCH p, 2, 1:57.3; 3, 1:51.2 (\$102,156); VILLA DESTE p, 2, 1:59.3f; 3, 1:55.1f; 1:53.1- '00 (\$90,395); THREADS OF LIFE p, 2, 1:56- '00 etc.

VILLAGE BARON (g, Nihilator) p, 3, 2:00.1f; 4, 1:58.3h (\$31,080) 13 wins.

VILLAGE BARONESS (m, Direct Scooter) p, 2, 2:01.4h; 3, 1:56.3f (\$18,931) 3 wins. Dam of CHANCE PARTNERSHIP p, 3, 1:50.1 (\$201,040).

BISTRO ALMAHURST (m, Amity Chef) p, 2, 2:00f (\$2,973) 1 win. Dam of CHEF SIGN p, 2, 1:55.2s; 3, 1:54; ART DEALER p, 2, 1:59f etc. Valbolacella (m, Laag). Dam of CAMPONELLO p, 3, 1:59.4f; 1:56.4f- '00; SUAVE BOLA p, 2, 1:59.2f; 3, 1:57.2f etc.

3rd dam

MARGAUX p, 2, 2:07f by COLUMBIA GEORGE p, 3, 1:56. From 11 foals, dam of 8 winners (4 in 1:55 - 7 in 1:57) including-

STIENAM (m, Falcon Almahurst) p, 2, 1:55.2; 3, 1:53.4 (\$1,355,474) 17 wins. Dam of PATRIOT STENA p, 2, 1:58.1f; 3, 1:55.4; 4, 1:52.3 (\$178,478); STIENAMS GIRL p, 2, 1:56.3; 3, 1:53.2 (\$102,282) etc.; grandam of STIENAMS PLACE p, 3, 1:50.4 (\$1,402,301); MOVIE STAR LAAG p, 4, 1:51.2 (\$440,854) etc.

JOSS (h,Falcon Almahurst) p, 2, 2:03.3h; 3, 2:01h; 1:54.3 (\$620,843) 39 wins.

LEGGINS (m, Falcon Almahurst) p, 2, 1:59f; 3, 1:54.2 (\$188,882). Dam of NO ESCAPE p, 2, 1:58.4f; 3, 1:54.3s (\$107,794) etc.; grandam of RED STAR ROSCOE p, 1:52.3- '01 (\$255,974); IMPOWERED p, 1:52.3f- '00 (\$219,011) etc.

ARCHIE ALMAHURST (h, Ralph Hanover) p, 2, 2:01.3f; 3, 1:54f (\$184,810) 10 wins. Magnetic Almahurst (m, Nihilator) p, 2, 2:03h; 3, 2:00.3h (\$28,475) 6 wins. Dam of MAGNETIC KILLEAN p, 2, 1:58s; 3, 1:54s; 1:50.2 (\$296,005); MAGNETIZED p, 2, 1:56.2s; 3, 1:55.2f; 1:53.f- '01 (\$186,678) etc.

Breeders Crown
Flamboro Breeders
Northfield Gr. Cir.

Cdn. Breeders Ch.
Freehold S.
Ontario Sires

Stake Engagements
Cane
Historic Series
Simcoe S.

Champlain S.
Int'l Stallion
Western Cdn. P. Derby

Cleveland Classic
Little Brown Jug

PATTERNS OF SUCCESS

A Pattern of Success can be as simple as the position in the pedigree tree of certain ancestors or as complicated as counting up the number of times the pedigree traces back to some obscure ancestor that you consider important. You will hear horsemen talk about Speedy Crown being 3x4 in a pedigree or Adios 4x5 with the numbers referring to the generation where the individual occurs in the pedigree tree. Such patterns often have significance but are by no means failsafe or consistent from sire to sire.

In fact when you get familiar with pedigrees you will find that, just as in handicapping the races, the patterns of success inevitably have exceptions. It is important to remember, however, that success in owning Standardbreds, like all other sports, is a game of percentages and he who plays the percentages in his favour will succeed in the long run.

To play the percentages you have to know them. One key measuring stick to use in assessing pedigrees is the percentage of performers by a sire that earn \$100,000 or more. Typically a successful sire will average 15% or better. Within that statistic, however, are certain matings with a much higher chance of success resulting in what the industry calls a “golden cross”. Close analysis of this golden cross information

shows, however, that such statistics can be misleading as we shall see.

A yearling is much more than just a combination of a sire and a broodmare sire and indeed every sire has a profile, or pattern, in relation to the mares with which he has most success.

Top pacing sires like Artsplace, with several crops racing, all have their patterns of success clearly defined, now that they have had sufficient performers to evaluate. The same is true of the trotting breed as we saw earlier with the example of the offspring of Pine Chip and the presence of Kathleen in the pedigree and with the presence of Noble Victory daughters in mares that are successful with Valley Victory, or the presence of key X-factor mares such as Margaret Parrish. We have also seen the affinity of Garland Lobell for mares that carry both Hatteras and Kathleen maternally.

Donerail's first crop was successful enough to spur some big prices in subsequent sales. His first crop featured Doin The Town 2,1.57.3 (\$190,725) and Bold Dreamer 2,1.57.4 (\$153,366) as his best two-year-old performers in 1997.

Both of these first crop performers showed X-factor connections through Volomite to Oniska and through Margaret Parrish to Manette as indeed did their dams.

			<i>Speedy Somolli</i>	<i>Speedy Crown</i>	Speedy Scot
		<i>Baltic Speed</i>	<i>Somolli</i>	<i>Somolli</i>	Missile Toe
			<i>Carlisle</i>	<i>Stars Pride</i>	Stars Pride
		<i>Valley Victory</i>	<i>Karens Choice</i>	<i>Laurita Hanover</i>	Laurita Hanover
	t,3,1:553m		<i>Nevele Pride</i>	<i>Hickory Pride</i>	Hickory Pride
		<i>Valley Victoria</i>	<i>Exciting Speed</i>	<i>Good Note</i>	Good Note
			<i>Noble Victory</i>	<i>The Intruder</i>	The Intruder
		<i>Donerail</i>	<i>Lou Sidney</i>	<i>My Tip</i>	My Tip
t,2,1:554m	\$703049		<i>Speedster</i>	<i>Stars Pride</i>	Stars Pride
		<i>Speedy Crown</i>	<i>Scotch Love</i>	<i>Thankful</i>	Thankful
			<i>Florican</i>	<i>Speedster</i>	Speedster
		<i>Bedell</i>	<i>Worth A Plenty</i>	<i>Expresson</i>	Expresson
t,3,Q2:062m			<i>Victory Song</i>	<i>Victory Song</i>	Victory Song
		<i>So Blessed</i>	<i>Emilys Pride</i>	<i>Emilys Pride</i>	Emilys Pride
			<i>Rodney</i>	<i>Darnley</i>	Darnley
t,3,1:542m	\$481224	<i>Galophone</i>	<i>Pure Silk</i>	<i>Lucy Abbey</i>	Lucy Abbey
			<i>Sandy Flash</i>	<i>Rodney</i>	Rodney
		<i>B F Coaltown</i>	<i>Calumet Aristocrat</i>	<i>Mimi Hanover</i>	Mimi Hanover
t,3,T2:001m			<i>Phonograph</i>	<i>Victory Song</i>	Victory Song
		<i>Sis Rodney</i>	<i>Carolyn</i>	<i>Selka Scot</i>	Selka Scot
			<i>Spencer Scott</i>	<i>Spud Hanover</i>	Spud Hanover
		<i>Town Keeper</i>	<i>Earls Princess Martha</i>	<i>Florimel</i>	Florimel
			<i>Rodney</i>	<i>Darnley</i>	Darnley
		<i>Dartmouth</i>	<i>Volomite</i>	<i>Sparkle Plenty</i>	Sparkle Plenty
		<i>Wishes Keeper</i>	<i>Betty Mcelwyn</i>	<i>Volomite</i>	Volomite
t,3,2:13m			<i>Volomite</i>	<i>Evensong</i>	Evensong
		<i>Wishing Well</i>	<i>Calumet Anne</i>	<i>Stars Pride</i>	Stars Pride
			<i>Peter Volo</i>	<i>Emily Scott</i>	Emily Scott
			<i>Cita Frisco</i>	<i>Spencer Scott</i>	Spencer Scott
			<i>Mr Mcelwyn</i>	<i>Earls Princess Martha</i>	Earls Princess Martha
			<i>Nelson Dillon</i>	<i>Volomite</i>	Volomite
			<i>Taffolet</i>	<i>Protect</i>	Protect
			<i>Scotland</i>	<i>Mignon</i>	Mignon
			<i>May Spencer</i>	<i>Peter Volo</i>	Peter Volo
			<i>Volomite</i>	<i>Cita Frisco</i>	Cita Frisco
			<i>Alma Lee</i>	<i>Mr Mcelwyn</i>	Mr Mcelwyn
			<i>Lee Tide</i>	<i>Calumet Anne</i>	Calumet Anne
			<i>Petrex</i>	<i>Peter Volo</i>	Peter Volo
			<i>Belwin</i>	<i>Cita Frisco</i>	Cita Frisco
			<i>Sienna</i>	<i>Nelson Dillon</i>	Nelson Dillon
				<i>Taffolet</i>	Taffolet
				<i>Scotland</i>	Scotland
				<i>May Spencer</i>	May Spencer
				<i>Volomite</i>	Volomite
				<i>Mystic</i>	Mystic
				<i>Peter Volo</i>	Peter Volo
				<i>Cita Frisco</i>	Cita Frisco
				<i>Peter The Brewer</i>	Peter The Brewer
				<i>Alma Lee</i>	Alma Lee
				<i>Lee Tide</i>	Lee Tide
				<i>Petrex</i>	Petrex
				<i>Belwin</i>	Belwin
				<i>Sienna</i>	Sienna

The dam of Doin The Town has a double copy to **Margaret Parrish** and a double to Oniska through **Volomite**
The dam of Donerail has a trace to **Margaret Parrish**, a double to Oniska and a trace through **Volomite**

Was this a trend? Indeed it was, as 17 of the top 20 by Donerail to date carry Margaret Parrish in the mares and 10 of these are from mares that had double copies to Margaret Parrish including Dr Ronerail from the class of 1997 who is the top earner from that class with over \$700,000 and counting. Dr Ronerail may well have found his maternal strength from another source as his dam is also a double copy to Hatteras with four separate maternal traces through Dean Hanover.

The best performer by Donerail to date is Spellbound Hanover, a winner of over \$960,000, and knowing that the early pattern of success for Donerail was to have a mare that showed doubles to Oniska and Margaret Parrish would have led you right to her stall door at the New Jersey Classic sale.

Her dam was by Super Bowl, with Protector and his dam Margaret Parrish maternally. Her third dam was by B F Coaltown who carries the same trace to Margaret Parrish through Rodney. Donerail, himself, has a third dam by Rodney thus making Spellbound Hanover a double copy to the same source as the double copy in her own dam

Super Bowl's second dam is by Volomite, a source of Oniska, and the next three dams also carry Oniska, one through a Volomite trace and the others through Speedy Crown and Stars Pride who go to Oniska

through San Francisco maternally. Donerail also has Speedy Crown, Stars Pride and a Volomite dam maternally thus making Spellbound Hanover a double copy to Oniska three times over.

This pattern of success for Donerail is not 100% as you might expect, but even the exceptions can become part of the pattern since the three out of the top twenty that are different are out of Joie De Vie and Supergill mares that are the only ones to show doubles to Adioo with no Margaret Parrish maternally.

The initial crop of Muscles Yankee raced in 2002 and they quickly established the profile of their sire, as did the first crop of Conway Hall.

Eight of the top ten by Muscles Yankee are out of mares by Stars Pride line sires and the two others have Super Bowl second dams. All ten have dams with a double copy to Manette and all ten have Margaret Parrish maternally. Nine of the ten have dams that are doubles to Oniska as well.

The top five Conway Hall offspring, and ten of the top twelve have dams with double Oniska. Ten of twelve have a first or second dam by Speedy Crown or a son of Speedy Crown.

As more top performers come along the patterns will firm up and become more distinct.

			<i>Speedy Somolli</i>	<i>Speedy Crown</i>	Speedy Scot
		<i>Baltic Speed</i>	<i>Somolli</i>	<i>Somolli</i>	Missile Toe
			<i>Carlisle</i>	<i>Carlisle</i>	Stars Pride
			<i>Karens Choice</i>	<i>Karens Choice</i>	Laurita Hanover
		<i>Valley Victory</i>	<i>Nevele Pride</i>	<i>Nevele Pride</i>	Hickory Pride
	t,3,1:553m		<i>Exciting Speed</i>	<i>Exciting Speed</i>	Good Note
		<i>Valley Victoria</i>	<i>Noble Victory</i>	<i>Noble Victory</i>	The Intruder
			<i>Lou Sidney</i>	<i>Lou Sidney</i>	My Tip
			<i>Speedster</i>	<i>Speedster</i>	Stars Pride
			<i>Scotch Love</i>	<i>Scotch Love</i>	Thankful
			<i>Florican</i>	<i>Florican</i>	Speedster
			<i>Worth A Plenty</i>	<i>Worth A Plenty</i>	Expression
			<i>Victory Song</i>	<i>Victory Song</i>	Victory Song
			<i>Emilys Pride</i>	<i>Emilys Pride</i>	Emilys Pride
			<i>Rodney</i>	<i>Rodney</i>	Darnley
			<i>Pure Silk</i>	<i>Pure Silk</i>	Lucy Abbey
			<i>Volomite</i>	<i>Volomite</i>	Rodney
			<i>Warwell Worthy</i>	<i>Warwell Worthy</i>	Mimi Hanover
			<i>Mr Mcelwyn</i>	<i>Mr Mcelwyn</i>	Victory Song
			<i>Dillcisco</i>	<i>Dillcisco</i>	Selka Scot
			<i>Spencer Scott</i>	<i>Spencer Scott</i>	Spud Hanover
			<i>Earls Princess Martha</i>	<i>Earls Princess Martha</i>	Florimel
			<i>Volomite</i>	<i>Volomite</i>	Darnley
			<i>Cita Frisco</i>	<i>Cita Frisco</i>	Sparkle Plenty
			<i>Peter Volo</i>	<i>Peter Volo</i>	Volomite
			<i>Cita Frisco</i>	<i>Cita Frisco</i>	Evensong
			<i>Peter The Brewer</i>	<i>Peter The Brewer</i>	Stars Pride
			<i>Alma Lee</i>	<i>Alma Lee</i>	Emily Scott
			<i>Guy Axworthy</i>	<i>Guy Axworthy</i>	Spencer Scott
			<i>Widow Maggie</i>	<i>Widow Maggie</i>	Earls Princess Martha
			<i>San Francisco</i>	<i>San Francisco</i>	Emily
			<i>Dilworthy</i>	<i>Dilworthy</i>	Volo
			<i>Scotland</i>	<i>Scotland</i>	Cita Frisco
			<i>May Spencer</i>	<i>May Spencer</i>	Peter
			<i>Protector</i>	<i>Protector</i>	Volo
			<i>Mignon</i>	<i>Mignon</i>	Clever
			<i>Peter Volo</i>	<i>Peter Volo</i>	Hanover
			<i>Cita Frisco</i>	<i>Cita Frisco</i>	Santos
			<i>Peter The Brewer</i>	<i>Peter The Brewer</i>	Express
			<i>Rodney</i>	<i>Rodney</i>	Rodney
			<i>Mimi Hanover</i>	<i>Mimi Hanover</i>	Mimi
			<i>Victory Song</i>	<i>Victory Song</i>	Victory
			<i>Selka Scot</i>	<i>Selka Scot</i>	Song
			<i>Spud Hanover</i>	<i>Spud Hanover</i>	Emilys
			<i>Florimel</i>	<i>Florimel</i>	Pride
			<i>Darnley</i>	<i>Darnley</i>	Darnley
			<i>Sparkle Plenty</i>	<i>Sparkle Plenty</i>	Lucy
			<i>Bill Gallon</i>	<i>Bill Gallon</i>	Abbey
			<i>Carophone</i>	<i>Carophone</i>	Rodney
			<i>Rodney</i>	<i>Rodney</i>	Poplar
			<i>Sis Rodney</i>	<i>Sis Rodney</i>	Sis
			<i>Stars Pride</i>	<i>Stars Pride</i>	Worthy
			<i>Gay Hill</i>	<i>Gay Hill</i>	Boy
					Stardrift
					Scotland
					Gay Sonata

The dam of Spellbound Hanover has a double copy to **Margaret Parrish** and traces to **Oniska** through Stars Pride, Darnley and Volomite
The dam of Donerail has a trace to **Margaret Parrish** and traces to **Oniska** through Stars Pride, Darnley and Volomite

But what about new sires without any performers to date? While it is somewhat more of a guessing game it is, nevertheless, worthwhile to play whatever percentages you can find by looking at the offspring of similar sires, especially those with similar maternal identities.

A good example is the first crop of pacing sire Rustler Hanover, whose first yearlings were enthusiastically greeted at the yearling sales. He is from a mare by Direct Scooter just like Pacific Rocket and Village Jiffy. These two sires have had their best performers from mares by Albatross line sires or with second dams with Albatross blood. Knowing this means that you may initially want to consider only those Rustler Hanover yearlings that are similarly bred, that is if you want to play the percentages. At the end of his first season with offspring racing it is noteworthy that of the nine that have made over \$30,000 to date two have Albatross line dams and three have Albatross line second dams.

What is more interesting though is the presence of one or other of the mares Helen Hanover and Margaret Parrish maternally in 16 of the top 23 performers to date including all of the top nine money earners. Is that significant? – I would say yes, especially when you consider that Helen Hanover is also part of the maternal identity of Rustler Hanover through the mare Golden Miss by Ensign Hanover. In fact the best two

year old performer by Rustler Hanover, Mt Vernon Hanover, is from a mare that is a double copy to Helen Hanover through her sire Cam Fella, and Overtrick, sire of her second dam.

Clearly buying a yearling based on the attractiveness of a sire alone is not enough. If all there was to buying a yearling was selecting a fashionable sire then why do we need a full catalog page listing the pedigree and accomplishments of the family? Pedigree is not everything but it is everything you need to point you on the road to success.

In today's world of computers, high-speed communications and the Internet, the owners of Standardbreds have a wealth of information at their fingertips upon which to make better, smarter decisions. The Internet provides on line access through the breed registries to a myriad of information that was barely accessible ten years ago other than in book form.

Like any other serious investment your chances of success are greatly improved when you understand the fundamentals of the business and make use of all the tools and information at your disposal to improve your percentages.

The most important percentage in my mind, however, is the first 18%, the right pedigree.

			<i>Oil Burner</i>	<i>Most Happy Fella</i>	Meadow Skipper
		<i>No Nukes</i>	<i>Dottie Shadow</i>	<i>Laughing Girl</i>	Laughing Girl
			<i>Overtrick</i>	<i>Shadow Wave</i>	Shadow Wave
			<i>Gidget Lobell</i>	<i>Diana Streak</i>	Diana Streak
			<i>Albatross</i>	<i>Solicitor</i>	Solicitor
		<i>Western Hanover</i>	<i>Gogo Playmate</i>	<i>Overbid</i>	Overbid
	p,3,1:504m		<i>Meadow Skipper</i>	<i>Tar Heel</i>	Tar Heel
			<i>Voodoo Hanover</i>	<i>Gogo Playtime</i>	Gogo Playtime
			<i>Wendymae Hanover</i>	<i>Dale Frost</i>	Dale Frost
			<i>Wendy Sue Hanover</i>	<i>Countess Vivian</i>	Countess Vivian
		<i>Rustler Hanover</i>	<i>Best Of All</i>	<i>Dancer Hanover</i>	Dancer Hanover
	p,3,1:51m	\$971638	<i>Wendy Hanover</i>	<i>Vibrant Hanover</i>	Vibrant Hanover
			<i>Sampson Direct</i>	<i>Good Time</i>	Good Time
		<i>Direct Scooter</i>	<i>Sampson Hanover</i>	<i>Besta Hanover</i>	Besta Hanover
			<i>Dottie Rosecroft</i>	<i>Bullet Hanover</i>	Bullet Hanover
		<i>Rich N Elegant</i>	<i>Noble Claire</i>	<i>Wayblaze</i>	Wayblaze
	p,3,1:564m		<i>Noble Victory</i>	<i>Volomite</i>	Volomite
			<i>Scotch Claire</i>	<i>Irene Hanover 1930</i>	Irene Hanover 1930
		<i>Proven Perfect</i>	<i>Silent Majority</i>	<i>Billy Direct</i>	Billy Direct
			<i>Bergdorf</i>	<i>Beams Hanover</i>	Beams Hanover
			<i>Shadow Wave</i>	<i>Victory Song</i>	Victory Song
			<i>Golden Miss</i>	<i>Emilys Pride</i>	Emilys Pride
			<i>Dale Frost</i>	<i>Scotland</i>	Scotland
		<i>Mt Vernon Hanover</i>	<i>Countess Vivian</i>	<i>Abbey Claire</i>	Abbey Claire
	p,2,1:52h	\$137855	<i>Good Time</i>	<i>Henry T Adios</i>	Henry T Adios
			<i>Maxines Dream</i>	<i>Hobby Horse Tar</i>	Hobby Horse Tar
			<i>Adios</i>	<i>Duane Hanover</i>	Duane Hanover
		<i>Cam Fella</i>	<i>Bret Hanover</i>	<i>Princess Best</i>	Princess Best
	p,4,1:531m		<i>Brenna Hanover</i>	<i>Adios</i>	Adios
		<i>Nan Cam</i>	<i>Dale Frost</i>	<i>Shadow Grattan</i>	Shadow Grattan
			<i>Mynah Hanover</i>	<i>Ensign Hanover</i>	Ensign Hanover
			<i>Poplar Byrd</i>	<i>Betty Mahone</i>	Betty Mahone
		<i>Mt Penn</i>	<i>Evalina Hanover</i>	<i>Volomite</i>	Volomite
	p,4,T1:533m	\$78495	<i>Tar Heel</i>	<i>Ann Vonian</i>	Ann Vonian
			<i>Prudence Adios</i>	<i>Billy Direct</i>	Billy Direct
		<i>Keystone Ore</i>	<i>Solicitor</i>	<i>Adieu</i>	Adieu
			<i>Overbid</i>	<i>Billy Direct</i>	Billy Direct
		<i>Keystone Shore</i>	<i>Adios</i>	<i>Leta Long</i>	Leta Long
	p,4,1:551m			<i>Adios</i>	Adios
				<i>Prudence Hanover</i>	Prudence Hanover
		<i>Keystone Sparkle</i>		<i>Kings Counsel</i>	Kings Counsel
				<i>Jane Reynolds</i>	Jane Reynolds
				<i>Hal Dale</i>	Hal Dale
				<i>Barbara Direct</i>	Barbara Direct
				<i>Hal Dale</i>	Hal Dale
				<i>Adioo Volo</i>	Adioo Volo
				<i>Norris Hanover</i>	Norris Hanover
				<i>Wantawin</i>	Wantawin

The dam of Mt Vernon Hanover has six separate traces to **Adioo** including a double copy to Helen Hanover
The first three dams are all double copies to **Adioo**. The dam of Rustler Hanover also carries Helen Hanover.

THE GOLDEN CROSS

It is a favorite saying of many knowledgeable breeders that “*the best sires of yesterday are the best broodmare sires of today*”. This makes eminently good sense since it is a natural extension of a similar vein in the phrase “*the best race horses make the best sires*”. There are, of course, exceptions but again the percentages of breeding favor those who follow these mantras in general but there is a caveat.

The broodmare sire, alone, does not make the mare any more than the sire, alone, can make a top performer. Nor is it wise to assume that the sire needs only a top broodmare sire to work with, as the followers of the “golden cross” would have us believe. I will discuss later the case of Gallo Blue Chip which is a classic example of an apparent golden cross that is skewed dramatically by the fact that he has earned many times more than all of the others, carrying his cross of Magical Mike to an Albatross mare, collectively, have earned. There are many similar situations.

As of this writing there have been 19 performers by Cambest from Abercrombie mares. I don’t know how many times this combination has been tried and how many of such matings failed to race but there must surely be quite a few since Abercrombie and Cambest both stood in Kentucky.

The unique thing about all of the Abercrombie mares that have produced a \$100,000 performer by Cambest is that they all carried a double to Adioo, once through Abercrombie and another from the maternal lines, usually through Bret Hanover or Adios himself or Dillon Axworthy deeper in the pedigree.

The top ones in order of earnings are:

Blissfull Hall’s third dam is by Bret Hanover
Color Me Best’s third dam is by Adios.

Bestaverde has a third dam by Adios

Tajma Hall has a Bret Hanover second dam

Heifetz Hanover’s second dam is by Bret Hanover.

Universal Dream has a second dam by Adios

Happy To Be Best’s third dam is by Queens Adios who carries no Adioo but the maternal line of Happy To Be Best carries Dillon Axworthy through Miss Bertha Dillon.

Clearly the pattern of success for Cambest with Abercrombie mares requires a double Adioo mare. This is not, however, unique to Cambest, but rather it is unique to Abercrombie as a broodmare sire and looking at the pedigree of Abercrombie and his success as a sire you can see why.

Right: The pedigree of Blissfull Hall

			<i>Meadow Skipper</i>	<i>Dale Frost</i>	Hal Dale
			<i>Most Happy Fella</i>	<i>Countess Vivian</i>	Galloway
			<i>Laughing Girl</i>	<i>Good Time</i>	Kings Counsel
		<i>Cam Fella</i>	<i>Bret Hanover</i>	<i>Maxines Dream</i>	Filly Direct
	p,4,1:531m			<i>Adios</i>	Hal Dale
		<i>Nan Cam</i>	<i>Nan Frost</i>	<i>Brenna Hanover</i>	On Time
				<i>Dale Frost</i>	Knight Dream
				<i>Mynah Hanover</i>	Maxine Abbe
				<i>Volomite</i>	Hal Dale
				<i>Warwell Worthy</i>	Adioo Volo
				<i>Scotland</i>	Tar Heel
				<i>Spinster</i>	Beryl Hanover
				<i>Adios</i>	Hal Dale
				<i>Miss Creedabelle</i>	Galloway
				<i>Overtrick</i>	Ensign Hanover
				<i>Preview Hanover</i>	Betty Mahone
				<i>Adios</i>	Peter Volo
				<i>Greer Hanover</i>	Cita Frisco
				<i>Tar Heel</i>	Peter The Brewer
				<i>Wobby Horse Tar</i>	Alma Lee
				<i>Wilellen</i>	Peter Scott
				<i>Knight Dream</i>	Roya Mckinney
				<i>Dorsh Hanover</i>	Spencer
				<i>The Widower</i>	Minnetonka
				<i>Princess Chief</i>	Hal Dale
				<i>Hal Dale</i>	Adioo Volo
				<i>Galloway</i>	Jimmy Creed
				<i>Kings Counsel</i>	Belle Grattan
				<i>Filly Direct</i>	Solicitor
				<i>Adios</i>	Overbid
				<i>Gene Abbe</i>	Tar Heel
				<i>Merrie Mia</i>	Poppy Hanover
					Hal Dale
					Adioo Volo
					Nibble Hanover
					Veda Hanover
					Billy Direct
					Leta Long
					Wilmington
					Willola
					Nibble Hanover
					Lydia Knight
					Dillon Axworthy
					Great Medium
					Abbedale
					Widow Grattan
					Chief Abbedale
					The Gay Princess
					Abbedale
					Margaret Hal
					Raider
					Bethel
					Volomite
					Margaret Spangler
					Billy Direct
					Calumet Edna
					Hal Dale
					Adioo Volo
					Tar Heel
					Beryl Hanover
					Bert Abbe
					Rose Marie
					Good Time
					Billie Burke

Blissfull Hall

p,3,1:492m \$1468648

Abercrombie

p,4,1:53m

Hundred Kisses

p,4,1:524m \$143291

Dozen Kisses

p,3,1:553q

Meadow Skipper

Countess Vivian

Bret Hanover

Debutante Wick

The dam of Blissfull Hall is a double copy to **Adioo** for the first time in the family.
The dam of Cambest carries Helen Hanover, inbred to **Adioo**, maternally through **Overtrick**

The maternal family of Abercrombie is a classic example of what Harrison meant when he wrote, in his authoritative chapter on bloodlines and breeding in the original USTA's book Care And Training Of The Trotter and Pacer, that:

" All the foundation sires of the breed were relatively short bred maternally in the sense that none of the female families that produced them ever established lasting maternal lines of their own".

For nine generations beginning with Rosa by Limerick Boy, there was not a single performer that approached \$100,000 in earnings until Ocean Reef by Duane Hanover who earned a little over \$97,000. He was the full brother to Bergdorf, dam of Abercrombie. There must have been something in Duane Hanover's bloodlines that triggered this sudden transformation of a line that was, up till then, barely surviving.

Up to this point in the maternal identity of the family of Rosa, her grand daughter Gay Phyllis had picked up Pilot Jr. through his daughter Waterwitch and then her daughter by Peter The Great, Princess Pete, picked up a similar trace to become a double copy to Pilot Jr. Mambrino Patchen and American Star were added to the family portfolio via Crispin and Guy Wilkes two generations later. Then it was two more generations to Princess Best by The Widower who added another trace to American Star. To this point there was no sign

of Miss Russell anywhere but Duane Hanover changed this in a hurry as he added the magic ingredient of Miss Russell to the mix by way of Adioo.

Duane Hanover's dam was Dorsh Hanover by Dillon Axworthy who is one of the primary sources of Adioo; his second dam was by Peter The Great who carries Pilot Jr, his third dam was by Red Medium who carried American Star and his fourth dam traces back to Mambrino Patchen. The trigger was ready to be pulled in the form of Bergdorf to produce something special.

That lone trace to Adioo, occurring as it does so close in to Bergdorf, has subsequently been the key to the success of Abercrombie particularly as a broodmare sire. His top credit is Mach Three whose maternal succession is Abercrombie – Most Happy Fella - Bret Hanover – Shadow Wave. The three maternal sires all carry Miss Russell and Bret Hanover and Shadow Wave carry Adioo in addition. His top filly is Bunny Lake whose sire Precious Bunny has a dam and a second dam that are doubles to Adioo. His third best is Village Connection whose dam is a double copy to Adioo and carries Helen Hanover. The rest of his ten top broodmare credits show the same or similar patterns involving Adioo.

*Right: Abercrombie is a sire of sires and of broodmares.
Source: Times In Harness – 2002 Almanac*



Another classic example of a perceived “golden cross” that is only golden in the right circumstances is that of Abercrombie to Albatross mares. Abercrombie’s best performers include Artsplace, Life Sign, Albert Albert, and Crouch, all from Albatross mares. But if you went to Abercrombie on the basis of this apparent success with just any Albatross mare you may be very disappointed with the outcome unless of course the second dam of your Albatross mare is by Knight Dream or Duane Hanover, which is the pattern for Abercrombie’s top four from Albatross mares.

By now we are getting a sense of how important the broodmare as a total package is and how the broodmare sire is only part, although an important part, of the maternal identity of any one mare. The Standardbred of today is truly a “sum” of its parts and not just “some” of its parts.

Occasionally you will see top performers by a sire that are so much better than any others by the same sire or that have the same sire – broodmare sire combination. Such is very definitely the case for Gallo Blue Chip.

Gallo Blue Chip has earned over \$4 million and is the richest performer from an Albatross mare and this makes Magical Mike, when crossed with Albatross mares, the highest in average earnings per performer at \$127,000 on the USTA golden cross list.

There are, however, over 40 horses, other than Gallo Blue Chip with the Magical Mike – Albatross cross who collectively have made an average of \$30,000. Indeed of the ones on the list as of this writing only five have made over \$100,000 for a percentage of 12.2% versus the average for all sires with Albatross mares of 18.9%. Clearly Gallo Blue Chip was a unique individual but what is it in his pedigree that makes him so?

The key lies in the combination of sire lines that make up the full pedigree of Camatross, the maternal identity of the dam of Gallo Blue Chip. The next best to Gallo Blue Chip is Nikes Magic and her maternal line, like that of Gallo Blue Chip traces to Miss Bertha Dillon by Dillon Axworthy. They consequently both have second dams that are doubles to Adioo. Gallo Blue Chip, however, has a dam that is a double copy to Oniska, the first time Oniska has been doubled up in his pedigree, as indeed was the case with the double to Adioo in his second dam. He also carries a double to Peter The Great and Pilot Jr. in his third dam. Add to this a fourth dam carrying Manette and a fifth dam with American Star and you can see the buildup of the X-factor to a point where something special was going to happen.

The only performers on the list that carry three consecutive double ups of the X-factor maternally are Gallo’s two full sisters who raced, although not up to

his standards. The future of these mares as broodmares may be another question, however, as they double up Adioo again and also add a double to Kathleen to their maternal identity.

Critics will be quick to point to the failure of Gallo's two sisters to race as well as he did, and perhaps rightly so. I am reminded of the words of Tesio, but cannot give the exact quotation, when he said that if you think you have the perfect match you can expect to get a champion once every four times or 25% of the time. Another saying that is worth repeating is the one about great expectations destroying great pedigrees. This relates to the phenomenon of trainers overtaxing the brothers and sisters of previous top horses, because they expect them to be as good or better, rather than letting them make the races within their own schedule and abilities.

Camatross was bred to an assortment of sires and produced four other \$100,000 winners prior to Gallo Blue Chip who was her tenth foal. The other breedings to Magical Mike were the ninth, and three foals subsequent to Gallo Blue Chip. It will be interesting to watch for her fifth foal by Magical Mike called Cayuga Blue Chip as he begins his racing career in 2003 or perhaps it will be one of her next three from the same breeding, after all one in four and two in eight are both 25%.

Below: Peace Corps was also a four million dollar winner but unlike Gallo Blue Chip she was a first foal. She did, however, carry a double copy to Margaret Parrish. Source : Hoofbeats



BREEDING TO TYPE

One of the objectives of breeding is to establish the “type” for the breed. Since the Standardbred breed as such is only 130 years old, and considering the variety of breed types that contributed to the genetic pool, it is small wonder that the Standardbred is far from standard when it comes to type.

In discussing the topic with breeders there is a general appreciation for stallions that will “*stamp their offspring*” and many consider this a valuable attribute. Insofar as it helps in the fixing of the Standardbred type that may be true but what is the ideal type we are striving to produce?. This is where the ideas begin to diverge. The problem lies partly in the fact that the Standardbred involves at least two separate types, the trotter and the pacer, and what is a good type for one may not suit the different physical or should I say mechanical requirements of the other.

The gait of the trotter requires “*more room below*” as one elderly breeder once told me. By that he meant longer legs and a longer back, presumably to minimize interference in the diagonal gait that is the primary cause of breaking stride. Pacers, on the other hand, have a more compact type with an emphasis on strength and speed over mechanics. An even temperament is a major consideration in a trotter but

is not as critical in a pacer whose gait is controlled by hopples. These, however, are general descriptive terms that by no means cover the range of physical characteristics that are considered as part of the breed.

In any discussion of breed type it is important to distinguish between the characteristics you can see, the physical, from those you cannot, the metaphysical. The former are straightforward and include the many aspects of what is called conformation. It is an established practice in breeding to breed away from perceived faults that you can see in an animal such as large or small size, short legs, long pasterns, and even coat color by going to a sire that offers the opposite in the hope that the problem will average out.

An important consideration in gaited breeds such as trotters and pacers is of course the ability to trot or pace with a certain degree of ease and efficiency of motion. You might even include disposition or manners, which are attributes that are visually evident although not strictly physical in nature.

The metaphysical side of breeding is not as controllable since it involves both the mental and internal workings of the horse, factors that are perhaps more kindred to the “genotype” rather than the physical type. Genetic variation in an animal such as the horse is much more extreme than in the peas and

fleas that geneticists experiment with in the laboratory, they also have a much longer generation span or turnover. Breeding out the flaws in the genotype or breeding in the benefits of a superior gene is not an overnight proposition that can be achieved as readily as the correction of physical faults which after all can be ultimately be corrected by culling the mare or avoided by refusing to patronize flawed sires.

The desire to compete and win is, to my mind, an inherited trait that is metaphysical in nature. Intelligence and willingness to learn are other metaphysical attributes that can occur sporadically in the offspring of any one sire and dam. As Leland Stanford set out to do when breeding Thoroughbred mares to Electioneer "*the speed and gameness of the one and the coolness and endurance of the other*" were the metaphysical attributes he hoped to fix in the trotting breed.

The extent to which these are part of the genotype, or indeed part of the environment in which horses are raised or trained, is subject to debate. We know that environmental change can indeed force animals to adapt their type to fit the changing circumstances. The evolution of the Canadian horse into a smaller yet hardier breed than its ancestors from France is testimony to that process.

In many ways the ultimate breed type has the components of a fast car. You want the best possible structure (conformation) with the least amount of drag or resistance (gait) and then you need the most powerful motor you can put under the hood (heart and lung function). A successful pedigree is one that recognizes the contributions of both sire and dam. From the sire lines come the physical attributes of the foal as demonstrated by the racing prowess of the sires involved. Speed, conformation and gait are essential characteristics in a top sire in today's world along with a demonstrated ability to win at the top levels of the sport

From the dam, in addition to complementing the contribution of the sire with respect to conformation, it would appear, based on the evidence presented earlier in this book, that there may be a mysterious genetic component called "*heart*" that lies dormant until it finds a matching component in the maternal lines of the sire. Whether this "*heart*" component is based on a physical difference in heart size due to genetic mutation or just simply a fortunate combining of the metaphysical attributes of courage and desire to win is a question we cannot answer in any certain terms but the pedigree is the only road map we have to the answer.

Those pedigree patterns that have been successful in the past, and have produced the top performers with speed and courage, can and will repeat themselves.

SIRE LINES – THE PATERNAL IDENTITY

The sire lines in North America are dominated by the descendants of Hambletonian. It has been interesting to note the contribution of other breeds to the maternal side of the Standardbred breed. The twists and turns in the evolution of the Standardbred are indeed many and varied. The pedigree of today's modern Standardbred is a history book of the sport and the book would be incomplete without some discussion of the paternal identity, the contribution of sire lines.

While there have been, over the years, many sire lines develop from the earliest progenitors of the sport these have evolved into but four of latter day importance in North America.

The principle sire lines are The Abbe whose descendants through grandsons Gene Abbe and Hal Dale include Big Towner, Meadow Skipper, and Adios and their legacy of fine sires; Peter The Great primarily through Peter Scott and Peter Volo who are responsible for the Speedster and Volomite lines; Axworthy commonly through Guy Axworthy and his lesser known compatriot Dillon Axworthy, and Direct as typified by Tar Heel.

There are other minor sire lines such as Grattan, San Francisco and Single G, like Axworthy descended from

George Wilkes, which have almost disappeared from modern pedigrees but frequently show up in older ones.

The four main sire lines have all descended from a horse called Hambletonian, a great grandson of the imported English Thoroughbred Messenger. While Hambletonian was not the only trotting sire of his day in the mid 1800's he was by far the most dominant. He is responsible for four sons, George Wilkes, Electioneer, Happy Medium and Dictator who in turn have produced the four principal lines of modern day breeding in North America. A fifth son of Hambletonian, Strathmore, has extended his line to Australia/New Zealand where he is the foundation sire for the Charles Derby line. His influence in North America has been significant, however, since he is the great grandsire of Adioo Guy, sire of the dam of Adios.

Hambletonian by Abdallah

George Wilkes
William L
Axtell
Axworthy
Electioneer
Chimes
The Abbe
Happy Medium
Pilot Medium
Peter The Great
Dictator
Direct
Strathmore
Steinway
Charles Derby

		<i>Chimes</i>	<i>Electioneer</i>	Hambletonian
		<i>The Abbe</i>	<i>Beautiful Bells</i>	Green Mountain Maid
			<i>Mambrino King</i>	The Moor
		<i>Abbedale</i>	<i>Nettie Murphy</i>	Minnehaha
			<i>Expedition</i>	Mambrino Patchen
		<i>Daisydale D</i>	<i>Aline</i>	Edwin Forrest Mare
			<i>Pactolus</i>	Hamlin Patchen
		<i>Hal Dale</i>	<i>Flaxy</i>	By A Son Of Kentucky Whip
p,6,2:023m	\$595		<i>Tom Hal Jr</i>	Electioneer
		<i>Argot Hal</i>	<i>Lizzie</i>	Lady Russell
		<i>Margaret Hal</i>	<i>Duplex</i>	Allie West
			<i>Sally Ward</i>	Coquette
		<i>Margaret Polk</i>	<i>Ashland Wilkes</i>	Patronage
			<i>Dame Wood</i>	Buda
Adios			<i>Tom Hal Jr</i>	Bourbon Wilkes
p,T1:574m	\$33329	<i>Guy Dillon</i>	<i>Dolly</i>	Kit By Clark Chief
			<i>Sidney</i>	Kittrells Tom Hal
		<i>Adioo Guy</i>	<i>Venus</i>	Julia Johnson
			<i>Guy Wilkes</i>	John Netherland
		<i>Adioo</i>	<i>By By</i>	Blackie
			<i>George Wilkes</i>	Ensign
		<i>Adioo Volo</i>	<i>Lady Bunker</i>	Favorite
			<i>Nutwood</i>	Doctor Herr
		<i>Peter Volo</i>	<i>Rapidan</i>	Jenny Preston
			<i>Pilot Medium</i>	Red Wilkes
		<i>Sigrid Volo</i>	<i>Santos</i>	Daisy B
			<i>Nervolo</i>	Wedgewood
		<i>Polly Parrot</i>	<i>Josephine Knight</i>	Fancy
			<i>Jersey B B</i>	Kittrells Tom Hal
			<i>Blue Belle</i>	Julia Johnson
			<i>Chitwood</i>	Pat Malone
			<i>Norretta</i>	Unknown
				Santa Claus
				Sweetness
				Captain Webster
				Harry Clay Mare
				George Wilkes
				Lady Bunker
				Nutwood
				Rapidan
				Hambletonian
				Dolly Spanker
				Mambrino Patchen
				Lady Dunn
				Belmont
				Miss Russell
				Dictator
				Madam Headley
				Happy Medium
				Tackey
				Grand Sentinel
				Shadow
				Colbert
				Nelly D
				Betterton
				Mambrino Beauty
				George Wilkes
				Lady Patchen
				Bartholomew Wilkes
				Mamie Foster
				Nutwood
				Maggie Wilkes
				Norris
				Maggie Yeazer

Adios has nine lines maternally to **American Star**, **Mambrino Patchen**, and **Pilot Jr** as well as **Miss Russell** through **Adioo**. He also has a mare by **Diomed** maternally through Maggie Wilkes.

THE ABBE is a grandson of Electioneer, and he has established through two of his sons, Bert Abbe and Abbedale, a dominant place in pacing pedigrees. An interesting fact about Abbedale is that his son Hal Dale, sire of the great Adios, is from a mare that traces to Tom Hal, a line of Canadian pacing breeds that is also responsible for the likes of Star Pointer, the first sub 2.00 pacer. The Hal line died out in North America in the battle with the sons of Hambletonian but contributed greatly to the maternal lines of both the Abbe and Direct pacing lines. The Hal line still exists down under with the descendants of the exported Logan Pointer, a son of Star Pointer, prominent in New Zealand breeding.

The Bert Abbe line has been slow to evolve but appears poised to expand dramatically with the influence of Big Towner and his sons currently at stud.

The line through Abbedale on the other hand has grown quickly into a number of significant siring lines. Grandsons Dale Frost and Adios, both sons of Hal Dale, are responsible for the feats of super sires such as Meadow Skipper, Albatross and Most Happy Fella on the one hand and Bret Hanover and Abercrombie on the other hand. All of these lines continue to extend for the time being.

Good Time, another son of Hal Dale has failed to establish a sire line but is responsible for top broodmare sires in Race Time and Best of All.

The Abbe by Chimes



Right: The Abbe established a sire line that is responsible for almost all of the pacers in North America. Source: Times In Harness – 2002 Almanac



PETER THE GREAT, the major trotting sire line of today, but also responsible for a continuing sire line of pacers, is a great grand son of Hambletonian through Happy Medium and Pilot Medium.

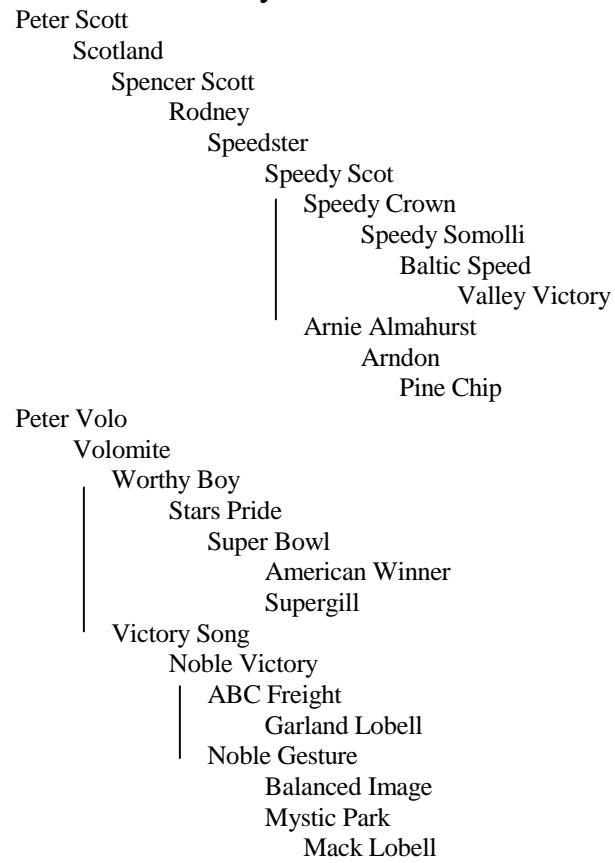
On the trotting side Peter The Great has seen his bloodlines split into three dominant strains. The Peter Scott line has progressed to a modern day lineup that includes such standout sires as Speedy Crown, Arndon and Valley Victory, each currently with their own sire branches.

These sires have prospered as a result of being bred to mares from the Peter Volo line, which has been split into two significant branches through Worthy Boy and Victory Song, both sons of Volomite. Worthy Boy is enjoying fame through his grandson Super Bowl and his sons as well as through two other grandsons in Nevele Pride and Hickory Pride, while Victory Song's legacy appears to rest with the sons of Balanced Image, Garland Lobell and the exported Mack Lobell.

It is interesting that at this same juncture of the split of the Peter Volo into two separate trotting lines we have the emergence of the Peter The Great legacy of pacing sires, also sons of Volomite. Noteworthy pacing sires of the Peter Volo branch, which is the Peter The Great line most common in pacing pedigrees, descend from the Volomite sons Kings Counsel, Poplar Byrd and Sampson Hanover who are responsible for the likes of

Overtrick, Bye Bye Byrd and Direct Scooter respectively. Peter Scott had a pacing legacy also but it ended with his great grandson Overcall, half brother to Overtrick. The Peter Volo line continues for the time being through Direct Scooter and his World Champion son Matts Scooter.

Peter The Great by Pilot Medium



*Right: Peter The Great is the premier trotting sire line in North America.
Source: The American Trotter*



DIRECT is a feature in many of our top pacing broodmare sires primarily due to the influence of Billy Direct and his son Tar Heel. Bret Hanover and Bye Bye Byrd show Billy Direct through their dams, as do Albatross and Meadow Skipper in their second dams.

Direct is a grandson of Hambletonian through Dictator and descends through Direct Hal, Walter Direct, Napoleon Direct and Billy Direct to the once mighty Tar Heel.

He was a small horse with a compact and bulky body that belied the speed he passed to his sons on the racetrack. Hervey was struck by his seeming lack of the physical traits then looked for in the Standardbred.

“Altogether he was a strangely fascinating horse to study and to pick to pieces, totally unlike anything ever before seen upon the Grand Circuit – but so potent as a progenitor that he founded a family structurally built upon his own model, the carrying power of the blood being such that in his great great grandson, Billy Direct 1:55, we find it reproduced in its essential characteristics.”

Billy Direct is best known as the sire of Tar Heel and while there are still some sons of Tar Heel with active sire lines their chances of producing on seem slight. There is, however, a continuing line of Direct through

Garrison Hanover in New Zealand and Australia that is represented by Classic Gary and one of his best sons Chandon at stud in Australia.

Direct by Director

Direct Hal

Walter Direct

Napoleon Direct

Garrison Hanover

Garry Rowan

Classic Garry

Chandon

Billy Direct

Tar Heel

The sire legacy of Direct



Direct stood less than 14 hands high but his legacy made him a giant in the maternal identity of the Standardbred pacer. Source: The American Trotter

AXWORTHY was once a dominant part of trotting pedigrees when it was fashionable to cross the immediate bloodlines of Axworthy with those of Peter The Great.

Axworthy traces to yet another son of Hambletonian in George Wilkes whose sons have been responsible for some of the greatest stars of racing in the early part of the century with the likes of Dan Patch and Single G, neither of whom produced on. The legacy of Axworthy as a sire line belongs, however, to two sons of Guy Axworthy, namely Truax and Guy McKinney, who have made different, and at least for now, continuing impacts on the Standardbred breed. A third son of Guy Axworthy, although unable to establish a continuing sire line, was Guy Abbey, the sire of the legendary Greyhound as well as the sire of Scamp, the maternal grand sire of the great Niatross.

Truax evolved into a progenitor of pacing sires with the likes of Knight Dream and his latter day representatives in Duane Hanover, Tropic Song and Romano Hanover. Truax, who was ultimately exported to Europe, is also responsible for the legacy of Hickory Smoke whose propensity for throwing pacers as well as trotters made him an uncertain commodity although his best sons proved to be the trotters Chiola Hanover, with an active sire line in New Zealand, and Dayan.

*Right: Axworthy had a record five two year olds in the 2:30 list in 1894.
Source : The American Trotter*

Guy McKinney is the other son of Guy Axworthy to make an impact on modern day pedigrees primarily due to the emergence of the trotting sires Nearly Perfect and the exported Flower Child. Axworthy still is a force in trotting sire lines with the success of Nearly Perfect and his son Sierra Kosmos.

There also exist several sire lines in Scandinavia, notably the descendants of Pay Dirt, that, in contrast to the broodmares by the same sire, have a relatively minor role now in breeding in Denmark, Norway and Sweden.



Axworthy by Axtell

Dillon Axworthy
Dean Hanover
Guy Axworthy
Lee Axworthy
Lee Tide
Spencer
Guy Abbey
Greyhound
Truax
Calumet Chuck
Nibble Hanover
Knight Dream
Duane Hanover
Titan Hanover
Hickory Smoke
Chiola Hanover
Guy McKinney
Spud Hanover
Florican
Songcan
Nearly Perfect
Sierra Kosmos
Pay Dirt

It should be noted that there are successful sire lines in other countries that trace to the same four sons of Hambletonian in addition to the down under legacy of Strathmore noted previously.

France has an active sire line to The Great McKinney, like Axworthy, a fourth generation remove from George Wilkes, that continues to produce both sires and some of the best broodmare sires in that country. He is noteworthy as the sire of two very prominent broodmare sires in Ogaden and Kairos, sons of the

great Uranie and their daughters are found in many of the top maternal families in that country..

Calumet Delco, a grandson of Peter The Great, and a half brother to the dam of Stars Pride, has had a predictably positive effect on French maternal bloodlines although for years there has been a controversy over the extent of his legacy since another sire Gael, a French bred standing on the same farm, was “mistakenly” given the credit for many of his foals.

Another North American export with a continuing influence in French and Italian breeding is Sam Williams, a son of Peter Scott, whose most prominent credit is as the sire line of the great French champion and super sire Ideal Du Gazeau.

Quick Song, a grandson of Volomite was exported to the European continent in the 1930's and is responsible for the line of Italian superstar Sharif di Iesolo whose sons Capriccio and And Arifant are prominent sires of modern day French performers.

Quick Pay, a son of Stars Pride, is the sire of the fastest trotter in the world, a Swedish bred stallion called Victory Tilly, winner of the Nat Ray in record time over the best aged trotters in the United States. Then of course we have Waikiki Beach extending the Speedy Crown sire line in Italy through the previous World record holder in Varenne.

			<i>Guy Axworthy</i>	<i>Axworthy</i>	Axtell
			<i>Lillian Wilkes</i>	<i>Marguerite</i>	Marguerite
			<i>Mckinney</i>	<i>Guy Wilkes</i>	Guy Wilkes
			<i>Princess Royal</i>	<i>Flora</i>	Flora
			<i>Pilot Medium</i>	<i>Alcyone</i>	Alcyone
			<i>Santos</i>	<i>Rosa Sprague</i>	Rosa Sprague
			<i>The De Forest</i>	<i>Chimes</i>	Chimes
			<i>Red Hose</i>	<i>Estabella</i>	Estabella
			<i>Lee Axworthy</i>	<i>Happy Medium</i>	Happy Medium
			<i>Emily Ellen</i>	<i>Tackey</i>	Tackey
			<i>Peter The Great</i>	<i>Grand Sentinel</i>	Grand Sentinel
			<i>Miss De Forest</i>	<i>Shadow</i>	Shadow
			<i>Lee Tide</i>	<i>Axtell</i>	Axtell
			<i>Petrex</i>	<i>Huma</i>	Huma
			<i>Mr McElwyn</i>	<i>Directum Kelly</i>	Directum Kelly
			<i>Harvest Gale</i>	<i>Silk Garter</i>	Silk Garter
			<i>Peter Scott</i>	<i>Gaity Lee</i>	Gaity Lee
			<i>Roya Mckinney</i>	<i>Todd</i>	Todd
			<i>Volomite</i>	<i>Morning Bells</i>	Morning Bells
			<i>Margaret Castleton</i>	<i>Pilot Medium</i>	Pilot Medium
			<i>Calumet Chuck</i>	<i>Santos</i>	Santos
			<i>Justissima</i>	<i>Baron Wilkes</i>	Baron Wilkes
			<i>Dillon Axworthy</i>	<i>Ethelwyn</i>	Ethelwyn
			<i>Isotta</i>	<i>Guy Axworthy</i>	Guy Axworthy
				<i>Lillian Wilkes</i>	Lillian Wilkes
				<i>Peter The Great</i>	Peter The Great
				<i>Maggie Onward</i>	Maggie Onward
				<i>Walnut Hall</i>	Walnut Hall
				<i>Notelet</i>	Notelet
				<i>Baronmore</i>	Baronmore
				<i>May Gale</i>	May Gale
				<i>Pilot Medium</i>	Pilot Medium
				<i>Santos</i>	Santos
				<i>Bryson</i>	Bryson
				<i>Aetna</i>	Aetna
				<i>Alcyone</i>	Alcyone
				<i>Rosa Sprague</i>	Rosa Sprague
				<i>Chimes</i>	Chimes
				<i>Estabella</i>	Estabella
				<i>Peter The Great</i>	Peter The Great
				<i>Nervolo Belle</i>	Nervolo Belle
				<i>San Francisco</i>	San Francisco
				<i>Mendocita</i>	Mendocita
				<i>Guy Axworthy</i>	Guy Axworthy
				<i>Emily Ellen</i>	Emily Ellen
				<i>Vice Commodore</i>	Vice Commodore
				<i>Lady Leyburn</i>	Lady Leyburn
				<i>Guy Axworthy</i>	Guy Axworthy
				<i>Hollyrood Nimble</i>	Hollyrood Nimble
				<i>Belwin</i>	Belwin
				<i>Sienna</i>	Sienna
				<i>Barongale</i>	Barongale
				<i>Expectation</i>	Expectation
				<i>Toddington</i>	Toddington
				<i>Fruity Worthy</i>	Fruity Worthy
				<i>Axtell</i>	Axtell
				<i>Marguerite</i>	Marguerite
				<i>Sidney Dillon</i>	Sidney Dillon
				<i>Adioo</i>	Adioo
				<i>Pilot Medium</i>	Pilot Medium
				<i>Santos</i>	Santos
				<i>Zombro</i>	Zombro
				<i>The American Belle</i>	The American Belle

Pay Dirt

t,2,2:023m \$90450

Impish

t,2,1:583m \$72001

The Intruder

t,3,T1:591m

Ilo Hanover

t,2:05h

Nibble Hanover

Calumet Chuck

Justissima

Dillon Axworthy

Isotta

Axworthy

Adioo Dillon

Peter The Great

The Zombro Belle

Impish is a double copy to **Manette** as well as having **Margaret Parrish** and both Oniska and Adioo maternally

FRENCH SIRE LINES

It is probably fair to say that most readers of this book, including those in Europe, are familiar with the sire lines of North America but it is doubtful if many of their North American counterparts can say the same about their knowledge of French bloodlines. It is important to review the sire lines of France since developments in recent years have seen an increase in the export of French stock to other countries. There is also a growing interest in breeding to French sires as a result of frozen semen becoming readily available

In an earlier chapter the story of the development of the French trotter was given and it was noted that there were originally five sire lines that traced back their origins to the early 1800's in France. While these sire lines were essentially the creation of English Thoroughbred and Norfolk Trotter stock they are considered to be pure French just as in North America the sires tracing to Hambletonian and ultimately to the English Thoroughbred Messenger, are considered native to North America.

The English Thoroughbred Young Rattler, whose pedigree is unknown, was responsible for three of these lines through Conquerant, Normand and a grandson of Conquerant called Fuschia. Another Thoroughbred sire The Heir Of Linne, who traces back to Bartlets Childers, established what is

commonly called the Phaeton line and the fifth line came from Lavater, a son of the Norfolk Trotter Crocus, whose antecedent was Driver and therefore from the line of Flying Childers..

Today there are just two of these lines with active sires that may extend the lines and one of those, Phaeton, is barely holding on, with just nine active sires among the 426 listed in the 2002 *Annuaire des Etalons Trotteurs*.

The descendants of the original French sire lines, in fact, are represented by only about one third of the sires currently active in France. The rest are the legacy of Peter The Great (254) and The Great McKinney (18). It may be even more disparate since the 22 active sires reputedly tracing to Gael may in fact be the descendants of Calumet Delco as noted earlier.

The line of Fuschia is split into two separate lines through Bemecourt and Narquois but it is the former that seems to be the most likely to continue on especially through Kerjacques whose sons and grandsons have 79, or over half, of the Fuschia line sires currently standing at stud in France.

Fuschia is often called the Hambletonian of France. His sire is of Thoroughbred descent and his dam is Norfolk Trotter just like Hambletonian.

FUSCHIA (145 sires active in sire line)

Bemecourt
 Intermede
 Gael
 Quiroga II
 In Extremis
 Quasipil
 Gazon (4)
 Jokai
 Amiral Williams
 James Pile (9)
 Steed James (2)
 Mitsouko
 Hadol du Vivier (7)

Ontario

Hernani III
 Quinio
 Dubonnet
 Quirinus III
 Duc de Vrie (2)
 Niky des Etangs
 Borgia IV (3)
 Kidy (2)
 Atus II
 Garde Moi
 Amyot
 Mon Tourbillon (5)

Kerjacques (2)
 Niflosac (3)
 Mon Ouiton (5)
 Honorin (2)
 Eleazar (2)
 Ejakval (5)
 Sebrazac (2)
 Reve d'Udon (2)
 Beausejour II (7)
 Le Ham (2)
 Jorky (4)
 Chambon P (18)
 Tipouf (2)
 Tenor de Baune (7)
 Sancho Panca (4)
 Quiton du Coral (2)
 Le Loir (6)
 Moktar (4)

NORMAND (No sires active)

Cherbourg
 Unicus
 Eduen
 Telemaque V
 Quel Vienard
 Gutemberg A
 Patara
 High Echelon

YOUNG RATTLER

Imperieux	Xerces
Voltaire	Ganymede
Kapirat	Quebec
Conquerant	Divus
Reynolds	NORMAND
FUCHSIA	

LAVATER (No sires active)

Tigris
 Kalmia
 Fred Leyburn

THE HEIR OF LINNE (9 sires active)

Phaeton	James Watt
	Uranus
	Enoch
	Quo Vadis
	Javari
	Vermont
	Quioco (6)
	Talassius (3)

PETER THE GREAT (254 active sires in sire line)

Peter Volo (133 active in sire line) Peter Scott (121 active in sire line)
 Volomite
 Worthy Boy
 Stars Pride
 Nevele Pride
 Kimberland (19)
 Ulf D`Ombree (3)
 Pershing (2)
 Blue Dream (3)
 Ayres
 Granit (3)
 Bonefish
 Mickey Viking (3)
 Vikings Way (3)
 Florestan (34)
 Quito de Talonay (12)
 Opus Dei (4)
 Podosis (12)
 Tonnere d'Amour (4)
 Passionnant (10)
 Qlorest du Vivier (4)
 Super Bowl
 Napoletano (2)
 Victory Song
 Quick Song
 Sharif di Iesolo (3)
 And Arifant (10)
 Goetmals Wood (3)
 Biesolo (2)

GEORGE WILKES (18 sires active in sire line)

Scotland
 Spencer Scott
 Rodney
 Speedster
 Speedy Scot
 Speedy Crown (1)
 Speedy Somolli (2)
 Tarass Boulba (5)
 Beautiful Somolli (2)
 Workaholic (16)
 Cygnus D`Odyssee (2)
 Royal Prestige (3)
 Big Prestige (2)
 Buvetier d'Aunou (14)
 Ganymede (6)
 Armbro Goal (3)
 Sam Williams
 Mousko Williams
 Carioca II
 Sabi Pas (4)
 Hetre Vert (5)
 Nicos Du Vivier (2)
 Fakir Du Vivier (16)
 Ukir de Jemma (2)
 Quouky Williams (2)
 Coktail Jet (4)
 Jet de Prapin (2)
 Jet du Vivier (10)
 Ura (6)
 Noble Atout (4)
 Greyhound (2)
 Haut de Bellouet (5)
 Lurabo (5)

Number in brackets is number of active sires by that sire standing in France

Up until 1970 there were no sire lines in France that featured Stars Pride. The breeding of the great mare Roquepine to Stars Pride to produce Florestan changed that situation and also the complexion of the French trotting breed. In the three decades since, Stars Pride has gone from having no representatives to having 118 active sires currently standing in France.

Speedy Crown has not had as long to exert his influence but already there are 52 from that line to add to the 69 that have descended from Sam Williams, the other representative of the Peter Scott line in France.

There is no question about the popularity of North American bloodlines despite the attempts of the French studbook to control their access. Indeed of the fifty sires commanding the highest stud fees in France for 2002, only two were stallions from the original French sire lines, Lutin d'Isigny and Reve d'Udon, from separate branches of the Fuschia line.

The top stud fee is 15,000 Euros for Buvetier d'Aunou, a son of Royal Prestige from Nesmile, and a pedigree

worth looking at when we discuss the maternal identity of the French trotter in a later chapter. Defi d'Aunou, the half brother to Buvetier d'Aunou by Armbro Goal is the next expensive at 10,000 Euros tied with the popular Coktail Jet, a descendent of Sam Williams from the Canadian mare Armbro Glamour.



Above: Sam Williams won the first Hambletonian in 1925 and was exported to stand in France in 1929. Source : Hoofbeats

MOTHERS OF THE WORLD

Harness racing and breeding is like any other sport in that he who plays the percentages based on the past will succeed in the future. This is true not only for the North American Standardbred but for every area of the world where Standardbreds are raced.

The day is fast approaching when the bloodlines of Standardbreds of all countries will become available to anyone who cares to avail him or herself. The technology is here now to send frozen semen around the world and the only remaining barrier that I see is the reluctance of the powers at be to recognize that the Standardbred is an international breed.

The line has been blurred that set the French and American trotter apart and it is small wonder since they are, after all, one and the same, two streams from the same fountain that are coming together to produce a great leap forward in the evolution of the “international” trotter.

The same can be said for the pacing breed when we look at what is happening in Australia and New Zealand, and the performances that their bloodlines are achieving when mingled with the best available from elsewhere in the world. This was not always the case downunder since many of the stallions exported there in earlier years were untried or failed as sires or

racehorses. Nevertheless they took with them a common genetic legacy that has blended well with the much improved bloodlines made available through the “shuttle” stallions and the new breeding technologies.

We now see the results in the exploits of foreign horses on North American soil as world records are set and great races won by the “foreigners”.

It should come as no surprise to find that the maternal identity of the top horses in other countries is woven from the same material as we find in North America. It may have traveled a somewhat different route but the starting out point was the same.

Understanding the makeup of the maternal identity of Standardbreds worldwide will be of great importance in the breeding of the international Standardbred and we can get a glimpse of what to watch out for in the following chapter.

We will begin, in fact, in what John Hervey called The Antipodes in his own entertaining discussion of the American trotter abroad in the last chapter of his book *The American Trotter*. His material contains many interesting facts on the early days of trotting which I will quote freely in his own timeless prose, as we discuss the Standardbred mothers of the world.

THE DOWNUNDER LEGACY

The first *New Zealand Trotting Stud Book* was compiled and published in 1905. The preface to the book, written by Fred C Thomas, has some interesting parallels to the evolution of the Standardbred in North America particularly with respect to the many and varied origins of the “*Colonial breeds*” that formed the early maternal identity in New Zealand.

“By some it may be contended that a Stud Book should be confined to Standardbred horses, but if colonial bred ones were excluded, of what value would such a publication be? As matters now stand it is almost impossible for any horse bred in these colonies to qualify as Standardbred unless it is the offspring of imported parents. Yet are not the ordinary run of New Zealand horses just as good in all respects as those that found a place in the first American Stud Book? By dint of much research I have been enabled to trace most of the best colonial strains right back to their sources, and in nearly every case it will be found that, as is the case in America, they are largely dominated by Thoroughbred blood. To this, no doubt, may be ascribed the stamina of the home bred article as against the majority of importations.”

The first recorded races were in 1862 when trotting races were combined with Thoroughbred races on the programme at Cromwell Jockey Club. The trotters

were hacks or utility horses with quite a bit of Thoroughbred blood and the races were run over a distance of three miles. The New Zealand Trotting Association was founded in 1888 and the first race program confined to trotting horses was held in Otago in 1891. At the turn of the century the record in saddle was 2:34 and in harness was 2:41

The first part of the New Zealand Stud Book is devoted to listing the “*imports*”, many of which were introduced in the early 1880s by Robert Wilkin and John Kerr.

Among the notable imported sires that produced daughters with ongoing maternal families were Harold Dillon by Sidney Dillon from Guycara by Guy Wilkes, a carrier of American Star and Mambrino Patchen; Irvington, by Hambletonian out of Imogene by American Star; Mauritius by Bingen with a third dam by Pilot Jr; Vancleve by Harold, a son of Hambletonian but with a second dam by American Star; Sacramento by Albert W, a son of Electioneer, and from a dam by the Canadian descendent Blue Bull and a maternal family that is Thoroughbred; Wildwood, a son of Electioneer from Leland Stanford’s breeding program with an extensive Thoroughbred background; and Wilmington, by Electioneer from a mare by Dictator, a son of Clara by American Star, and another product of Leland Stanford’s nursery in California.

With this transfer of Diomed sources coupled with the English Thoroughbred background of the colonial mares, the trigger effect is clearly evident in Australasian breeding due to these early North American imports. It is interesting to note that Miss Russell has also had an influence in the development of Australian and New Zealand maternal families since the name of Jack Potts is worth remembering as a broodmare sire. His dam Margaret Steiner traces to Miss Russell through the maternal lines of her sire Steiner. Another Miss Russell influence has been through Guy Parrish, a son of the trigger mare Margaret Parrish and yet another great maternal influence has been Dillon Hall whose dam is by Dillon Axworthy.

There are also listed, in the first studbook, over twenty imported mares that are considered foundation mares in down under breeding. Alice Azmoor, by a son of Electioneer, is responsible for one of the leading families and she has a dam by Almont whose second dam is by Pilot Jr. The fourth dam of Alice Azmoor is Grey Eagle and the fifth dam is by Tiger, son of Jane Hunt. She was imported in 1894 and bred to Wildwood.

Woodburn Maid, a product of his Woodburn Farm in Kentucky, represents the influence of R A Alexander's broodmare band. Her dam is by Royal Pilot a son of Kathleen by Pilot Jr, thus bringing the heritage of Kathleen to New Zealand shores.

BONILENE, imported to New Zealand in 1915 has left a family that has produced its share of great horses and she carried a trace to Miss Russell from her second dam Mamie Comet by Nutwood, a son of Miss Russell. Bonilene's granddaughter Vistula picked up Adioo through her sire Dillon Hall to form the basis of the maternal family of Westburne Grant, one of the richest pacers ever in the Southern Hemisphere.

Mamie Comet by Nutwood

Madelaine Marshall by Demonio
Bonilene by The Bondsman
St Helena by Wrack
Vistula by Dillon Hall
Mary Hall by Dillon Hall
Bonny Norval by Norval King
Conquest by Rey De Oro
Bonny Logan by Logan Pointer
Safety Pin by Rey de Oro
Coquette by Rey de Oro
Bonny Brigade by Light Brigade
Bashful by Grattan Loyal
Admiration by Grattan Loyal
Bonny Drusus by Drusus
Bonny Rey by Rey de Oro
Loyal Bonny by Grattan Loyal
High Hat by Grattan Loyal
Fay Grattan by Grattan Loyal

Vistula picks up Miss Russell from Nutwood, Mambrino Patchen from Demonio, Juliet by Pilot Jr from The Bondsman, American Star and Kate by Pilot Jr from Wrack and finally Miss Russell again through Adioo, plus American Star and Mambrino Patchen again in Dillon Hall. She is well on her way to being a major part of the female identity in New Zealand and Australia.

			<i>Hal Dale</i>	<i>Abbedale</i>	The Abbe
		<i>Dale Frost</i>		<i>Margaret Hal</i>	Daisydale D
			<i>Galloway</i>	<i>Raider</i>	Argot Hal
		<i>Meadow Skipper</i>		<i>Bethel</i>	Margaret Polk
	p,3,1:551m			<i>Volomite</i>	Peter Volo
		<i>Countess Vivian</i>	<i>Kings Counsel</i>	<i>Margaret Spangler</i>	Nelda Dillon
				<i>Billy Direct</i>	David Guy
			<i>Filly Direct</i>	<i>Calumet Edna</i>	Annotation
				<i>Hal Dale</i>	Peter Volo
		<i>Bret Hanover</i>	<i>Adios</i>	<i>Adioo Volo</i>	Cita Frisco
				<i>Tar Heel</i>	Guy Axworthy
			<i>Brenna Hanover</i>	<i>Beryl Hanover</i>	Maggie Winder
				<i>Hal Dale</i>	Napoleon Direct
		<i>Scoot Time</i>	<i>Good Time</i>	<i>On Time</i>	Gay Forbes
				<i>Scotland</i>	Peter The Brewer
			<i>Scotlanta</i>	<i>Lady Lomite</i>	Broncho Queen
				<i>Calumet Chuck</i>	Abbedale
		<i>Knight Dream</i>	<i>Nibble Hanover</i>	<i>Justissima</i>	Margaret Hal
				<i>Peter The Brewer</i>	Adioo Guy
		<i>Lumber Dream</i>		<i>Guy Rosa</i>	Sigrid Volo
	p,3,1:582m		<i>Dominion Grattan</i>	<i>Oro Grattan 2nd</i>	Billy Direct
			<i>Miss Dominion Watt</i>	<i>Minnie Bingen</i>	Leta Long
			<i>Miss Watt</i>	<i>True Volo</i>	Nibble Hanover
				<i>Helen G Watts</i>	Laura Hanover
		<i>Flying Song</i>	<i>Volomite</i>	<i>Peter Volo</i>	Abbedale
				<i>Cita Frisco</i>	Margaret Hal
		<i>Jan Corena</i>	<i>Evensong</i>	<i>Nelson Dillon</i>	Volomite
				<i>Taffolet</i>	Nedda Guy
			<i>Light Brigade</i>	<i>Volomite</i>	Peter Scott
				<i>Spinster</i>	Roya Mckinney
			<i>Vistula</i>	<i>Dillon Hall</i>	Volomite
				<i>St Helena</i>	Her Ladyship
					Truax
					Sumatra
					Justice Brooke
					Claire Toddington
					Peter The Great
					Zombrewer
					Guy Axworthy
					Rosa Lake
					Grattan Royal
					Oro Maggie
					Fritz Bingen
					Lady S
					Peter Volo
					Trudy Guy
					General Watts
					Helen G
					Peter The Great
					Nervolo Belle
					San Francisco
					Mendocita
					Dillon Axworthy
					Miss Pierette
					Guy Axworthy
					Taffeta Silk
					Peter Volo
					Cita Frisco
					Spencer
					Minnetonka
					The Laurel Hall
					Margaret Dillon
					Wrack
					Bonilene

The dam of Westburn Grant is permeated with traces to **Guy Wilkes**, a carrier of both American Star and Mambrino Patchen

NORICE, by Charles Derby, was imported in 1905 and is a double copy to American Star. Her maternal line is one of the most important of all the imported mares and descends directly to such top horses as the New Zealand bred millionaire winner Iraklis while her breedings to Nelson Bingen, a source of Mambrino Patchen and Diomed directly, produced such foundation sires as Nelson Derby and Native King.

The fourth dam of Iraklis is Single Star who is responsible for a large number of top performing descendants. She was by Nelson Derby, a son of Norice and was a great grand daughter of Norice as well. She was, in fact, a New Zealand equivalent of Helen Hanover being inbred 2x3 to Norice. Far from being a single star she had eight traces to American Star maternally.

An interesting footnote on the early development of pacing in New Zealand is that the first pacer to break the two minute barrier in New Zealand was Lawn Derby, an Australian bred descendant of Charles Derby, sire of Norice.

Lawn Derby's maternal line goes back to a colonial mare by Premier from an Arabian mare. Premier was by Hambrino a grandson of Hambletonian, and his dam was by Pilot Jr.

What a curious twist of fate that we should see all of the important players in the development of the Standardbred displayed in a maternal pedigree conceived on the other side of the world that combines the Thoroughbred, the Arab and the Canadian.

Dairy Maid by Vermont Black Hawk

Pilotta by Glasgows Pilot
Myrtle by Masterlode
Areline by Gambetta Wilkes
Betsy Trotwood by Pecks Idol
Ethel by Enfield
Lucy E by Black Walnut
Naulahka by Balkan
NORICE by Charles Derby
Theda Bara by Van Coronado
Queen Cole by King Cole
Lady Derby by Rothschild
Cole Queen by King Cole

Enfield and Black Walnut both carry American Star, as does Charles Derby, sire of Norice.

Pilotta had two daughters, one that led to Norice and the other called Myrtle by Masterlode. Both daughters took four generations before branching out. Masterlode also carried American Star as his dam sire. Myrtle, through her great granddaughter Laurel Queen is responsible for an extensive maternal family in North America that includes such exceptional performers as Mystical Maddy and Nines Wild, both millionaire mares, as well as Sonsam and Sealed N Delivered.

			<i>May King</i>	<i>Electioneer</i>	Hambletonian
		<i>Bingen</i>	<i>May Queen</i>	<i>May Queen</i>	Green Mountain Maid
	<i>Nelson Bingen</i>		<i>Young Miss</i>	<i>Young Jim</i>	Norman
p,2:20			<i>Baron Wilkes</i>	<i>Miss Mambrino</i>	Jennie
		<i>Suzette Baron</i>		<i>George Wilkes</i>	George Wilkes
	<i>Nelson Derby</i>			<i>Belle Patchen</i>	Lear Mare
			<i>Suzette Nelson</i>	<i>Nelson</i>	Red Wilkes
				<i>Louetta</i>	Miss Clark
				<i>Strathmore</i>	Hambletonian
				<i>Abbess</i>	Dolly Spanker
		<i>Charles Derby</i>	<i>Katie G</i>	<i>Electioneer</i>	Mambrino Patchen
	<i>Norice</i>			<i>Fanny Malone</i>	Sally Chorister
		<i>Naulahka</i>		<i>Mambrino Wilkes</i>	Young Rolfe
			<i>Lucy E</i>	<i>Fanny Fern</i>	Grechen 1886
				<i>Black Walnut</i>	Kentucky Prince
		<i>Copa De Oro</i>		<i>Ethel</i>	Smith Mare
	<i>Rey De Oro</i>			<i>Guy Wilkes</i>	Hambletonian
				<i>Lida W</i>	Lady Waltermire
		<i>Surbito</i>		<i>Patron</i>	Albion
				<i>Athene</i>	By Marshal Ney
	<i>Queens Treasure</i>			<i>Strathmore</i>	Hambletonian
			<i>Steinway</i>	<i>Abbess</i>	Lady Bunker
				<i>Mckinney</i>	Jack Hawkins
			<i>Jenny McKinney</i>	<i>Minerva</i>	Unknown
				<i>Leonor</i>	Administrator
				<i>Wildwood</i>	Madura
				<i>Dolly</i>	<i>Enfield</i>
				<i>Rothschild</i>	Betsy Trotwood
				<i>Kola</i>	George Wilkes
		<i>King Cole</i>		<i>Bella</i>	Lady Bunker
	<i>Queen Cole</i>			<i>Pan coast</i>	Nutwood
				<i>Beatrice</i>	Belle
		<i>Norice</i>		<i>Harold</i>	Pan coast
			<i>Charles Derby</i>	<i>Minerva</i>	Beatrice
				<i>Albion</i>	Harold
			<i>Katie G</i>	<i>Hambletonian</i>	Minerva
				<i>Lady Waltermire</i>	Lady Bunker
			<i>Naulahka</i>	<i>Aclyone</i>	Albion
				<i>Rosa Sprague</i>	By Marshal Ney
				<i>Dashwood</i>	Aclyone
				<i>Geraldine</i>	Rosa Sprague
				<i>Good Gift</i>	<i>Dashwood</i>
				<i>Amlet</i>	Geraldine
				<i>Young Irvington</i>	Good Gift
				<i>Thorobred Mare</i>	Amlet
				<i>Childe Harold</i>	Young Irvington
				<i>Bella Briggs</i>	Thorobred Mare
				<i>Harold Childe</i>	Childe Harold
				<i>Mare</i>	Bella Briggs
				<i>Strathmore</i>	Harold Childe
				<i>Abbess</i>	Mare
				<i>Electioneer</i>	Strathmore
				<i>Fanny Malone</i>	Abbess
				<i>Mambrino Wilkes</i>	<i>Electioneer</i>
				<i>Fanny Fern</i>	Fanny Malone
				<i>Black Walnut</i>	Mambrino Wilkes
				<i>Ethel</i>	Fanny Fern

Single Star is a double copy to **American Star** as is her dam and third dam and she is inbred 2x3 to **Norice**.
The dam of her sire Nelson Derby is a double to **American Star**

Norice, who was by Charles Derby, was from what is now generally referred to as the Globe Derby line brought to Australasia by the importation of the stallion Owyhee from California.

Strathmore by Hambletonian

Santa Claus
Sidney
Steinway
Klatawah
Charles Derby
Owyhee
Mambrino Derby
Globe Derby

The Globe Derby line was responsible for a large number of sires that formed the basis for the early Standardbred sire lines in Australasia prior to the imports of the mid 1900's

Another sire line that has a unique history as surviving in the Southern Hemisphere while dying out in the North is that of Star Pointer, the first 2:00 pacer, or to be more specific his son Logan Pointer. A foal of 1909 he was imported into New Zealand in 1915 and made an immediate impact being the leading sire for many years. His legacy, however, lies with his daughters.

Logan Pointer had a pedigree that was largely Canadian in origin. Star Pointer, his sire, was line bred 3x4 to Kittrells Tom Hal, while his second dam through Blue Bull and his third dam through Iowa Chief also had Canadian origins on sire line.

We have previously noted the presence of Margaret Parrish in the maternal lines of the great Cardigan Bay, the first million-dollar winner, who raced in 1960's but what of the modern day standouts in the Southern Hemisphere.

In the last few years we have seen a spate of imports racing and winning in North America. Top performers like Tupelo Rose, Sparks A Flyin, and Lyell Creek are competing and beating the best older performers in North America.

Tupelo Rose is a double copy to Volomite and Miss Russell through Oniska

Sparks A Flyin is a double copy to Tar Heel and Miss Russell through Oniska

Lyell Creek is from a dam that is a double copy to Adioo and Miss Russell.

In most cases the double copy to the X-factor was the first one to occur anywhere in the pedigree. As you will see this is a common occurrence among foreign horses in particular that do not have the same concentration and variety of X-factor sources as occur in North America.

On the home front in New Zealand the best two in recent years are Christian Cullen and Courage Under Fire, like Tupelo Rose, offspring of In The Pocket, a former regional sire in North America rejected by the

<i>Sampson Direct</i>	<i>Sampson Hanover</i>	<i>Volomite</i>	Peter Volo
<i>Direct Scooter</i>	<i>Irene Hanover</i>	<i>Cita Frisco</i>	Cita Frisco
p,3,1:54m	<i>Billy Direct</i>	Dillon Axworthy	Dillon Axworthy
	<i>Beams Hanover</i>	Isotta	Isotta
	<i>Victory Song</i>	Napoleon Direct	Napoleon Direct
	<i>Emilys Pride</i>	Gay Forbes	Gay Forbes
	<i>Scotland</i>	Calumet Chuck	Calumet Chuck
	<i>Abbey Claire</i>	Lexington Maid	Lexington Maid
	<i>Noble Victory</i>	Volomite	Volomite
	<i>Scotch Claire</i>	Evensong	Evensong
	<i>Billy Direct</i>	Stars Pride	Stars Pride
	<i>Tar Heel</i>	Emily Scott	Emily Scott
	<i>Leta Long</i>	Peter Scott	Peter Scott
	<i>Meadow Skipper</i>	Roya McKinney	Roya McKinney
	<i>Spring Beauty</i>	Guy Abbey	Guy Abbey
	<i>Albatross</i>	Jean Claire	Jean Claire
	<i>Brets Romance</i>	Walter Direct	Walter Direct
	<i>Race Time</i>	Lady Erectress	Lady Erectress
	<i>Marge Butler</i>	Malcolm Forbes	Malcolm Forbes
	<i>Overtrick</i>	Gay Girl Chimes	Gay Girl Chimes
	<i>Milmite</i>	Peter Volo	Peter Volo
	<i>Emory Hanover</i>	Cita Frisco	Cita Frisco
	<i>Adios Anne</i>	Mr McElwyn	Mr McElwyn
		Rose Scott	Rose Scott
		Hal Dale	Hal Dale
		Galloway	Galloway
		Kings Counsel	Kings Counsel
		Nibble Direct	Nibble Direct
		Nibble Hanover	Nibble Hanover
		Katherine Palmer	Katherine Palmer
		His Honor	His Honor
		Barbara Brewer	Barbara Brewer
		Dale Frost	Dale Frost
		Countess Vivian	Countess Vivian
		Ace Flyer	Ace Flyer
		Barbara Honor	Barbara Honor
		Meadow Skipper	Meadow Skipper
		Voodoo Hanover	Voodoo Hanover
		Bret Hanover	Bret Hanover
		Knights Embassy	Knights Embassy
		Good Time	Good Time
		Breath O Spring	Breath O Spring
		Adios Butler	Adios Butler
		Hope B	Hope B
		Solicitor	Solicitor
		Overbid	Overbid
		Volomite	Volomite
		Millie Worthy	Millie Worthy
		Tar Heel	Tar Heel
		Ella Pence	Ella Pence
		Captain Adios	Captain Adios
		Khamain	Khamain

major farms because of his “*unfashionable*” bloodlines. Christian Cullen’s dam is a double copy to Adioo and carries Helen Hanover through Overtrick. Courage Under Fire also has a double copy Adioo dam. Once again the double copies occur for the first time ever in the pedigrees.

Harness racing meetings have been held in Australia for more than 130 years on tracks ranging in circumference from 700 to 1000 metres. The origins of racing in Australia are very similar to those of New Zealand and although the breeding industry there is not blessed with the same climate and soil conditions it has, nevertheless, become well established and capable of producing champions to compete with those of their neighbours.

The maternal families of Australia, as in New Zealand, are predominately Thoroughbred in origin, and while they too have a base of imported mares in their gene pool, the sales catalogues still identify many families by their old Australian origins such as Miss Tommy and Vanity.

Tailamade Lombo, by Troublemaker, is the best filly ever produced in Australia with over \$1.5 million in earnings. She is a double copy to Adioo also with no previous similar crosses in her pedigree. Her maternal family features several lines through Globe Derby whose siring legacy was predominantly Australian in

nature. Her maternal family, however, traces to the New Zealand family of Secret by Ajax whose second dam was by American Star. This family goes six generations before a significant performer comes along via Tailamade Lombo’s second dam Lady Meadows by Van Hall, a grandson of Globe Derby.

Lady Meadow’s dam, Well Paid, had just picked up the second American Star trace for the family as well as another Pilot Jr trace through Jack Potts, making her a double to both sources. Van Hall’s dam was also a double to American Star, a seemingly recurring theme among early horses in both Australia and New Zealand.

Lady Meadows produced an exceptional performer for his day in Trunkey Sting by Massey, a winner of over \$250,000, as well as Butterfly Trunkey by the imported Batman, and she was the dam of Tailamade Lombo. Batman brought Adioo, and a double to both Dardanell and American Star from his maternal lines and the stage was set for an Australian champion.

The words of *New Zealand Stud Book* compiler Fred Thomas were very prophetic in 1907 when he said: “*It is my hope that the Stud Book will be the means of instituting a “colonial standard”, quite distinct from the American one, which, in the ordinary course of evolution and progress, will, in time, be little behind that subscribed to in the home of trotting.*” I would suggest that time has arrived.

		<i>Meadow Skipper</i>	<i>Dale Frost</i>	<i>Hal Dale</i>	Abbedale
			<i>Countess Vivian</i>	<i>Galloway</i>	Margaret Hal
				<i>Kings Counsel</i>	Raider
				<i>Filly Direct</i>	Bethel
				<i>Hal Dale</i>	Volomite
				<i>On Time</i>	Margaret Spangler
				<i>Knight Dream</i>	Billy Direct
				<i>Maxine Abbe</i>	Calumet Edna
				<i>Hal Dale</i>	Abbedale
				<i>Adios</i>	Margaret Hal
				<i>Adioo Volo</i>	Volomite
				<i>Tar Heel</i>	Nedda Guy
				<i>Beryl Hanover</i>	Nibble Hanover
				<i>Nibble Hanover</i>	Lydia Knight
				<i>Susan Knight</i>	Abbedale
				<i>Knight Dream</i>	Maxine Direct
				<i>Miss Vermont</i>	Abbedale
				<i>Poplar Byrd</i>	Margaret Hal
				<i>Evalina Hanover</i>	Adioo Guy
				<i>Bye Bye Byrd</i>	Sigrid Volo
				<i>Anna S</i>	Billy Direct
				<i>Van Derby</i>	Leta Long
				<i>Erinack</i>	Nibble Hanover
				<i>Welfare</i>	Laura Hanover
				<i>Payona</i>	Calumet Chuck
					Justissima
					Peter The Brewer
					Guy Rosa
					Single G
					Etabella
					Peter Vonian
					Althea M
					Peter Volo
					Cita Frisco
					Grattan At Law
					Margaret Vonian
					Napoleon Direct
					Gay Forbes
					Hal Dale
					Adioo Volo
					Abbedale
					Margaret Hal
					Adioo Guy
					Sigrid Volo
					Abbedale
					Dierker Direct
					Single G
					La Paloma
					Mambrino Derby
					Spring Heel
					Childewood
					Warvan
					Peter The Great
					The Colorado Belle
					Erins King
					Miss Fortune
					Nelson Derby
					Regal Voyage
					Jack Potts
					Light Wings
					Globe Derby
					Pickaway
					Charming Bells
					Gift

Tailamade Lombo is a double to **Adioo** and also a multiple double to American Star

THE EUROPEAN CONNECTION

FRANCE

The first trotting races in France were staged in 1806 on the Champs de Mars in Paris while the first racetrack was built in Cherbourg in the 1830's. These first races were for ridden horses and this tradition has continued to this day with both ridden (monte) and harness (attele) racing sharing equal billing on most race programs. Monte races require a horse of greater size and endurance because of the weight carried and also a gait that is perfectly balanced and level in its action. These qualities have established the essential character of the French Trotter.

While the earliest French trotters were inclined to be rather coarse, the infusion of North American bloodlines has produced an animal much finer and closer to the Thoroughbred in appearance along with an increase in speed. That the French breeder has been able to accomplish this without sacrificing the courage, soundness and stamina of the French Trotter is a testament to the skills learned over the past eight centuries.

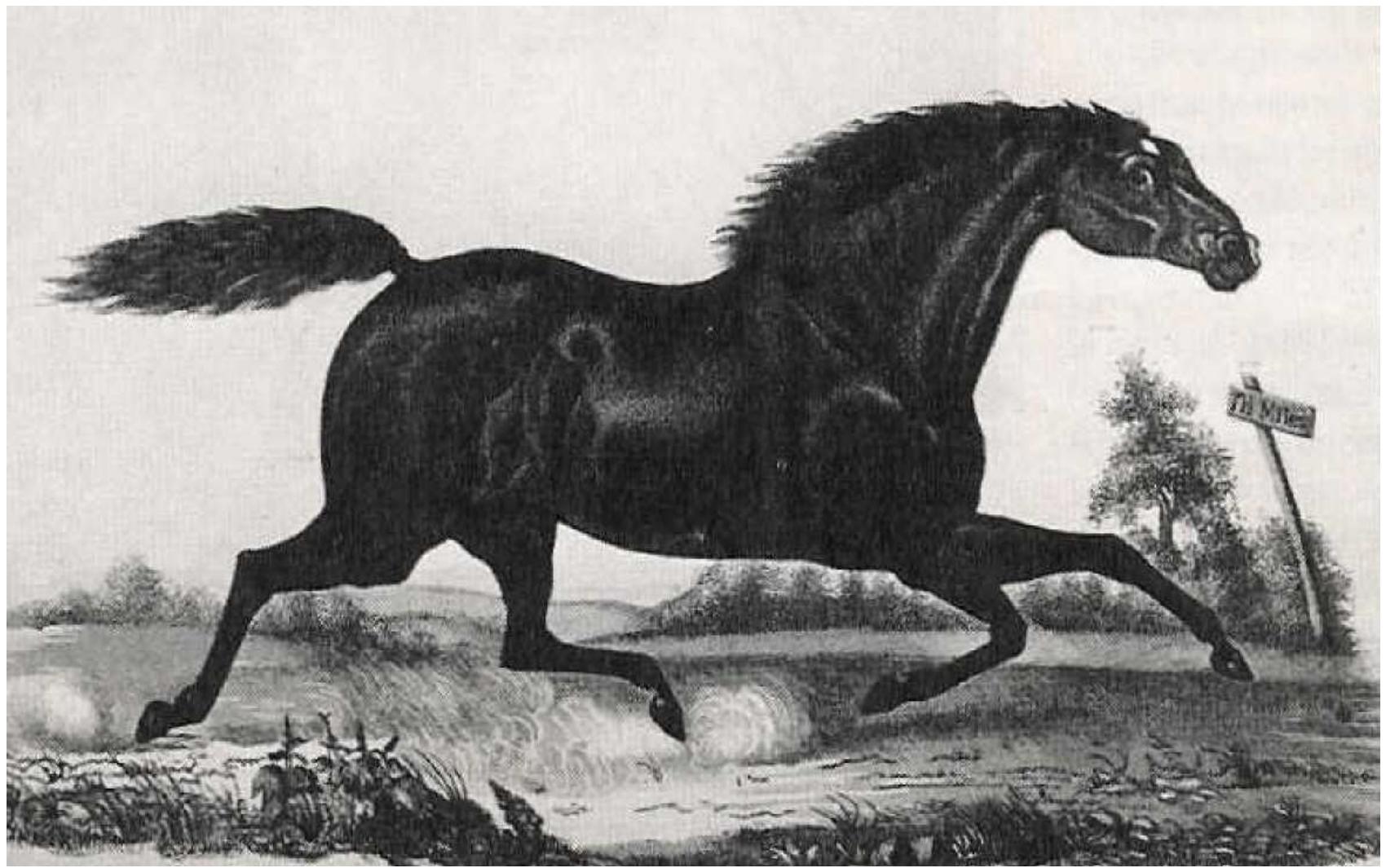
The earliest imports for breeding purposes of American trotters to Europe were into France. John Hervey gives an interesting account of these early ventures and states that the first stallion to go to

Europe was an inbred Morgan stallion called Shepherd F Knapp born in Maine around 1857. He was sent to England at the outbreak of the Civil War and raced there against other road horses where he was unbeaten. From there he went to France to take on all comers with the same result. He stood at stud there and his bloodlines are now buried deep in French maternal breeding.

Around the same time in the 1850's, two American trotting mares, Lady Pierce and Miss Bell, had been taken to France, where they raced well and eventually ended up in the broodmare ranks. Lady Pierce produced a fast daughter, Miss Pierce that in turn produced Reynolds, the sire of Fuschia, as Hervey calls him "*the Hambletonian of France and by far its greatest progenitor*". Miss Pierce also distinguished herself on the race track in France by becoming that country's first 2:40 trotter.

Miss Pierce was also an interesting combination of bloodlines. Her dam, Lady Pierce, was an American trotter by Henry Clay, grandson of the pure bred Arabian horse Grand Bashaw. Henry Clay's dam was the fast Canadian trotting mare Lady Surrey.

The dam of Lady Pierce was Betsey Baker by Mambrino, sire of Hambletonian. The sire of Miss Pierce was Succes, a Norfolk Trotter descended from Old Phenomenon the sire of the Norfolk Phenomenon.



The Norfolk Trotter was an important influence on early French breeding of trotters. This picture is of the Norfolk Trotter Jary's Bellfounder, sire of the dam of Hambletonian. The maternal identities of both American and French trotters share the same legacy. – Source – The Trotting Museum



Above: The smooth gait of the Monte trotter shown in Gerfaut de Pouline
Below: French Champion Gobernador begins his stallion career in 2002



Top Left: Buvetier d'Aunou commands the top stallion fee in France
Bottom Left: Defi d'Aunou was a winner of seven Grade 1 races in France
Source : Annuaire des Etalons Trotteurs 2002



The dam of Succes was Thoroughbred with a sire line through Merlin, an English stallion from the Byerly Turk line.

We have already discussed the origins of the French trotter but we can now extend that discussion with what we know about the X-factor and its origins.

French trotting, like every other Standardbred trotting breed, also owes a great debt to the maternal influence of the X-factor trace. In the early 1920's an American import called The Great McKinney connected with the French mare Uranie to produce Kairos and Ogaden, two of the most influential broodmare sires in French trotting history. The Great McKinney's dam had a daughter of Pilot Jr on both sides of her pedigree making her a double copy to the Diomed strain. Uranie carried no fewer than seven maternal traces to the imported English Thoroughbred Tipple Cider whose dam in turn was a carrier of several direct maternal X-factor traces to both Bartlets Childers and Flying Childers.

The path through Tipple Cider goes via his daughters, of which there are four that show up frequently in top French bloodlines.

Ulysse is the dam of Belle Poule whose daughter Centaurine is inbred maternally to Tipple Cider 3x3 since she is by Elu whose dam is another daughter of

Tipple Cider called Toison d'Or. Another Tipple Cider daughter is unnamed and is the granddam of Sir Quid Pigtail from Fleur de Mai.

The fourth daughter is Fatemey and is the maternal line, through Oublieuse, of Javari whose grandson Quioco is the last hope for the Phaeton sire line. Fatemey is also responsible for French monte classic winner and current sire A Novo through Tigresse.

Daughters of Tipple Cider

Ulysse

Belle Poule by Centaure
Centaurine by Elu
Clementine by Phaeton
Quintille by Kiffis
Koleah by Elan
Belle Poule by James Watt
Eglantine I I by Niger
Brillante by Abrantes
Dulcinee by Phaeton
Tenebreuse by Kalmia

Toison d'Or

Tipple Cider Mare

Sultane by Centaur
Fleur de Mai by Niger

Fatemey

Belle de Jour by Inkerman
Voltigeuse by Parthenon
Orgueilleuse by Edimbourg
Tigresse by Hercule Normand
Jardiniere by Beauge
Quand meme by James Watt
Oublieuse by Fuschia
Lisette by Cherbourg

Belle Poule is the most important line through her descendent also called Belle Poule by James Watt. The second Belle Poule is the dam of one of the greatest sires in French history, Intermede, as well as of a full brother called Jongleur. She also had two daughters who carry the maternal legacy to such modern day sires as Vikings Way and Passionnant.

Intermede, besides being the kingpin in the development of the family of sires founded by Fuschia, is also a noted broodmare sire. If Fuschia was the Hambletonian of France, then Intermede was its Volomite. His remarkable ability to produce such excellence in both his sons and daughters is rare indeed.

His most famous daughter is the great Uranie, a legend as a racemare and an even greater legend as a broodmare. As noted earlier, when bred to The Great McKinney she produced two pivotal sires in Ogaden and Kairos who continue the tradition of Intermede to this day with their impact on sire lines and the maternal identity alike.

There are two Thoroughbred mares, Perce Neige and Gladys, which must be added to the list of important maternal influences in France.

Perce Neige was a foal of 1875 by the English Thoroughbred Cymbol imported to France to race and then sent to stud. The dam of Cymbol was Nelly Hill

and she carries no fewer than twelve maternal traces to Amorette, the prolific daughter of Bartlets Childers, as well as several other traces to The Spanker Mare..

Her dam was by The Heir Of Linne, whose dam in turn carries six traces to Amorette while her second dam was the imported Thoroughbred mare Twilight about which we know nothing. Perce Neige has more maternal traces to The Spanker Mare than any other French bred mare that I am aware of.

Like so many mares that carry a strong legacy of The Spanker Mare it is through her son Benjamin that the X-factor influence on the maternal lines of France is apparent.

Gladys was a relatively recent addition to French bloodlines being a foal of 1928. Her sire was the English Thoroughbred Craig An Erin, whose dam Maid Of The Mist is a double to Diomed and has a fourth dam that is inbred to Young Giantess, one of Diomed's greatest daughters. The second dam of Gladys is also a double copy to Diomed.

Her daughter by Hernani III, a direct descendent of the original Belle Poule, was called Dladys and she combined these two sources into the maternal family of several of the most important broodmare sires in French breeding including her son Jamin and Caprior from her daughter Ninja.

		<i>Reynolds</i>	<i>Conquerant</i>	Kapirat
	<i>Fuschia</i>	<i>Miss Pierce</i>		Elisa
	<i>Bemecourt</i>	<i>Lavater</i>		Succes
		<i>Sympathie</i>		Lady Pierce
	<i>Ergoline</i>	<i>Normand</i>		Crocus
		<i>Vilna</i>		Candelaria
	<i>James Watt</i>	<i>Sir Quid Pigtail</i>		Pedagogue
		<i>Ceres</i>		Debutante
	<i>Intermede</i>	<i>The Heir Of Linne</i>		Divus
		<i>La Crocus</i>		Balsamine
	<i>Belle Poule</i>	<i>Vichnou</i>		Crocus
		<i>Mademoiselle De Neuville</i>		Victoire
	<i>Koleah</i>	<i>Serpolet Bai</i>		Jactator
		<i>Rosiere</i>		Fleur De Mai
		<i>Phaeton</i>		Urimesnil
		<i>Dame D'honneur</i>		Ida
		<i>Elan</i>		Galaor
		<i>Clementine</i>		Mrs Walker
		<i>Harley</i>		Crocus
	<i>Urffe</i>	<i>Medine II</i>		Elisa
		<i>Fuschia</i>		Le Sarrazin
	<i>Gladiateur</i>	<i>Monita</i>		Valeriane
		<i>Fuschia</i>		Elu
	<i>Venus</i>	<i>Ciceron II</i>		Impatiene 1870
		<i>Reynolds</i>		Normand
	<i>Pastourelle</i>	<i>Reveuse</i>		Margot
		<i>Miss Wilna</i>		Conde
	<i>Verluisant</i>	<i>Niger</i>		Fortunee
		<i>Clementine</i>		The Heir Of Linne
	<i>Joujou</i>	<i>Edimbourg</i>		La Crocus
		<i>Capucine</i>		Elu
	<i>Belle Kiffis</i>	<i>Nizam</i>		Belle Poule
		<i>Nacelle</i>		The Heir Of Linne
				La Crocus
				Normand
				Niska
				Tigris
				Coquette
				The Heir Of Linne
				Kindler
				Conquerant
				Miss Pierce
				Lavater
				Sympathie
				Tigris
				Mademoiselle De Breville
				Phaeton
				Sultane II
				Conquerant
				Miss Pierce
				Lavater
				Sympathie
				The Norfolk Phenomenon
				Miss Bell
				Phaeton
				Centaarine
				Serpolet Bai
				Harmonie
				Phaeton
				Quiclet Mare
				Fontenay
				Allumette
				Galant II
				Ida

Uranie is a double copy to the **Belle Poule** trace since she has her daughter Centaurine 5x6 maternally
The dam of Intermede is a double copy to **Tipple Cider**, sire of the dam of Belle Poule.

Among the most common North American sources of the X-factor in European Standardbreds is the inbred North American mare Oniska (dam of San Francisco), and she shows up in older French pedigrees as well.

The current top French horse Insert Gede features several double ups of the principal French connection to the X-factor influence through Belle Poule, dam of Intermede and Jongleur.



It is little wonder that Insert Gede is a dominant figure in European trotting with such a buildup of X-factor influence. Source: Annuaire des Étalons Trotteurs 2002

Insert Gede's dam, Cadence Gede, is by Jiosco whose second dam is a double copy to Belle Poule. His second dam Heitida is by Querido II whose second dam is the Thoroughbred Gladys by Craig An Eran.

Insert Gede's third dam is a double to Belle Poule since her sire, Volontaire brings back Intermede inbred 2x3 through Consolata, and her dam in turn traces directly to Semendria who is inbred 3x3 to James Watt.

The X-factor trace through Gladys is prominent in the success of individuals such as Defi D'Aunou whose dam Nesmil is by Caprior, a great grandson of Gladys. The dam of Caprior is by Abner whose dam in turn is inbred 2x4 to Intermede. Nesmil's dam combines a trace to James Watt from her sire with a double copy of the same source through Volontaire, sire of Nesmil's second dam. To cap things off we find that Nesmil's sixth dam in direct line is Miladi Anne by San Francisco.

The great Ourasi was from a mare that was a double copy to Perce Neige as well as to Tipple Cider. His dam Fleurasie was by Remember, a sire that carried Perce Neige, Oniska, and Tipple Cider from his maternal line. Fleurasie's dam, Taina du Mont, was a multiple source of Tipple Cider and her third dam was a double to Perce Neige and Belle Poule. Fleurasie was 3x4 maternally to Quiroga II, a carrier of Perce Neige.

Fleurasie combines in her pedigree, not only the legacy of Belle Poule and Perce Neige, but also the legacy of the American mares Helen Leyburn and Miss Pierce.

Fleurasie

Remember

t,1:20

Bredouille

L` X

Taina Du Mont

Moniqua II

Euripide

Igra

Stile

Carioca II

Uvette

Atus II

Hernani III

Juignettes

Ontario

Odessa

Cormantreuil

Quarantaine

Calumet Delco

Femina III

Calumet Delco

Capricieuse

Mousko Williams

Quovaria

Neron M

Lucette

Kairos

Staal D

Quiroga II

Kangra

Bemecourt

Epingle

Fauchon II

Tenebreuse

Quarteron

Oriflamme

Kalmouk

Une Divorcee

Peter The Brewer

Dillcisco

Enoch

Quasquara

Peter The Brewer

Dillcisco

Omar

Quillette

Sam Williams

Carlotta

Javari

Champagne III

Phoenix

Redowa

Trianon

Bidassoa

The Great McKinney

Uranie

Duc De Normandie II

Bagatelle III

Calumet Delco

Femina III

Telemaque V

Febora

Fuschia

Ergoline

Senlis

Aurore

Michigan

Querella

Kalmia

Dulcinee

King

Quenotte

Azur

Arcadie

Bemecourt

Quintille

Kalmia

Divorcee

Peter The Great

Zombrewer

San Francisco

Dilworthy

Uranus

Union

Fortunio

Junon

Peter The Great

Zombrewer

San Francisco

Dilworthy

Bemecourt

Quillette

Dakota

Girouette

Peter Scott

Blitzie

Enoch

Junon

Quo Vadis

Reluisante

Jongleur

Dannemarie

Trinqueur

Avize

Harold

Esther

Intermede

Luna Park

Dancourt

Ivraie

Arion McKinney

Virginia Dangler

Intermede

Pastourelle

Salam

Mlle De La Morandiere

Reynolds V

Veles

Peter The Brewer

Dillcisco

Enoch

Quasquara

Eduen

Hermione V

Quo Vadis

Petite Vitesse

Fleurasie, the dam of Ourasi, is a double to **Tipple Cider** and **Perce Neige**

Fan Idole, the top mare in France currently, and winner of the 2002 Trot Mondial in Canada, beating Varennes and Fools Goal, is another fine example of the influence of the X-factor and the power of Belle Poule.



Above: French Champion mare Fan Idole conquered the best trotters in the world in the 2002 Trot Mondial in Montreal, Canada. Source: Annuaire des Etalons Trotteurs 2002

Mère De Bursardine by Unknown Sire

Bursardine 1901 by James Watt (Tipple Cider)

La Petteviniere by Bemecourt (Tipple Cider)

Fleur De Mai by Koenigsberg

Nuit De Mai by Enfant De Troupe (Belle Poule)

La Petteviniere F by Tamerlan (Mambrino Patchen)

Idole Petteviniere by Quito (Belle Poule)

Ton Idole by Vasco (Perce Neige, Belle Poule)

Fan Idole by Le Ham (Belle Poule)

She starts off auspiciously with James Watt then adds Sir Quid Pigtail via Bemecourt, Intermede and Belle Poule through Enfant de Troupe, Mambrino Patchen

from Tamerlan's second dam Pollyanna, an American mare, Intermede again and his full brother Jongleur from Quito, then a double to Perce Neige plus another double to Belle Poule from Vasco to complete a power packed maternal line. Her sire Le Ham has but the one trace to Belle Poule through his second dam by Ogaden, but it is a good one.



Above: The French Champion Kaisy Dream will stand in Canada in 2003, perhaps leading the way for a new generation of trotters combining the American and French bloodlines. The dam of Kaisy Dream combines Adioo, Kathleen, Hatteras and Oniska from her sire with the French sources of Belle Poule, Gladys and Perce Neige maternally. Source: Annuaire des Etalons Trotteurs 2003

The impact of the X-factor on French breeding is no different from that on North American or Australasian breeding or anywhere else in the world. The maternal identity appears to be the key to success regardless of the sire involved. The proof is evident in every country where Standardbreds are raced.

		<i>Quinio</i>	<i>Hernani III</i>	Ontario
	<i>Kerjacques</i>		<i>Germaine</i>	Odessa
			<i>Loudeac</i>	Phoenix (f)
		<i>Arlette III</i>	<i>Maggie II</i>	Lysistrata
	<i>Beausejour II</i>		<i>Quiroga II</i>	Bolero
t,6,1:18		<i>Banco III</i>		Bonne Fortune
	<i>Magicienne</i>		<i>Sonate</i>	Fidus
		<i>Villette</i>	<i>Mousko Williams</i>	Dedette II
	<i>Le Ham</i>			Calumet Delco
t,7,1:175		<i>Ferrante M</i>	<i>Quio M</i>	Femina III
		<i>Quel Bonheur JV</i>	<i>Simoun M</i>	Gael
		<i>Sfax</i>	<i>Bourrasque M</i>	Héroine B
	<i>Franceville</i>		<i>Fool Flyer</i>	Sam Williams
		<i>Ogaden</i>	<i>Helena II</i>	Carlotta
	<i>Drouaise</i>		<i>The Great McKinney</i>	Net Worth
		<i>Patricia</i>	<i>Uranie</i>	Io IV
t,1.13.4		<i>Loudeac</i>	<i>Passeport</i>	Net Worth
	<i>Fandango</i>		<i>Circe II</i>	Io IV
		<i>Tombelaine</i>	<i>Bolero</i>	Neron M
	<i>Vasco</i>		<i>Bonne Fortune</i>	Fantasque
		<i>Quiroga II</i>	<i>Javari</i>	Quo Vadis
	<i>Kyrielle II</i>		<i>Verviene</i>	Queen Elisabeth
		<i>Elide</i>	<i>Calumet Delco</i>	Ultimatum
	<i>Ton Idole</i>			Sfax II
		<i>Carioca II</i>	<i>Femina III</i>	Arion McKinney
	<i>Quito</i>		<i>Odoacre</i>	Virginia Dangler
		<i>Arlette III</i>	<i>Toquade</i>	Intermede
	<i>Idole Petteviniere</i>		<i>Mousko Williams</i>	Pastourele
		<i>Tamerlan</i>	<i>Quovaria</i>	Helder
	<i>La Petteviniere F</i>		<i>Loudeac</i>	Hermione 1907
			<i>Maggie II</i>	Jour D'espoir
		<i>Nuit De Mai</i>	<i>Sam Williams</i>	Junon II
			<i>Jicky</i>	Koenigsberg
			<i>Enfant De Troupe</i>	Odette
			<i>Fleur De Mai</i>	Jongleur
				Querelleuse
				Quo Vadis
				Reluisante
				Jongleur
				Rosa
				Peter The Brewer
				Dillcisco
				Enoch
				Quasquara
				Gael
				Femina III
				Kriss
				Monarchie
				Sam Williams
				Carlotta
				Javari
				Champagne III
				Bolero
				Bonne Fortune
				Fidus
				Dedette II
				Peter Scott
				Blitzie
				Tilly
				Pollyanna
				Quo Vadis
				Olga
				Koenigsberg
				La Petteviniere

The dam of Fan Idole has multiple traces to **Belle Poule** as well as a double to **Perce Neige** through Quiroga II

		<i>Stars Pride</i>	<i>Worthy Boy</i>	Volomite
			<i>Stardrift</i>	Warwell Worthy
	<i>Florestan</i>		<i>Atus II</i>	Mr Mcelwyn
			<i>Jalna IV</i>	Dillcisco
			<i>Carioca II</i>	Hernani III
			<i>Arlette III</i>	Juignettes
			<i>Hermes D</i>	Kairos
			<i>Hautecombe</i>	Sa Bourbonnaise
			<i>Stars Pride</i>	Mousko Williams
			<i>Thankful</i>	Quovaria
			<i>Jamin</i>	Loudeac
			<i>Isesia</i>	Maggy II
			<i>Ura</i>	Kairos
			<i>Strada</i>	Sa Bourbonnaise
			<i>Caprior</i>	Loudeac
			<i>Querida VI</i>	Maggy II
			<i>Speedster</i>	Worthy Boy
			<i>Scotch Love</i>	Stardrift
			<i>Florican</i>	Hoot Mon
			<i>Worth A Plenty</i>	Magnolia Hanover
			<i>Worthy Boy</i>	Abner
			<i>Stardrift</i>	Dlady
			<i>Hoot Mon</i>	Loudeac
			<i>Missey</i>	Sesia
			<i>Dean Hanover</i>	Carioca II
			<i>Leading Lady</i>	Gelinotte
			<i>The Great Mckinney</i>	Jamin
			<i>Uranie</i>	Etchida
			<i>Duc De Normandie II</i>	Feu Follet X
			<i>Sorbonne</i>	Ninia
			<i>Odoacre</i>	Ecusson
			<i>Gracieuse VII</i>	Etoile I V
			<i>Hernani III</i>	Rodney
			<i>Gladys</i>	Mimi Hanover
			<i>The Great Mckinney</i>	Victory Song
			<i>Uranie</i>	Selka Scot
			<i>Dillcisco</i>	Spud Hanover
			<i>Scotland</i>	Florimel
			<i>Missey</i>	Darnley
			<i>Dean Hanover</i>	Sparkle Plenty
			<i>Leading Lady</i>	Volomite
			<i>The Great Mckinney</i>	Warwell Worthy
			<i>Uranie</i>	Mr Mcelwyn
			<i>Dillcisco</i>	Dillcisco
			<i>Scotland</i>	Scotland
			<i>Missey</i>	Dean Hanover
			<i>Leading Lady</i>	Gracieuse VII
			<i>The Great Mckinney</i>	Hernani III
			<i>Uranie</i>	Gladys
			<i>Sam Williams</i>	The Great Mckinney
			<i>Carlotta</i>	Uranie
			<i>Farceur X</i>	Sam Williams
			<i>Voila Sunshine</i>	Carlotta
			<i>Quel Veinard</i>	Farceur X
			<i>Undecima</i>	Voila Sunshine

The dam of Kaisy Dream carries **Adioo**, **Oniska**, **Hatteras** and **Kathleen** through Speedy Somolli and doubles to **Gladys/Perce Neige** and **Belle Poule** through Kravotte. All eight principal sire lines in the pedigree trace to North American Sires.

ITALY

This country has imported more horses of high caliber from North America than any other in Europe. French bloodlines are also very popular in Italy and you can even find Swedish bloodlines in recent years making the Italian breeding scene one of the most cosmopolitan in the world.

Racing in Italy became popular in the late 1800's where the competing horses were mostly of mixed Thoroughbred, French and Russian stock. These were in Hervey's words "*made*" trotters as opposed to the "natural" trotters soon to be available from the rapid evolution of the trotter in North America. The interest in Europe generally was triggered by the racing exploits of Maude S, that daughter of Pilot Jr who broke the 2:10 barrier and set the world record in 1880, a record that seemed incredible to European horsemen.

Among the first exports to Italy were Elwood Medium by Happy Medium and the mare Belle Oakley by the appropriately named sire Garibaldi, soon to be followed by Atlantic, one of the best sons of Almont.

By the turn of the century the demand for American trotting blood was all but satisfied as a result of the fast development of the breed in Italy and elsewhere resulting from the introduction of American

bloodlines. Among the sires that have been a large part of the development of trotting in Italy are Truax, Onward Silver and perhaps most of all, The Laurel Hall. This sire, whose daughters have become such a vital part of the maternal identity in Italy as well as in Sweden, has a dam that is a double copy to both American Star and Mambrino Patchen.

The center of Italian trotting is the northern city of Milan where the breed registry is maintained by ANACT on behalf of the industry.

The top performer bred in Italy is World Champion Varenne, an interesting study for those who follow the X-factor connections.



Varenne became the fastest trotter ever in a race with a crushing defeat of the best older trotters in North America in 1.51.1.. Source: Annuaire des Etalons Trotteurs 2002

Varenne is by Waikiki Beach, a son of Speedy Somolli, exported to stand in Italy. The pedigree of Waikiki Beach is almost totally North American.

Varenne's dam is a mare called Ialmaz by Zebu from Baree. With names like that you would expect some foreign blood to show up but on closer inspection we find that all eight grandsires of the dam are also of North American lineage. There is a French connection maternally in the dam of Sharif Di Iesolo, the grandsire of Ialmaz, but in a position that likely has little bearing on the outcome of this pedigree.

Sharif Di Iesolo was an Italian bred stallion by Quick Song, a son of Victory Song, exported to Italy in the mid 1900's. Sharif's dam was by Gi, a son of Kairos and therefore a grandson of The Great McKinney who was exported to France from the States in the 1920's. Interestingly the second dam of Sharif Di Iesolo was also by Kairos.

As I have noted earlier Kairos and his full brother Ogaden, besides establishing sire lines in France, have become key players in the maternal lines of successful French breeding. Odile de Sassy, the dam of Sharif De Iesolo was, in fact, a double copy to Belle Poule through the full brothers Intermede and Jongleur and her dam, in turn also doubled up Intermede thus providing this former champion trotter his strong maternal identity.

Ialmaz is by Zebu, an Italian bred son of Sharif Di Iesolo from the Hickory Pride mare Keystone Lady. This makes her a double copy to Hatteras since her fourth dam is by Dean Hanover, sire also of the dam of Hickory Pride. In an earlier chapter we discussed the influence of Mambrino Patchen in Varenne's maternal identity and the fact that Hatteras is extensively inbred to Mambrino Patchen. In addition to Hatteras, Zebu has a second dam by Rodney and thus the trigger mare Margaret Parrish.

The second dam Baree, being by Speedy Crown from a mare by Stars Pride, is a double copy to San Francisco and thus Oniska as well as being a double copy to Kathleen. As noted earlier San Francisco is a major maternal influence on the continent of Europe as we see again here since Varenne's third dam Spree Hanover is also a double to San Francisco.

You can readily see the powerful X-factor influence built up in Varenne's maternal family that finally found its outlet in a World Champion.

The fastest Italian born female trotter is Ruth Bi in a kilometer rate of 1:11.9, approximately equal to a mile rate of 1:55.4. The richest is Penelope Dei who earned the equivalent of about \$1.5 million. These two mares are interesting examples of the double copy phenomenon.

			<i>Speedster</i>	Rodney
			<i>Scotch Love</i>	Mimi Hanover
			<i>Florican</i>	Victory Song
			<i>Worth A Plenty</i>	Selka Scot
			<i>Worthy Boy</i>	Spud Hanover
			<i>Stardrift</i>	Florimel
			<i>Hoot Mon</i>	Darnley
			<i>Lark Hanover</i>	Sparkle Plenty
			<i>Worthy Boy</i>	Volomite
			<i>Stardrift</i>	Warwell Worthy
			<i>Rodney</i>	Mr Mcelwyn
			<i>Bewitch 1950</i>	Dillcisco
			<i>Hoot Mon</i>	Scotland
			<i>Beverly Hanover</i>	Missey
			<i>Diller Hanover</i>	Dean Hanover
			<i>Hoot Nimble</i>	Leading Lady
			<i>Victory Song</i>	Volomite
			<i>Lucile Spencer</i>	Warwell Worthy
			<i>Gi</i>	Mr Mcelwyn
			<i>Herodiade De Grandchamp</i>	Dillcisco
			<i>Stars Pride</i>	Spencer Scott
			<i>Misty Hanover</i>	Earls Princess Martha
			<i>Rodney</i>	Volomite
			<i>Fan Siskiyou</i>	Bexley
			<i>Speedster</i>	Scotland
			<i>Scotch Love</i>	Missey
			<i>Florican</i>	Mr Mcelwyn
			<i>Worth A Plenty</i>	Hanovers Bertha
			<i>Worthy Boy</i>	Stars Pride
			<i>Stardrift</i>	Dream Hanover
			<i>Rodney</i>	Hoot Mon
			<i>Odile De Sassy</i>	Nimble Colby
			<i>Hickory Pride</i>	Volomite
			<i>Lady Frost</i>	Evensong
			<i>Sharif Di Jesolo</i>	Averill
			<i>Quick Song</i>	Miss Wayne Spencer
			<i>Clever Diller</i>	Kairos
			<i>Blaze Hanover</i>	Ultra Gentille
			<i>Pillow Talk</i>	Kairos
			<i>Odile De Sassy</i>	Altesse De Grandchamp
			<i>Hickory Pride</i>	Worthy Boy
			<i>Lady Frost</i>	Stardrift
			<i>Sharif Di Jesolo</i>	Dean Hanover
			<i>Quick Song</i>	Twilight Hanover
			<i>Odile De Sassy</i>	Spencer Scott
			<i>Hickory Pride</i>	Earls Princess Martha
			<i>Lady Frost</i>	Spud Hanover
			<i>Sharif Di Jesolo</i>	Lu Roya Mcelwyn
			<i>Odile De Sassy</i>	Rodney
			<i>Hickory Pride</i>	Mimi Hanover
			<i>Lady Frost</i>	Victory Song
			<i>Sharif Di Jesolo</i>	Selka Scot
			<i>Odile De Sassy</i>	Spud Hanover
			<i>Hickory Pride</i>	Florimel
			<i>Lady Frost</i>	Darnley
			<i>Sharif Di Jesolo</i>	Sparkle Plenty
			<i>Odile De Sassy</i>	Volomite
			<i>Hickory Pride</i>	Warwell Worthy
			<i>Lady Frost</i>	Mr Mcelwyn
			<i>Sharif Di Jesolo</i>	Dillcisco
			<i>Odile De Sassy</i>	Scotland
			<i>Hickory Pride</i>	Missey
			<i>Lady Frost</i>	Dean Hanover
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Penelope Dei is by Super Bowl from a mare by Arnie Almahurst and is thus wholly American bred. She is a double copy to Margaret Parrish through her son Protector on both sides of the pedigree. She also has doubles to both Oniska and Adioo from her sire and the sire of her dam.

Her maternal family is Jessie Pepper and it is through Roya McKinney that she gets her X-factor beginnings.

Penelope Dei by Super Bowl (Adioo, Oniska, Margaret Parrish)
Worth Saving by Arnie Almahurst (Adioo, Oniska, Margaret Parrish)
Susan Gallon by Bill Gallon (American Star, Miss Russell)
Frosty Morn by Scott Frost (American Star, Mambrino Patchen)
La Reine Key by Long Key (American Star, Mambrino Patchen)
La Reine by Peter Scott (American Star, Kate by Pilot Jr)
La Roya by Guy Axworthy (American Star, Mambrino Patchen)
Roya Mckinney by Mckinney (Tiger)
Princess Royal by Chimes
Estabella by Alcantara (Mambrino Patchen)
Annabel by George Wilkes
Jessie Pepper by Mambrino Chief

As is typical of so many European top performers the double to Oniska and San Francisco is the first time it appears in the pedigree. Prior to the breeding to Super Bowl she had failed with sires such as Nevele Diamond (Adioo but no Oniska), Lindys Crown (Oniska but no Adioo or Margaret Parrish) and Bonefish (Adioo but no Oniska or Margaret Parrish). Her second best, and fastest performer was also by Super Bowl while her third best was by Baltic Speed who also carries Adioo, Oniska and Margaret Parrish

Ruth Bi is a mixture of American, French and Italian bloodlines. Her sire is Darif Effe by the Italian bred Sharif di Iesolo, a descendent of Volomite. Darif Effe's dam is Mystic Blue Chip by Hickory Pride who carries the legacy of Hatteras but more importantly Darif Effe's maternal line traces directly to Margaret Parrish. Ruth Bi's dam is French bred and her dam is a double copy to the primary source of the French X-factor in Belle Poule. Her second dam is a double copy to Perce Neige. Her third dam is a double to Belle Poule through her sons Intermede and Jongleur and her fourth dam is by Ogaden, son of the champion mare Uranie discussed earlier.

Ruth Bi by Darif Effe (Hatteras, American Star, Kate by Pilot Jr)
Equilola Effe by Quioco (Belle Poule)
Lolita by Valmont (Belle Poule, Perce Neige)
Talisca by Kerjacques (Belle Poule)
Colombe I I by Ogaden (Belle Poule)
Nocturne by Hellenvilliers (Belle Poule)
Femina I I I by Enoch
Quasquara by Fortunio
Junon by Benjamin (Perce Neige)

The buildup of Belle Poule in the French dam is extensive and coupled with the double to Perce Neige it has prepared Equilola Effe for great things as a broodmare.

Two excellent racemares with entirely different maternal identities that trace back to the same origins of the X-factor.

GERMANY

Germany's greatest son currently racing is Abano As, winner of the 2003 Prix d'Amerique. This son of Dylan Lobell is double line bred to Speedster and to Stars Pride but more importantly his dam is a double copy to Adioo, as is his second dam that is also a double copy to Margaret Parrish, and from the maternal family of Midnight to put the icing on the cake.



Above : Abano As winning the Criterium Continental in Vincennes. He became only the second German sired winner of the Prix d'Amerique. Source: Newstrot

German breeding has followed much the same time line as that of Italy and as in that country it has depended upon North American bloodlines extensively since the early 1900's. Prior to that time the bloodlines of trotting

were, as in Italy also, primarily a mixture of Russian Orlov, French and Thoroughbred.

The first recorded races took place in Hamburg, north Germany, in 1874 using a 1600 metre track. The times for the races over the approximately one mile distance ranged between 3 ½ to 4 minutes according to the *History of Racing in North Germany* written by Franz Joseph Feldmann. The Berlin Racing Club was founded three years later in 1877. The German Stud Book was first issued in 1888 and listed 39 farms, 174 broodmares and 218 other horses considered to meet the kilometer standard of 1:50. Of the horses listed there were 52 foaled in North America and 22 in Russia. By 1902 the number of American foaled entries to the studbook peaked at 149 and then declined as German breeds became more plentiful.

Count Bismarck founded the German equivalent of the French National Stud in 1890 in Lilienhof, near Baden, and stallions from a number of breeds were made available by the farm under its mandate to improve German breeding. In addition to American, Russian and French trotters there were Holsteiner, Hanoverian, East Prussian and Oldenburg breeds.

The early acquisitions by the farm, known as the Haupttrabergestut Lilienhof, included American sires such as Independence by Gen. Knox who was of Morgan descent, and Lecturer by Electioneer. Later

came important additions such as Longino by Allerton. and Dark Night by Alcyone.

In 1890 a horse called Lump, an Inlander, as the native bred horses were called, held the record for German bred. He was the first to beat 1:40 as he trotted a kilometer rate of 1:38.9, a 2:38 mile rate. The mare Brunhilde dropped the record to 1:32.4 four years later and by 1900 the records showed 61 horses better than 1:40. The first 1:20 trotter (mile rate 2:08.3) came in 1927 by the name of Schimmel Karneval. Nothing is given about the pedigrees of these horses.

In addition to this statistical information Feldmann describes with awe the exhibition races of World Champion Lou Dillon, the first sub 2:00 trotter, as he trotted at full speed accompanied by two Thoroughbreds over the Berlin track in May of 1909.

The real onslaught of speed in German trotting came with the arrival of Permit on the scene in 1952 with a record of 1:17.3, the first trotter under 2:05 mile rate in Germany. Permit was a national hero and his development from his ancestral mother Mary Mac parallels the evolution of trotting in Germany since it is the family of Mary Mac that permeates the bloodlines in Germany through that period.

Mary Mac was an American bred foal of 1903 by Constenaro. from Bertine by Elyria. Her breeding

carries nothing special to fit her for the role she played in German trotting since there are no apparent traces to Diomed in her maternal lines although the names of Pilot Jr and Mambrino Patchen are present as sires in her pedigree and Mary Mac's sire, Constenaro, is by Constantine, the full brother to Hatteras

She had eight foals, including five daughters, one of which was Maienlieb by Brilon, an import from America and a descendent of Hambletonian through Electioneer via Bingen. Brilon carries American Star from the sire of his dam. Maienlieb produced Maiennacht by Harvest Day who introduced the line to Pilot Jr, American Star and Mambrino Patchen in one serving and she went on to have 16 foals including Maienpracht by The Great Midwest. That sire was a full brother to Peter Volo, and also a carrier of both Mambrino Patchen and American Star. Maienpracht thus was a double copy to both sources and she became the dam of Permit.

Maienpracht by The Great Midwest (American Star, Mambrino Patchen)

Maiennacht by Harvest Day (American Star, Mambrino Patchen, Kate)

Maienlieb by Brilon (American Star)

Mary Mac by Constenaro

Bertine by Elyria

Belle Bayard by Bayard

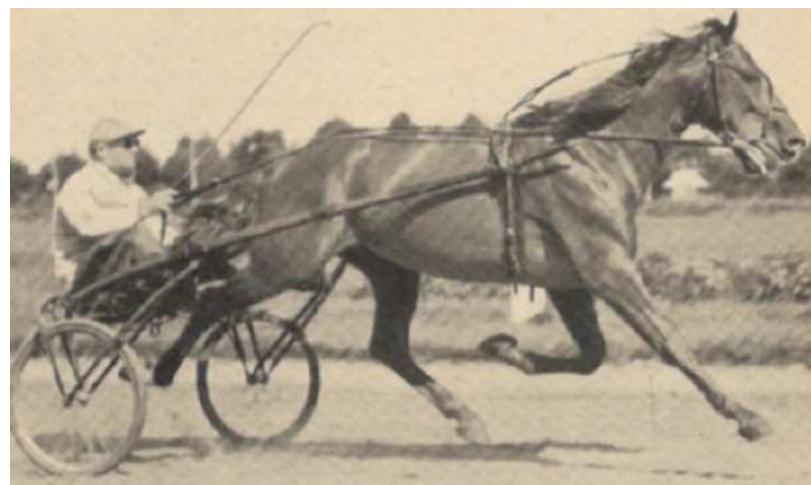
Belle Larkin by Joe L

Permit's sire was Epilog and he was from the same family, being a son of Maienlieb's half sister Mary H.

		<i>Lee Axworthy</i>	<i>Guy Axworthy</i>	Axworthy
	<i>Lawful</i>	<i>Sister Hattie</i>	<i>Gaiety Lee</i>	Lillian Wilkes
	<i>Legality</i>	<i>Bingen</i>	<i>Peter The Great</i>	Bingen
	<i>Rhein Lass</i>	<i>Mokomo</i>	<i>Hattie Lynwood</i>	The Gaiety Girl
	<i>Epilog</i>	<i>Azur</i>	<i>May King</i>	Pilot Medium
	<i>Mary H</i>	<i>Issy Les Moulineaux</i>	<i>Young Miss</i>	Santos
	<i>Mary Mac</i>	<i>Algerienne</i>	<i>Moko</i>	Lynwood W
Permit	<i>Constenaro</i>	<i>Chaperone</i>	<i>Juvigny</i>	Hattie Fowler
	<i>Bertine</i>	<i>Juvigny</i>	<i>Plaisance</i>	Electioneer
	<i>Pilot Medium</i>	<i>James Watt</i>	<i>James Watt</i>	May Queen
	<i>Santos</i>	<i>Africaine</i>	<i>Africaine</i>	Young Jim
	<i>Nervolo</i>	<i>Constantine</i>	<i>Constantine</i>	Miss Mambrino
	<i>Josephine Knight</i>	<i>Lady Ethel</i>	<i>Lady Ethel</i>	Baron Wilkes
	<i>Daystar</i>	<i>Elyria</i>	<i>Elyria</i>	Queen Ethel
	<i>Harvest Day</i>	<i>Belle Bayard</i>	<i>Belle Bayard</i>	Expedition
	<i>Maiennacht</i>	<i>Happy Medium</i>	<i>Happy Medium</i>	Betsey Baker
	<i>Maienlieb</i>	<i>Tackey</i>	<i>Tackey</i>	Cherbourg
		<i>Grand Sentinel</i>	<i>Grand Sentinel</i>	Formosa
		<i>Shadow</i>	<i>Shadow</i>	Fuschia
		<i>Colbert</i>	<i>Colbert</i>	Rosiere
		<i>Nelly D</i>	<i>Nelly D</i>	Phaeton
		<i>Betterton</i>	<i>Betterton</i>	Dame D'honneur
		<i>Mambrino Beauty</i>	<i>Mambrino Beauty</i>	Cherbourg
		<i>Peter The Great</i>	<i>Peter The Great</i>	Ebene
		<i>Emily Ellen</i>	<i>Emily Ellen</i>	Wilkes Boy
		<i>Walnut Hall</i>	<i>Walnut Hall</i>	Kincora
		<i>Notelet</i>	<i>Notelet</i>	Nutwood Mambrino
		<i>Bingara</i>	<i>Bingara</i>	Elma
		<i>Kadiac</i>	<i>Kadiac</i>	Mambrino King
		<i>Constenaro</i>	<i>Constenaro</i>	Maggie Marshall
		<i>Bertine</i>	<i>Bertine</i>	Bayard
				Belle Larkin
				Hambletonian
				Princess
				Pilot Jr
				Jenny Lind
				Sentinel
				Maid Of Lexington
				Octoroon Jr
				Dixie
				Onward
				Queen B
				Allie Gaines
				Jenny
				George Wilkes
				Mother Lumps
				Mambrino King
				Allie Mambrino
				Pilot Medium
				Santos
				Todd
				Morning Bells
				Conductor
				Maggie Yeazer
				Moko
				Tablet
				Bingen
				Ligera
				Kremlin
				Unknown
				Constantine
				Lady Ethel
				Elyria
				Belle Bayard

Permit's dam and second dam are double copies to [American Star](#)

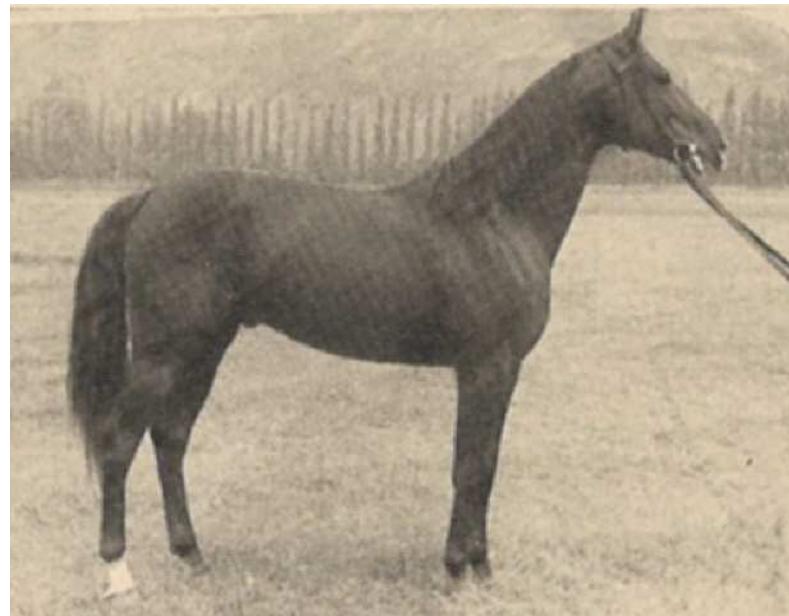
who was by the French sire Issy les Moulineaux. Permit was thus bred 3x4 to Mary Mac maternally. Issy les Moulineaux is interesting since he has Tipple Cider maternally as well as the North American trotter Miss Bell who accompanied Lady Pierce to France. She too carried American Star maternally.



Above: German champion Permit who became a national hero as the fastest horse of his day. Source : *Die Sucht des Renntrabers*

Another important sire in Germany from the same maternal line was Abend by Epilog from yet another granddaughter of Mary Mac by The Great Midwest called Evchen.

The leading sire in Germany as of this writing is Diamond Way, a grandson of Super Bowl whose third dam is by Permit. His pedigree is dominated by American Star as was that of Permit.



Right: Born in 1945, Permit took a record of 1:17.3, a mile rate of 2:04.2
Source : *Die Sucht des Renntrabers*

His dam was by Arden Al, an American bred by Jamie from a mare that carries a double copy to Adioo and American Star.

His second dam is by Io d'Amour, a French – German combination with a maternal line that has double to Mambrino Patchen and American Star again. The third dam is by Permit and the fourth by Muscletone, yet another double copy carrier of American Star. The fifth dam Ludowika also has a double to the same source plus three of Pilot Jr's daughters maternally in Kate, Waterwitch and Flora.

Diamond Way

Königskrone

Wallburg

Wallgunde

Arden Al

Armbo Gail

Io D Amour

The dam of Diamond Way carries [American Star](#) nine times.

Super Way

t,3,2:001m \$25922

Noble Gal

t,3,1:582m

Stars Pride

Super Bowl

t,3,1:562m

Pillow Talk

Stardrift

Rodney

Bewitch

Noble Victory

Victory Song

Emilys Pride

Sampson Hanover

Scotch Claire

Darnley

Molly Spencer

Kimberly Kid

Helicopter

Coquin D Amour

Bagatelle D

Permit

Bammeline

Worthy Boy

Volomite

Warwell Worthy

Mr Mcelwyn

Dillcisco

Spencer Scott

Earls Princess Martha

Volomite

Bexley 1944

Volomite

Evensong

Stars Pride

Emily Scott

Volomite

Irene Hanover

Scotland

Abbey Claire

Scotland

Fionne

Spencer

Molly Fant

Volomite

Kimberly Hanover

Hoot Mon

Tronia Hanover

Kama

La Vivandiere

Calumet Finery

Gloria Dear

Epilog

Maienpracht

Musclestone

Ludowika

Volomite

Warwell Worthy

Mr Volo

Cita Frisco

Peter The Brewer

Alma Lee

Guy Axworthy

Widow Maggie

San Francisco

Dilworthy

Scotland

May Spencer

Protector

Mignon

Peter Volo

Cita Frisco

Clever Hanover

Santos Express

Peter Volo

Cita Frisco

Nelson Dillon

Taffolet

Worthy Boy

Stardrift

Scotland

May Spencer

Peter Volo

Cita Frisco

Dillon Axworthy

Isotta

Peter Scott

Roya Mckinney

Guy Abbey

Jean Claire

Peter Scott

Roya Mckinney

High Noon

Princess Gay

Lee Tide

Petrex

Peter Chenault

Molly Knight

Peter Volo

Cita Frisco

Mr Mcelwyn

Irene Hanover

Scotland

Missey

Lawrence Hanover

Twilight Hanover

Sam Williams

Villageoise

Salam

Tradition (f)

Truax

My Rosebud

Walter Dear

Gloria Silk

Legality

Mary H

The Great Midwest

Maiennacht

Mr Meelwyn

Ruth M Chenault

Baka

Ludzina

DENMARK

The Danish trotting history is older than that of Sweden and Norway. The first race program was held at Viborg in 1831 and the first racecourse in Copenhagen was established at Lyngbyvejen in 1885. The Danish Trotting Society (Det Danske Travselskab) was founded in 1891, and the racecourse at Charlottenlund in Copenhagen was inaugurated in 1891. The classic races for 2, 3 and 4 year old horses have been held at Charlottenlund since 1896.

The winners of these first races were Clara Greenlander in the 4 year old race over 3150 metres in a kilometer rate of 1:49.5; Markus in the 2400 metre event for 3 year olds in 2:04.2 and Greenlander Boy with a kilometer rate of 2:04.1 in the two year old test over 1600m. The pedigrees of these horses are not known to me, nor are those of the drivers for that matter but since their names were Alfred Johnstone and William Gregor it is entirely likely that they, at least, were American bred.

The winners of the three Danish Classics in 2002 offer a variety of pedigrees but the same picture with respect to their X-factor connections. The 2 year old winner Herta Djuhm is a double copy to Margaret Parrish, a familiar pattern in today's filly champions, while the 3 and 4 year old winners, Giant Flamingo and Fraekke Frederik, both colts, had dams that were

first time doubles to Oniska via San Francisco, again a familiar pattern especially if Europe.

Herta Djuhm is by Sugarcane Hanover whose own dam was a double to Margaret Parrish through Protector. Herta Djuhm's maternal line goes back through Arabesque, herself a double copy to Margaret Parrish through her sire Scotch Victor, a great grandson of Margaret Parrish, and through her second dam Promised Land by Protector. This filly thus has four separate traces to Margaret Parrish in her pedigree as well as being a double to Hatteras and Oniska.

Herta Djuhm by Sugarcane Hanover

Yoursisnodisgrace by Supergill
Its Fanny by Speedy Crown
Evita by Bonefish
Escapade by Speedy Count
Arabesque by Scotch Victor (Margaret Parrish)
Fleeting Star by Dean Hanover
Promised Land by Protector (Margaret Parrish)
Miss Electra by Kuno
Kashmary by Mr McElwyn
Kashmir by Belwin
Sienna by Peter The Great
The Widow by Wilton
Maggie H by Homer
Lady Sentinel by Sentinel
Sally Sovereign by Montagus Sovereign

Maternal line of Herta Djuhm

Herta Djuhm is from the family of Sally Sovereign, the leading family of sub 1:55 trotting speed.

		<i>Speedy Scot</i>	<i>Speedster</i>	Rodney
		<i>Scotch Love</i>	<i>Scotch Love</i>	Mimi Hanover
		<i>Blaze Hanover</i>	<i>Victory Song</i>	Victory Song
		<i>Allie Song</i>	<i>Selka Scot</i>	Selka Scot
		<i>Victory Song</i>	<i>Hoot Mon</i>	Hoot Mon
		<i>Lura Hanover</i>	<i>Beverly Hanover</i>	Beverly Hanover
		<i>Florican</i>	<i>Peter Song</i>	Peter Song
		<i>Emily Star</i>	<i>Josephine Knight</i>	Josephine Knight
		<i>Worthy Boy</i>	<i>Volomite</i>	Volomite
		<i>Stardrift</i>	<i>Evensong</i>	Evensong
		<i>Rodney</i>	<i>Spencer Scott</i>	Spencer Scott
		<i>Bewitch</i>	<i>Sorceress 1933</i>	Sorceress 1933
		<i>Scotland</i>	<i>Spud Hanover</i>	Spud Hanover
		<i>Missey</i>	<i>Florimel</i>	Florimel
		<i>Dean Hanover</i>	<i>Stars Pride</i>	Stars Pride
		<i>Sorceress</i>	<i>Emily Scott</i>	Emily Scott
		<i>Worthy Boy</i>	<i>Volomite</i>	Volomite
		<i>Stardrift</i>	<i>Warwell Worthy</i>	Warwell Worthy
		<i>Rodney</i>	<i>Mr Mcelwyn</i>	Mr Mcelwyn
		<i>Bewitch</i>	<i>Dillcisco</i>	Dillcisco
		<i>Nevele Pride</i>	<i>Spencer Scott</i>	Spencer Scott
		<i>Exciting Speed</i>	<i>Earls Princess Martha</i>	Earls Princess Martha
		<i>Speedy Scot</i>	<i>Volomite</i>	Volomite
		<i>Lady Jamie</i>	<i>Bexley</i>	Bexley
		<i>Speedster</i>	<i>Peter Scott</i>	Peter Scott
		<i>Scotch Love</i>	<i>Roya McKinney</i>	Roya McKinney
		<i>Florican</i>	<i>Guy Abbey</i>	Guy Abbey
		<i>Worth A Plenty</i>	<i>Tilly Tonka</i>	Tilly Tonka
		<i>Nevele Pride</i>	<i>Dillon Axworthy</i>	Dillon Axworthy
		<i>Exciting Speed</i>	<i>Palestrina</i>	Palestrina
		<i>Speedy Scot</i>	<i>Volomite</i>	Volomite
		<i>Lady Jamie</i>	<i>Mystic</i>	Mystic
		<i>Speedster</i>	<i>Volomite</i>	Volomite
		<i>Scotch Love</i>	<i>Warwell Worthy</i>	Warwell Worthy
		<i>Florican</i>	<i>Mr Mcelwyn</i>	Mr Mcelwyn
		<i>Worth A Plenty</i>	<i>Dillcisco</i>	Dillcisco
		<i>Nevele Pride</i>	<i>Spencer Scott</i>	Spencer Scott
		<i>Exciting Speed</i>	<i>Earls Princess Martha</i>	Earls Princess Martha
		<i>Speedy Count</i>	<i>Volomite</i>	Volomite
		<i>Arabesque</i>	<i>Bexley</i>	Bexley
			<i>Stars Pride</i>	Stars Pride
			<i>Thankful</i>	Thankful
			<i>Speedster</i>	Speedster
			<i>Expresson</i>	Expresson
			<i>Speedster</i>	Speedster
			<i>Scotch Love</i>	Scotch Love
			<i>Jamie</i>	Jamie
			<i>Lady Ann Reed</i>	Lady Ann Reed
			<i>Rodney</i>	Rodney
			<i>Mimi Hanover</i>	Mimi Hanover
			<i>Victory Song</i>	Victory Song
			<i>Selka Scot</i>	Selka Scot
			<i>Spud Hanover</i>	Spud Hanover
			<i>Florimel</i>	Florimel
			<i>Darnley</i>	Darnley
			<i>Sparkle Plenty</i>	Sparkle Plenty
			<i>Stars Pride</i>	Stars Pride
			<i>Thankful</i>	Thankful
			<i>Speedster</i>	Speedster
			<i>Expresson</i>	Expresson
			<i>Speedster</i>	Speedster
			<i>Countess Song</i>	Countess Song
			<i>Scotch Victor</i>	Scotch Victor
			<i>Fleetling Star</i>	Fleetling Star

Herta Djuhm has double copies to **Manette**, **Oniska**, **Kathleen** and **Hatteras**.

Margaret Parrish appears twice on each side of her pedigree

Giant Flamingo is by Canadian bred Armbro Fame who is from the family of Hambletonian winner Armbro Flight. The dam of Giant Flamingo is the mare we are interested in, however, since she is the one carrying the “mail” in this successful delivery.

Lamarr is by Copperfield, as is the dam of the four-year-old winner Fraekke Frederik. Copperfield was a Danish bred with a dam by Lance Hanover whose dam was Laughing Brook by High Noon whose dam was by San Francisco in a classic zigzag trail from Oniska.

Lamarr's dam has a maternal family that starts with the essentially Thoroughbred mare Sophronia but takes three generations to get going until Nancy Lee brings American Star from her dam Dictator. Then follows the famous race mare Nancy Hanks, whose granddaughter Alema Guy by Guy Axworthy introduces Mambrino Patchen and American Star again. The next dam is by Volomite, who carries the San Francisco and Oniska trace, and the rest is taken care of by the same trace from Lamarr's sire.

Fraekke Frederik, as we noted, has a dam by Copperfield, a source of San Francisco and his dam, Moonshine, inherits the second trace from her second dam by Danish bred Kuno whose dam Sunny Morn was by San Francisco. The maternal family here goes back to Emeline, whose daughter Edith R, picked up

the mandatory American Star to start her family, then Peter The Great and Pilot Jr. along the way to Irma Edel and then another American Star and Manette from King Ben and finally to the San Francisco and Oniska trace through Kuno.

Moonshine by Copperfield (Oniska, American Star, Juliet)
Sunshine Mynderup by Lord Valentine (Hatteras, American Star, Juliet)
Irma Ornebjerg by Kuno (Oniska, American Star, Juliet)
Irma Edel by King Ben (Manette, American Star)
Unia Edel by Diamond Axworthy
Edelgunde by Morgan Axworthy
Cousin Edith by Peter The Great (Juliet by Pilot Jr)
Edith Worthy by Axworthy
Edith R by Monaco
Augusta Schuyler by Aberdeen (American Star)
Emeline by Henry B Patchen
Saladin Mare by Saladin

In Denmark there is a famous broodmare called Gertrud Toft, the third dam of Remington Crown, that country's most successful trotter ever.

Gertrud Toft is a double copy to San Francisco since her sire Kuno has a second dam by San Francisco and her second dam is by Sanguy whose dam is also by San Francisco. The dam of Remington Crown, Ecco G T, is by Pay Dirt, one of the top broodmare sires in Scandinavia and Pay Dirt's dam in turn combines Volomite and of course San Francisco, Emily Ellen, Margaret Parrish, Toddington, and Dillon Axworthy daughters in a who's-who of principal X-factor sources all leading back to Miss Russell.

		<i>Speedster</i>	<i>Rodney</i>	Spencer Scott
		<i>Mimi Hanover</i>	<i>Mimi Hanover</i>	Earls Princess Martha
		<i>Scotch Love</i>	<i>Victory Song</i>	Dean Hanover
		<i>Florican</i>	<i>Selka Scot</i>	Hanover Maid
		<i>Missile Toe</i>	<i>Spud Hanover</i>	Volomite
			<i>Florimel</i>	Evensong
			<i>Darnley</i>	Scotland
			<i>Sparkle Plenty</i>	Selka Guy
			<i>Volomite</i>	Guy McKinney
			<i>Warwell Worthy</i>	Evelyn The Great
			<i>Mr Mcelwyn</i>	Spencer
			<i>Dillcisco</i>	Carolyn
			<i>Scotland</i>	Scotland
			<i>Missey</i>	Fionne
			<i>Dean Hanover</i>	Worthy Boy
			<i>Leading Lady</i>	The Gem
			<i>Guy Mckinney</i>	Peter Volo
			<i>Evelyn The Great</i>	Cita Frisco
			<i>Spencer</i>	Peter The Brewer
			<i>Carolyn</i>	Alma Lee
			<i>Scotland</i>	Guy Axworthy
			<i>Missey</i>	Widow Maggie
			<i>Dean Hanover</i>	San Francisco
			<i>Leading Lady</i>	Dilworthy
			<i>Guy Mckinney</i>	Peter Scott
			<i>Evelyn The Great</i>	Roya McKinney
			<i>Spencer</i>	Guy Abbey
			<i>Carolyn</i>	Tilly Tonka
			<i>Scotland</i>	Dillon Axworthy
			<i>Missey</i>	Palestrina
			<i>Dean Hanover</i>	Guy Day
			<i>Leading Lady</i>	Evas Girl
			<i>Guy Mckinney</i>	Guy Axworthy
			<i>Evelyn The Great</i>	Queenly McKinney
			<i>Spencer</i>	Peter The Great
			<i>Carolyn</i>	Miss De Forest
			<i>Scotland</i>	Lee Tide
			<i>Mighty Margaret</i>	Petrex
			<i>Nibble Hanover</i>	Mr Mcelwyn
			<i>Isabel Hanover</i>	Harvest Gale
			<i>Volomite</i>	Peter Scott
			<i>Mazy Mcelwyn</i>	Roya McKinney
			<i>Umberto</i>	Volomite
			<i>Elsa Guy</i>	Margaret Castleton
			<i>Rex The Great</i>	Calumet Chuck
			<i>Sunny Morn</i>	Justissima
			<i>Pinero</i>	Dillon Axworthy
			<i>Stonerid Esmeralda</i>	Isotta
				Peter Volo
				Cita Frisco
				Mr Mcelwyn
				Mazy Watts
				Forest Fire
				Aertrud Kortuml
				Brother Guy
				Nantoon The Great
				Sandy Flash
				Marie The Great
				Tillworthy
				Summer Harvest
				Guy Day
				Pongee Silk
				San Guy
				Dorothy Foster

The dam of Remington Crown is a double copy to **Oniska** as is his third dam Gertrud Toft.
Remington Crown is from the maternal family of Miss Russell, 7th dam of Gertrud Toft

SWEDEN

The first trotting society in Sweden was the Varmland Trotting Society founded in 1882. Early racing was conducted on the ice of lakes and Fjords and the first racecourse was built in 1907 at Jagersro.

Solvalla, the country's biggest track located in Stockholm, was inaugurated in 1927, two years before the Swedish central trotting organization was formed and now known as STC (Svenska Travsportens Centralförbund). Solvalla is famous as the home of The Elitlopp, first held in 1952 and won by the German champion Permit.

The first studbook was issued in 1938 and one of the first sires imported to Sweden from America was Bulwark in 1937. His son Frances Bulwark was runner up in the first Elitlopp but came back to win it in 1953.

One of the most famous female names in Swedish racing is that of Queen L, winner of the Prix d'Amerique over male competition and of many other great races in her storied career. Her maternal line is one that goes back to a Danish mare called Rosabella whose sire was reputed to be "half Orlov". Rosabella's granddaughter called Rhitra was a famous racemare in her day in Denmark setting the record for two year olds and then for four year olds in that country.

Queen L by Crowntron

Attila L by Tibur
Asani I I by Frosty Hanover
Asani by Casino The Great
F F by Moore Dear
Senator Girl by Senator Ford
Hera by Alabama Bond
Roberta by Pelle
Rhitra by Prisrack
Frigga by Staerkodder
Rosabella by Frederiksborg Sire
Frederiksborg Mare by Unknown Sire

The maternal identity of Queen L is a combination of the contributions of sires born in five different countries. Her origins are in Denmark with the Frederiksborg mare Rosabella. Her half bred Orlov daughter by a Russian sire of unknown pedigree was in turn bred to the purebred Russian Orlov sire Prisrack to produce Rhitra. This mare was bred to the Norwegian born sire Pelle who was by American import Jordan from yet another Orlov dam.

From there the Americans take over with Alabama Bond, Senator Ford and Moore Dear responsible for the next three generations. Then back to Denmark with Danish bred Casino The Great, then the American sire Frosty Hanover, son of Stars Pride, then the French sire Tibur and finally Crowntron, a son of Speedy Crown.

Queen L is a double to Dillon Axworthy and Adioo as well as being a double to Spencer Scott and Kathleen.

		<i>Speedster</i>	<i>Rodney</i>	Spencer Scott Earls Princess Martha
		<i>Speedy Scot</i>	<i>Mimi Hanover</i>	Dean Hanover Hanover Maid
		<i>Scotch Love</i>	<i>Victory Song</i>	Volomite Evensong
		<i>Florican</i>	<i>Selka Scot</i>	Scotland Selka Guy
		<i>Missile Toe</i>	<i>Spud Hanover</i>	Guy McKinney Evelyn The Great
			<i>Florimel</i>	Spencer Carolyn
			<i>Darnley</i>	Scotland Fionne
			<i>Sparkle Plenty</i>	Worthy Boy The Gem
			<i>Spencer Scott</i>	Scotland May Spencer
			<i>Earls Princess Martha</i>	Protector Mignon
			<i>Nibble Hanover</i>	Calumet Chuck Justissima
			<i>Isabel Hanover</i>	Dillon Axworthy Isotta
			<i>Dean Hanover</i>	Dillon Axworthy
			<i>Esther Hanover</i>	Palestrina
			<i>Spencer Scott</i>	Guy McKinney Evelyn The Great
			<i>Martha Hanover</i>	Scotland May Spencer
			<i>Bolero</i>	Sandy Flash
			<i>Bonne Fortune</i>	Maralie
			<i>Javari</i>	Koenigsberg
			<i>Verviene</i>	Odette (f)
			<i>The Great Mckinney</i>	Jongleur
			<i>Uranie</i>	Querelleuse
			<i>Jakow</i>	Quo Vadis
			<i>Lucette</i>	Reluisante
			<i>Worthy Boy</i>	Jongleur
			<i>Stardrift</i>	Rosa
			<i>Spencer Scott</i>	Arion McKinney
			<i>Charlotte Hanover</i>	Virginia Dangler
			<i>Pastime</i>	Intermede
			<i>Marie The Great</i>	Pastourelle
			<i>Moore Dear</i>	Telemaque V
			<i>Senator Girl</i>	Braila
				Trianon
				Bidassoa
				Volomite
				Warwell Worthy
				Mr Mcelwyn
				Dillcisco
				Scotland
				May Spencer
				Peter Volo
				Miss Bertha Dillon
				Guy Axworthy
				Girlish Manners
				Peter The Great
				Marie Frances
				The Laurel Hall
				Blitzie
				Senator Ford
				Hera

Queen L is a double to **Kathleen** and to **Adioo**, she also has **Belle Poule** and **Perce Neige** through Tibur

Another great Swedish mare and also a winner of the Prix d'Amerique was Ina Scot who came out of nowhere in terms of her pedigree and her family history. Until she came along there was nothing to indicate she would be as special as she was, that is if you did not know about the X-factor.

Ina Scot by Allen Hanover (Oniska, Kathleen)

Lovina Grefgaard by Mad Scot (Oniska, Kathleen)

Lovisa by Lowton (Double of Belle Poule)

Miss Uhleen Asa by Steadfast (Am. Star, M. Patchen)

Miss Uhleen Brooke by Justice Brooke (Am. Star, M. Patchen)

Uhlen by Bingen

Blondelle by Sir Walter Jr.

Brunette by Mambrino Chief

Miss Uhleen Brooke starts this family off with Justice Brooke carrying Guy Wilkes and his American Star – Mambrino Patchen combination. Steadfast brings the same package in a special way since his dam is also by Justice Brooke making Miss Uhleen Asa inbred 3x2 to that sire maternally.

Lowton is a French sire and he brings a double to Belle Poule from his maternal lines. Ina Scot's dam is by Mad Scot whose dam is by Stars Pride with Oniska and third dam is by Spencer with Kathleen.

The package is completed with Allen Hanover also carrying Oniska and Kathleen as well as Margaret Parrish and Adioo.

The current top mare in Sweden is Hilda Zonett who is approaching millionaire status in dollar terms. Her maternal package is full of surprises and contains just about every possible trace to the X-factor it is possible to have.

Her fifth dam is a French mare by an American sire called Net Worth. His dam is a double to Mambrino Patchen and also carries American Star. Net Worth is from the maternal family of Nannie Etticoat, family of Varenne.

The fourth dam is by Quebec VIII, a carrier of Belle Poule. The next dam is by Voronoff whose dam has a double copy to Belle Poule. Next comes another French sire in Quirinius III and he supplies Perce Neige as well as American Star and Manette since the sire of his dam has a third dam, Maxworthy, which is American and coincidentally is by Judge Maxey also from the family of Nannie Etticoat.

Hilda Zonett's dam is by Nestoriac, another French sire, who also carries Net Worth and Nannie Etticoat, as well as Belle Poule and Perce Neige making Via de Vrie a double copy to all three. Nestoriac's maternal lines also contain the American mare Pollyanna with Mambrino Patchen. This was a power packed maternal lineup indeed that had a predictable result on the track.

Hilda Zonett

t,1:127 SEK 764250

Via De Vrie

Via de Vrie is a double copy to **Belle Poule**, **Perce Neige** and to the legacy of Nannie Etticoat, the maternal family of Varenne
Nannie Etticoat was also a feature of the pedigree of Queen L as were Belle Poule and Perce Neige

<i>Speedy Crown</i>	<i>Speedy Scot</i>	<i>Speedster</i>	Rodney
<i>Speedy Somolli</i>	<i>Scotch Love</i>	<i>Mimi Hanover</i>	Mimi Hanover
t,3,1:55m	<i>Florican</i>	<i>Victory Song</i>	Victory Song
<i>Somolli</i>	<i>Worth A Plenty</i>	<i>Selka Scot</i>	Selka Scot
Spotlite Lobell	<i>Worthy Boy</i>	<i>Spud Hanover</i>	Spud Hanover
t,3,1:541m \$635000	<i>Stardrift</i>	<i>Florimel</i>	Florimel
	<i>Hoot Mon</i>	<i>Darnley</i>	Darnley
	<i>Laurita Hanover</i>	<i>Sparkle Plenty</i>	Sparkle Plenty
	<i>Galophone</i>	<i>Volomite</i>	Volomite
<i>B F Coaltown</i>	<i>Bill Gallon</i>	<i>Warwell Worthy</i>	Warwell Worthy
<i>Spotlite Hill</i>	<i>Carophone</i>	<i>Mr Mcelwyn</i>	Mr Mcelwyn
t,2,2:011m	<i>Rodney</i>	<i>Dillcisco</i>	Dillcisco
	<i>Poplar Sis</i>	<i>Scotland</i>	Scotland
<i>Sweeping Light</i>	<i>Rodney</i>	<i>Missey</i>	Missey
	<i>Mimi Hanover</i>	<i>Dean Hanover</i>	Dean Hanover
	<i>Worthy Boy</i>	<i>Leading Lady</i>	Leading Lady
	<i>Vestas Pride</i>	<i>Sandy Flash</i>	Sandy Flash
	<i>Quinio</i>	<i>Calumet Aristocrat</i>	Calumet Aristocrat
	<i>Arlette III</i>	<i>Phonograph</i>	Phonograph
<i>Derjacques</i>	<i>Hector IV</i>	<i>Carolyn</i>	Carolyn
Nestoriac	<i>Unias</i>	<i>Spencer Scott</i>	Spencer Scott
t,1:189	<i>Ogaden</i>	<i>Earls Princess Martha</i>	Earls Princess Martha
	<i>Vestale De Grandchamp</i>	<i>Volomite</i>	Volomite
Clef Des Champs	<i>Tigre Royal</i>	<i>Betty Mcelwyn</i>	Betty Mcelwyn
	<i>Lavandiere II</i>	<i>Spencer Scott</i>	Spencer Scott
	<i>Quinio</i>	<i>Earls Princess Martha</i>	Earls Princess Martha
	<i>Olette</i>	<i>Dean Hanover</i>	Dean Hanover
	<i>Kankan II</i>	<i>Hanover Maid</i>	Hanover Maid
	<i>Mimi Pinson III</i>	<i>Volomite</i>	Volomite
<i>Quirinus III</i>	<i>Janus</i>	<i>Warwell Worthy</i>	Warwell Worthy
Kama De Vrie	<i>La Canadienne</i>	<i>Spencer</i>	Spencer
	<i>Quebec VIII</i>	<i>Vesta Hanover</i>	Vesta Hanover
	<i>Douce Auvergne</i>	<i>Hernani III</i>	Hernani III
	<i>Objection</i>	<i>Germaine</i>	Germaine
	<i>Voronoff</i>	<i>Benjamin III</i>	Benjamin III
		<i>Sola</i>	Sola
		<i>Quo Vadis</i>	Quo Vadis
		<i>Union</i>	Union
		<i>Dixmude</i>	Dixmude
		<i>Esmeralda III</i>	Esmeralda III
		<i>Quo Vadis</i>	Quo Vadis
		<i>Dynamo</i>	Dynamo
		<i>Passeport</i>	Passeport
		<i>Euelase</i>	Euelase
		<i>Jean Sans Peur</i>	Jean Sans Peur
		<i>Bell Dora</i>	Bell Dora
		<i>Net Worth</i>	Net Worth
		<i>Io I V</i>	Io I V

NORWAY

Up until the mid 1920's the Norwegian Coldblood was the racehorse of choice in Norway. Long used as a draft and agricultural horse, the trotting version had evolved into a lighter faster trotter as a result of crosses to English thoroughbreds imported in the late nineteenth century.

The arrival of the “*warmblood*” trotters from North America, with the importation of Jordan in 1896, changed trotting races in Norway dramatically as the slower coldbloods could not compete with their swifter Standardbred opponents. Coldblood racing and breeding has survived, however, as a result of the fierce national pride of the Norwegians for their own breed.

Today there are still as many coldbloods bred in Norway as there are Standardbreds and races are held for both breeds on the same programs. With their bushy manes, stocky build and feathered legs, the Norwegian Coldblood could never be mistaken for the taller more streamlined Standardbred and there is another major difference. Coldbloods are “*made*” trotters and not born that way. The key to success is through a lot of hard physical work. As a result their careers as racehorses prove to be longer on average and many times they are at their best between their sixth and tenth years of age and they are allowed to race till age sixteen.

One of the most famous of Norwegian Coldbloods is the stallion Alm Svarten who won 189 races over a thirteen year career that netted his owners over \$1.5 million. He has gone on to a stud career that produced, among many good horses, the mercurial Atom Vinter, a yellow dun stallion with typical physical characteristics although not so typical in colour.

There is a network of country tracks at which Coldbloods are raced in addition to their appearances at the larger city tracks. The Coldblood is still very much a part of the country lifestyle of Norway with many of them bred, trained and raced by their farming owners.

Standardbred racing in Norway is not as advanced as in Sweden since the early emphasis was on Coldblood trotters. The first Norwegian Stud Book was published in 1947 and the Norwegian breeds made up only 8.5% of the listings. The most recent edition shows Norwegian breeds as 65.7% of the horses registered.

The maternal identity of the Norwegian Standardbred is essentially North American and Swedish with recent contributions from Denmark and France.

The richest racemare bred in Norway is Spellbound, a daughter of Spellcaster from an American mare called Neils Katie. She is a double copy to Kathleen as is her dam and third dam.

The Norwegian Coldblood stallion Atom Vinter. Source - Hoofbeats



Bork Rigel

t,12,1:204 NOK 1750000

Linsi

Melnes Tara

Eldon

Sentan

Eli Spent

Donno

Nilen

Oleanne

Molynstjerna

Alm Rigel

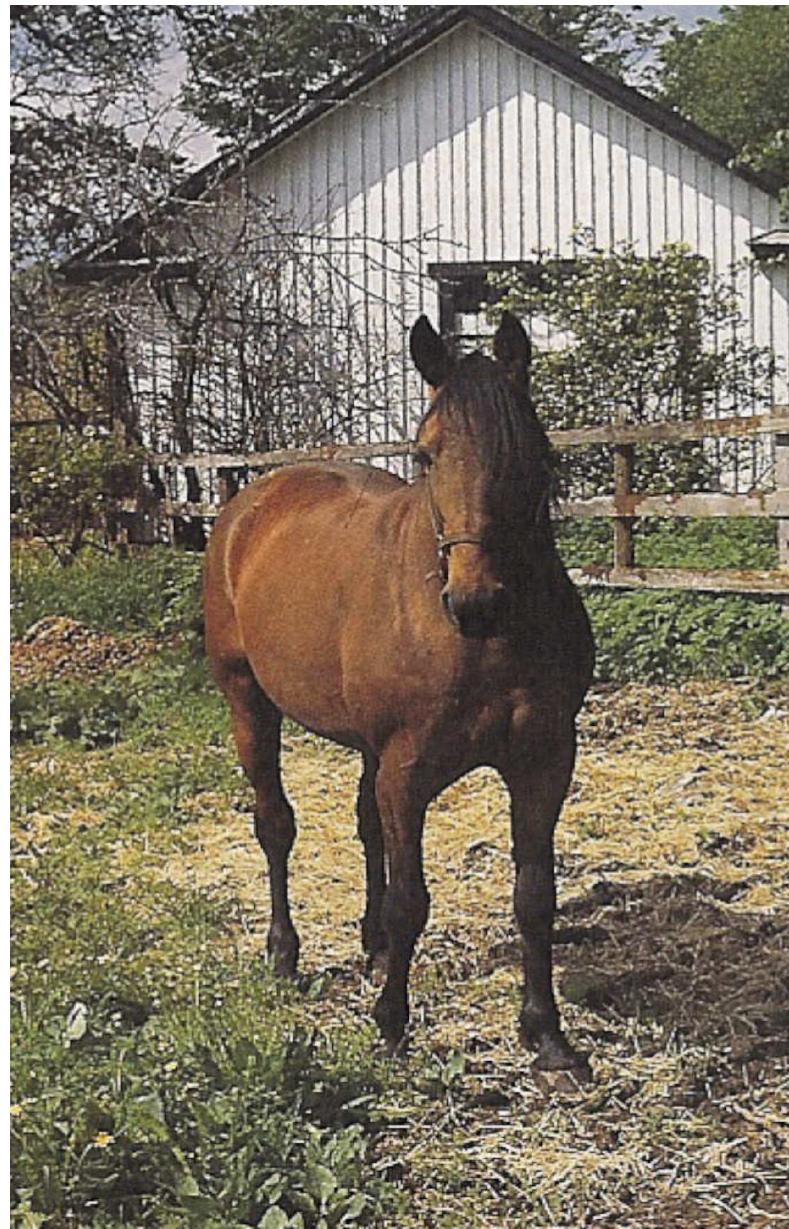
Jerker

Rudstjerna

Vinvar

<i>Stegg</i>	<i>Trygve</i>	Högnar
<i>Dalterna II</i>	<i>Freia</i>	Freia
<i>Gjildarbu</i>	<i>Baus</i>	Baus
<i>Authen Sylfiden</i>	<i>Dalterna</i>	Dalterna
<i>Holger</i>	<i>Dale</i>	Dale
<i>Siri</i>	<i>Tyrai</i>	Tyrai
<i>Omergubben</i>	<i>Grane</i>	Grane
<i>Viktoria</i>	<i>Sylfiden I I</i>	Sylfiden I I
<i>Jahn Sjur</i>	<i>Gelman</i>	Gelman
<i>Litalill</i>	<i>Lydia</i>	Lydia
<i>Attila</i>	<i>Steggbest</i>	Steggbest
<i>Atlas Glaeda</i>	<i>Sara</i>	Sara
<i>Steggbest</i>	<i>Ostlandskongen</i>	Ostlandskongen
<i>Donna Jakken</i>	<i>Minerva</i>	Minerva
<i>Spenter</i>	<i>Belsbybrun</i>	Belsbybrun
<i>Eli Nora</i>	<i>Else</i>	Else
<i>Flisa Stövern</i>	<i>Stegg</i>	Stegg
<i>Sentana</i>	<i>Grasiös</i>	Grasiös
<i>Tordenfly</i>	<i>Ljönar</i>	Ljönar
<i>Steggna</i>	<i>Siljar</i>	Siljar
	<i>Vera</i>	Vera
	<i>Almlisvarten</i>	Almlisvarten
	<i>Fröken Lita</i>	Fröken Lita
	<i>Trygve</i>	Trygve
	<i>Guri</i>	Guri
	<i>Salomon</i>	Salomon
	<i>Authen Sylfiden</i>	Authen Sylfiden
	<i>Atlas</i>	Atlas
	<i>Hofflill</i>	Hofflill
	<i>Simson</i>	Simson
	<i>Guri</i>	Guri
	<i>Trygve</i>	Trygve
	<i>Dalterna II</i>	Dalterna II
	<i>Grani</i>	Grani
	<i>Molla</i>	Molla
	<i>Jakken</i>	Jakken
	<i>Dokka</i>	Dokka
	<i>Åke</i>	Åke
	<i>Bianca</i>	Bianca
	<i>Holger</i>	Holger
	<i>Siri</i>	Siri
	<i>Toftegubben</i>	Toftegubben
	<i>Gubben Sylfiden</i>	Gubben Sylfiden
	<i>Andöl Gyller</i>	Andöl Gyller
	<i>Gran Barr</i>	Gran Barr
	<i>Bausen</i>	Bausen
	<i>Elinor</i>	Elinor
	<i>Remnor</i>	Remnor
	<i>Anny Margrete</i>	Anny Margrete
	<i>Atlasprinsen</i>	Atlasprinsen
	<i>Kleiva</i>	Kleiva
	<i>Erlargubben</i>	Erlargubben
	<i>Gubben Sylfiden</i>	Gubben Sylfiden
	<i>Drivar</i>	Drivar
	<i>Laila Jakson</i>	Laila Jakson
	<i>Holger</i>	Holger
	<i>Siri</i>	Siri
	<i>Kong Gyller</i>	Kong Gyller
	<i>May Tidemand</i>	May Tidemand
	<i>Trygve</i>	Trygve
	<i>Dalterna II</i>	Dalterna II
	<i>Simson</i>	Simson
	<i>Guri</i>	Guri

Bork Rigel is the richest Coldblood performer. His four principal sire lines all trace to the Thoroughbred Odin by Partisan.
 Coldbloods are traditionally given Norwegian names.



Above : Choctaw Brave in Finland
Top Left : Fraekke Frederik, Danish Stakes winner
Bottom Left : Pacing on the turf in Wales

FINLAND

Finland is one of the most recent participants in Standardbred racing with the first races being held in 1957 with Orlov trotters. In that year Soviet Premier Nikita Krushchev gave the President of Finland a pair of four-year-old Orlov trotting mares and the following year another Russian horse called Lento trotted in a mile rate of 2:13.4. That was the start of light harness racing in Finland according to Dean Hoffmann in an article in Hoofbeats entitled *Trotting To The Finnish*.

The first imported American horses came in 1969 and since then the sport has moved ahead quickly to establish a large following.

The first American import was a mare called Caption and she came via Sweden while the first stallion from America was Express Ride, a son of Nevele Pride, who arrived in 1971. He soon became the premier sire in Finland. The first Finnish superstar was in fact a French sired and Swedish bred mare called Charme Asserdal who set a European record of 1:13.9 (1:59 mile rate).

The leading sire for several years in Finland has been Choctaw Brave, a son of Speedy Crown and full brother to the dam of millionaireess Davidia Hanover and sire of Finland's best horse Houston Laukko whose pedigree is entirely American in nature.

OTHER COUNTRIES

The sport of harness racing is widespread in Europe and has a small but devoted following in several other countries.

Belgium, Holland, Austria, Spain, Hungary, and even Slovenia have breeding and racing of Standardbreds with most of the horses originating in the principal European countries and from North America.

Austria has perhaps the longest history of horse breeding generally and interest in the Standardbred breed can be traced to the first importations of North American bloodstock in 1892 when Prince Warwick, a son of Alcona, arrived in Vienna.

The first 2:15 trotter in Europe was, in fact, a daughter of Prince Warwick called Cleopatra. The sire that did the most for Austrian bloodlines, however, was Caid, a grandson of Nutwood, imported in 1898. He was raced for several seasons and set the world record for two miles in a race in Paris among his many achievements. It was as a sire, though, that he left his greatest legacy.

Standardbred racing also exists in Great Britain where the horses are mostly pacers and are raced both in harness and under saddle, especially in Ireland and Wales

		<i>Speedster</i>	<i>Rodney</i>	Spencer Scott
		<i>Mimi Hanover</i>	<i>Mimi Hanover</i>	Earls Princess Martha
		<i>Scotch Love</i>	<i>Victory Song</i>	Dean Hanover
		<i>Florican</i>	<i>Selka Scot</i>	Hanover Maid
		<i>Missile Toe</i>	<i>Spud Hanover</i>	Volomite
			<i>Florimel</i>	Evensong
			<i>Darnley</i>	Scotland
			<i>Sparkle Plenty</i>	Selka Guy
			<i>Worthy Boy</i>	Guy McKinney
			<i>Stardrift</i>	Evelyn The Great
			<i>Hoot Mon</i>	Spencer
			<i>Goddess Hanover</i>	Carolyn
			<i>Spencer Scott</i>	Scotland
			<i>Earls Princess Martha</i>	Fionne
			<i>Titan Hanover</i>	Worthy Boy
			<i>Sophie Hanover</i>	The Gem
			<i>Worthy Boy</i>	Volomite
			<i>Stardrift</i>	Warwell Worthy
			<i>Hoot Mon</i>	Mr McElwyn
			<i>Magnolia Hanover</i>	Dillcisco
			<i>Volomite</i>	Scotland
			<i>Lucy Hanover</i>	Missey
			<i>Phonograph</i>	Dean Hanover
			<i>Lookaway Express</i>	Little Lie
			<i>Calumet Chuck</i>	Scotland
			<i>Tisma Hanover</i>	May Spencer
			<i>Dean Hanover</i>	Protector
			<i>Twilight Hanover</i>	Mignon
			<i>Scotland</i>	Calumet Chuck
			<i>Missey</i>	Tisma Hanover
			<i>Dillon Axworthy</i>	Sandy Flash
			<i>Volga E</i>	Rosy Guy
				Volomite
				Warwell Worthy
				Mr McElwyn
				Dillcisco
				Scotland
				Missey
				Dean Hanover
				Melba Hanover
				Peter Volo
				Cita Frisco
				Mr McElwyn
				Volga Hanover
				Volomite
				Symphonia
				Atlantic Express
				Nowaday Girl
				Truax
				Sumatra
				Peter The Brewer
				Justissima
				Dillon Axworthy
				Palestrina
				Mr McElwyn
				Rose Scott
				Peter Scott
				Roya McKinney
				Guy Abbey
				Tilly Tonka
				Axworthy
				Adioo Dillon
				Peter The Great
				Nervolo Belle

Houston Laukko

Express Pride
t,2,T2:033m

Milos Daughter

Hickory Di Milo

t,3,2:061f

Expression

Hickory Smoke

Venus Hanover

Hanover Venus

The dam of Houston Laukko is a first time double copy to **Adioo**

QUESTIONS AND ANSWERS

In an earlier chapter I posed a number of questions. Perhaps it is time to try to answer them on the basis of what I have presented so far.

“What is it that makes the daughters of Pilot Jr, and in particular Miss Russell, such a pervasive influence in the maternal lines of so many top Standardbreds today? “

If you want to take the time you can go through hundreds of pedigrees and see if you can find other individuals that show up in the pedigrees of top performing pacers and trotters as often as Miss Russell and Pilot Jr. Over the past several years I have looked at thousands of pedigrees and I cannot say who or what that individual might be other than "unknown".

The ability of those individuals that carry the Diomed legacy to trigger mares from other families into worthwhile production is evident and would appear to confirm that there is indeed a maternal legacy affecting performance that is being passed.

“How can this genetic legacy of a single individual like Miss Russell be of any importance over 100 years after her own passing? “

I am not a geneticist but from what little I know of genetic transmission it is entirely possible that the sex linked gene that carries this maternal legacy is recessive in nature and can withstand the normal diminution of the gene over time and generations. What else can explain the nurturing of the influence of Miss Russell over several generations in the maternal line that suddenly results in a top performer when the same source presents itself from the sire?.

“What genetic process is at play that can nurture the genetic legacy of particular horses through many generations in an apparently undiminished form that can rear its head in such spectacular fashion when the right circumstances prevail? “

The striking thing about the effect of Miss Russell and other key maternal influences is that the primary path for their legacy is through a son, then a daughter and another son. This zigzag pattern is evident in Arion, San Francisco, Ensign Hanover, and many other sires who carry the legacy to their daughters. While the legacy can also be passed from mother to daughter it seems that this can diminish over the generations and be strengthened only by inbreeding to reassert itself on the maternal identity.

“What are the right circumstances and how can we foresee and plan for this accordingly?“

There is a force at play here that is not altogether explainable. On the evidence it seems that sires will respond well to mares that carry the same maternal legacy as exists in their own dams. The question then is why should Adioo differ from Manette or any other trace to Miss Russell? Why should Miss Russell differ from any other trace to Diomed? Why should Diomed differ from any other trace to the Brothers Childers?

The simple answer is that they don't, it is strictly a matter of timing. We have seen examples of top performers whose pedigrees have provided a double copy situation for the first time in their dam or in their own pedigree in the case of a filly or mare. This appears to be the overriding concern. It is a variation on the old theme that governs most horsemen's decisions – What have you done for me lately?

In this regard I would make one exception and that is with respect to the presence of Margaret Parrish and Helen Hanover. Anytime you have a double copy of either of these individuals all bets are off with regard to any other traces. As in the case of the best performers by Garland Lobell we saw that the majority had mares that were double copies to Hatteras except when Margaret Parrish was doubled up somewhere in the pedigree and not necessarily in the first dam.

I'm not sure that I have completely answered all the questions that can be asked. It is a characteristic of humankind that every answer raises another question and I'm sure that this book is no different in that respect. What I do hope is that I have achieved my objective in raising the awareness of the breeders and buyers of Standardbreds to the other side of the equation – the Maternal Identity.

Who would have thought that the North American Standardbred of today, so dominated by the sire lines of the great progenitor Hambletonian, just might owe its greatest debt to some breeder in Canada, courtesy of the legacy of Miss Russell by Pilot Jr, the son of Canadian Pilot? Not that James Wallace was that impressed with Canadian Pilot and his offspring. In fact in his first edition of the Trotting Register in 1871 he writes: "*I will not quarrel with any one who may insist the Canadians are natural trotters but they are not the style of horse to breed for if you fail to get a trotter you have nothing. The lack of intelligence in his breeder, the scarcity of food and the rigors of climate have caused him to degenerate until now we find him reduced in size and nearly all the points of elegance and beauty obliterated.*"

All I can say to that is beauty is in the eye of the beholder – I guess you could say the same thing about what constitutes a good pedigree.

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