

# The History of the Horse Doctor (*equarius medicus*)

A Brief Summary of 4000 Years of Veterinary History  
by Fred J. Born, DVM



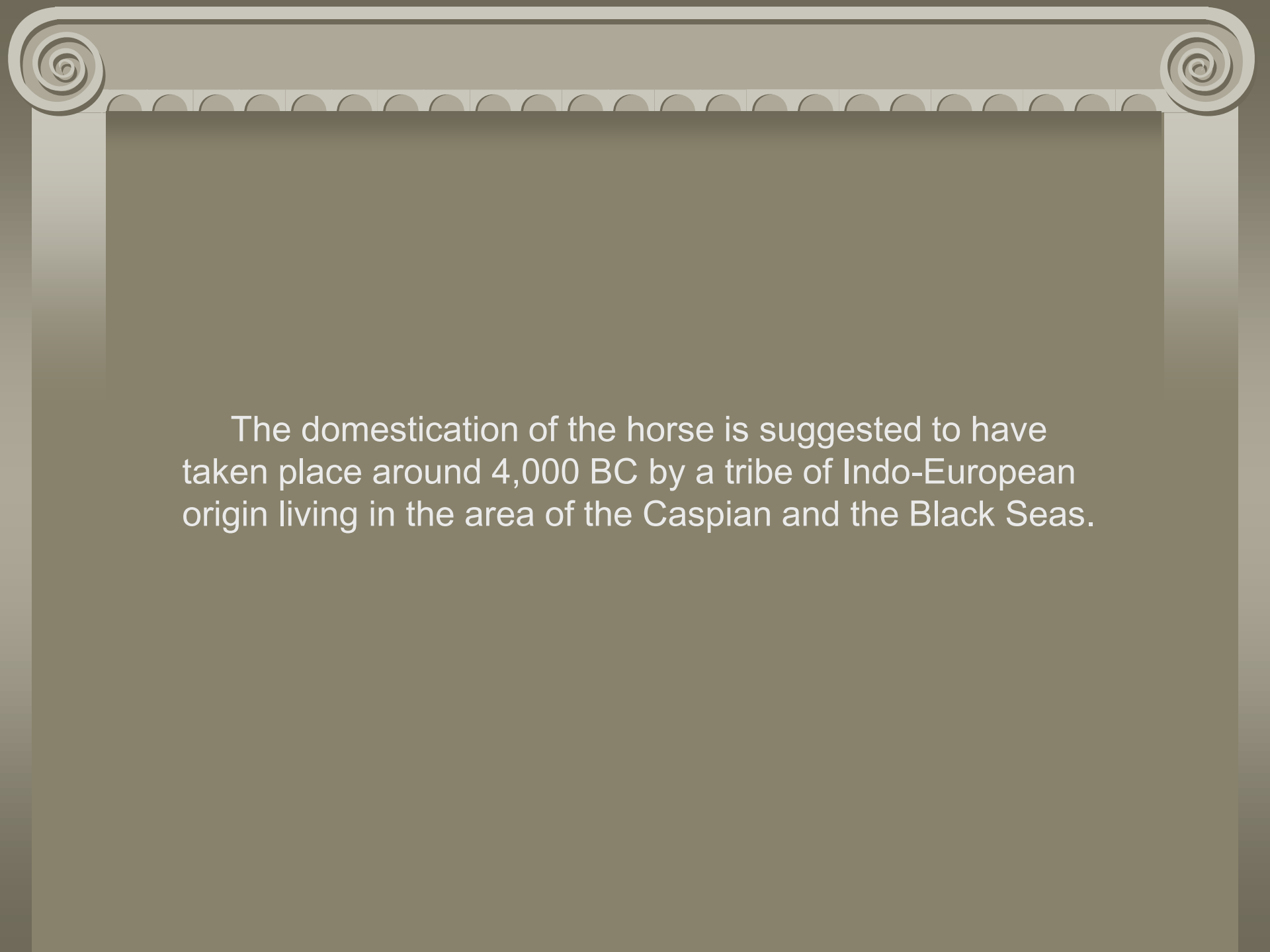
# Preface

Historians believe that the world's greatest ancient discovery occurred about 8000 BC, from hunter-gatherers into farmers and keepers of livestock.

Resource: [www.teach12.com](http://www.teach12.com)

Horse, Tito Bustillo cave, Asturias, Spain c. 15,000 BC.





The domestication of the horse is suggested to have taken place around 4,000 BC by a tribe of Indo-European origin living in the area of the Caspian and the Black Seas.

According to some historians, the first date of recorded history appears to be when the Egyptian calendar was in use by 4241 BC. A text from the reign of First Dynasty King Djer had 360 days with 12 months of 30 days each.

According to [wikipedia.com/Egyptian Calendar](http://wikipedia.com/Egyptian_Calendar)

In 2772 BC, Egypt introduced a 365 day calendar without adjustments.

According to [http://en.Wikipedia.org/wiki/Egyptian\\_calendar](http://en.Wikipedia.org/wiki/Egyptian_calendar)

The oldest written record of veterinary procedures  
is contained in the Egyptian papyrus of Kahun  
(dating back to 2160 - 1788 BC)



Reference: Univ. of London - [http://en.wikipedia.org/wiki/Kahun\\_Papyri](http://en.wikipedia.org/wiki/Kahun_Papyri)

The Egyptian Papyrus of Kahun (1900 BC) and Vedic literature in ancient India offer one of the first written records of veterinary medicine. One of the edicts of Ashoka reads: "Everywhere King Piyadasi (Asoka) made two kinds of medicine available, medicine for people and medicine for animals. Where there were no healing herbs for people and animals, he ordered that they be bought and planted."

## Introduction

The Derby hat was designed by James & George Lock of St. James St., London, England, in 1850. In England, this hat was known as a derby hat, after Edward Stanley, 12<sup>th</sup> Earl of Derby (1752-1834), founder of the English Derby. It was also known as the Iron hat. The cultural significance in the United States was slightly different. Though certainly not exclusively so, the derby tended to be associated with urban culture, and particularly with the well-to-do, that had risen from the working class. Veterinary medicine as we know it today, is nothing like it was 200 years ago. But it must be pointed out that the true medical progress in both human and veterinary medicine has been in just the last 150 years.



One will be amazed that the Horse was the center of the veterinary profession until the 1920's. During this brief period from 1860 till 1920's, the veterinarian truly became known as "The Horse Doctor." As we step back in time, 2000 years before Christ, a period of 4000 years, an era when the Horse was the supreme symbol of power.

This PowerPoint program grew out of a six-month quest to tell the complete story of the horse doctor, as historians have recorded it. I wish to dedicate this program to the late Dr. J. Fred Smithcors, a former anatomy professor, one of my mentors and a very dear friend.

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# Hammurabi 1810 – 1750 BC



Many scholars believe this diorite head discovered at Susa represents king Hammurabi.

It is Babylonian from 2025-1594 B.C. and housed in Paris at the Louvre.

From: <http://clendening.kumc.edu/dc/pc/index.html>




References to the practice of veterinary medicine are found in the oldest records of civilization. The Babylonian code of Hammurabi clearly stated the tasks of the “doctors of oxen and asses” and specified the fees that could be collected.

King Hammurabi, sixth King of Babylon


“Code of Hammurabi”

Reconstructed city of Babylon, (Iraq) is pictured below.



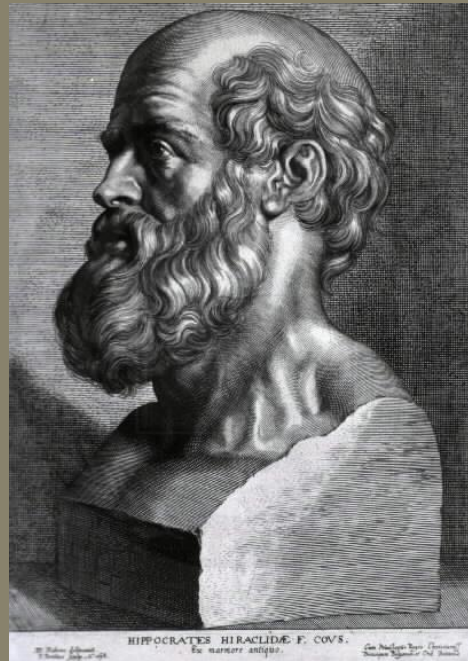


King Hammurabi, sixth King of Babylon, was famous for his love for law and order. Under his reign, he developed a set of laws known as the “Code of Hammurabi.” A fixed monetary unit was established, interest on loans and on other transactions was controlled, and crafts and trades, including the practice of human and veterinary medicine, were regulated.




The fact that animal doctors were specifically referred to in the “Code of Hammurabi” is but one of many examples that we see throughout the ages that veterinary medicine is inseparable from a higher civilization. As an example, if a physician operated on a nobleman for a severe wound with a bronze lancet and saved the man’s life, the fee would be ten shekels of silver. But if it be his slave, the owner of the slave shall give two shekels of silver to the physician.

# Hippocrates 460 – 377 BC



Hippocrates, engraving by Peter Paul Rubens, 1638. Courtesy of the National Library of Medicine.



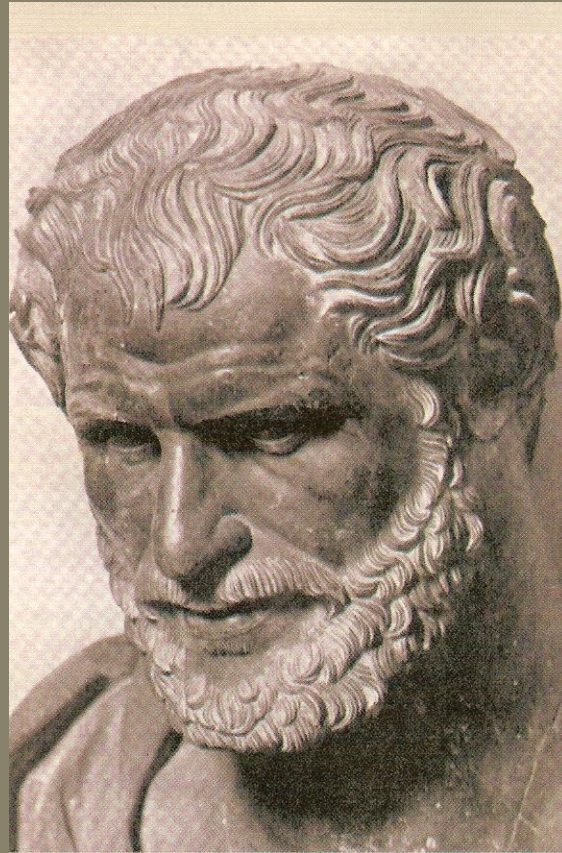
Father of Medicine and even today the code of ethics written by this Greek physician and philosopher is the creed of every physician of human medicine. Hippocrates, whose name means “chief of horses,” and whose brother Sosander (“savior of men”) was reported to be one of the Greek hippiatroi (literally, horse doctors). The name hippopotamus is derived from the ancient Greek word for “river horse.”




## Hippocrates 460 - 377 BC Aristotle 384 - 322 BC

Greek medicine had a greater impact upon veterinary medicine later on in history, but both of these men were especially helpful in the development of the veterinary art. However, it was through the Hippocratic influence on the Greek veterinary practitioner and writers of the Byzantine Period that both veterinary medicine and human medicine grew. They were not colleagues, as Aristotle was only 7 yrs. old when Hippocrates died.

Aristotle 384 - 322 BC

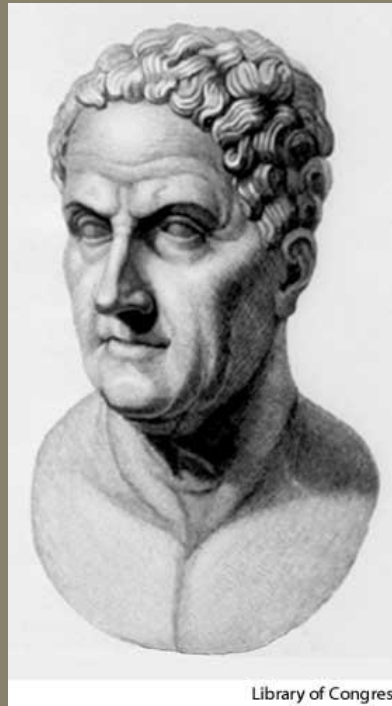





Aristotle was the student of Plato, Plato was the student of Socrates, much of philosophy and Western thought is a response to these three.

Aristotle studied plants and animals and recorded his observations based on discovered facts. He classified animals according to their similarities of structure. He dissected more than 50 different animals and recorded the likenesses and differences in their structure. His works mark him as the father of biology.

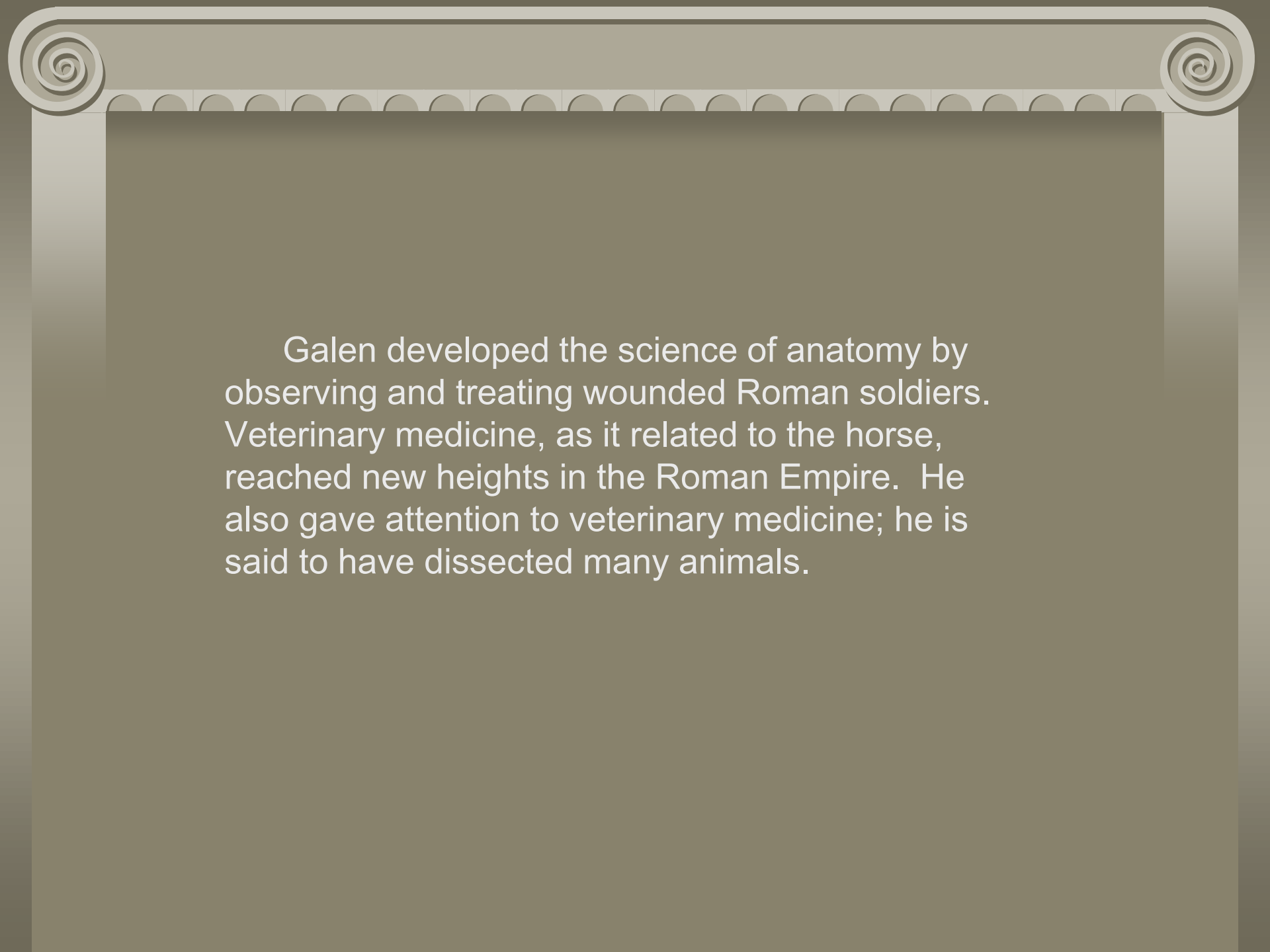
# Claudius Galen 131- 201 AD



Library of Congress



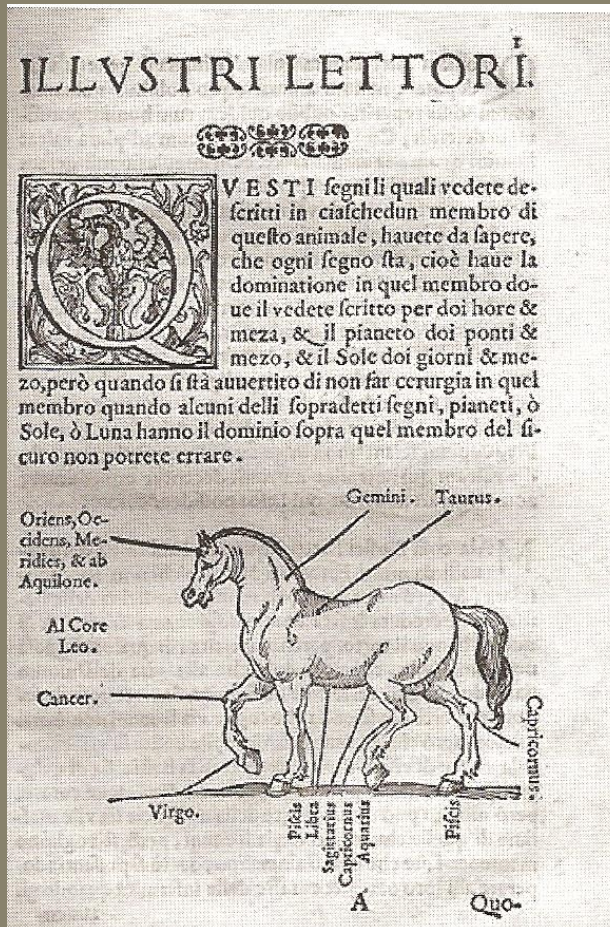
A Greek physician and writer, who went to Rome and revived the ideas of Hippocrates and other Greek doctors. He was a gifted intellect who studied at the famous medical school in Alexandria in Egypt. At the age of 28, Galen became the surgeon to a school of gladiators. He was a genius, a born physiologist, a brilliant exponent of experimental methods, and a first-class anatomist. Galen, nevertheless, was considered an absolute authority on all medical matters and his writings were the basis of medical practice for almost 1500 years.




Galen developed the science of anatomy by observing and treating wounded Roman soldiers. Veterinary medicine, as it related to the horse, reached new heights in the Roman Empire. He also gave attention to veterinary medicine; he is said to have dissected many animals.

# The Zodiac Horse

Courtesy of the National Library of Medicine






Galenicals were originally “lunar medicines” prepared according to formulas of Claudius Galen. Galenicals owed their potency to the phase of the moon or the signs of the Zodiac.

“Zodiac Horse.” Filippo Scaccho da Tagliacozzo.  
Opera di Mexcalzia, (Rome: P.Blado, 1591).



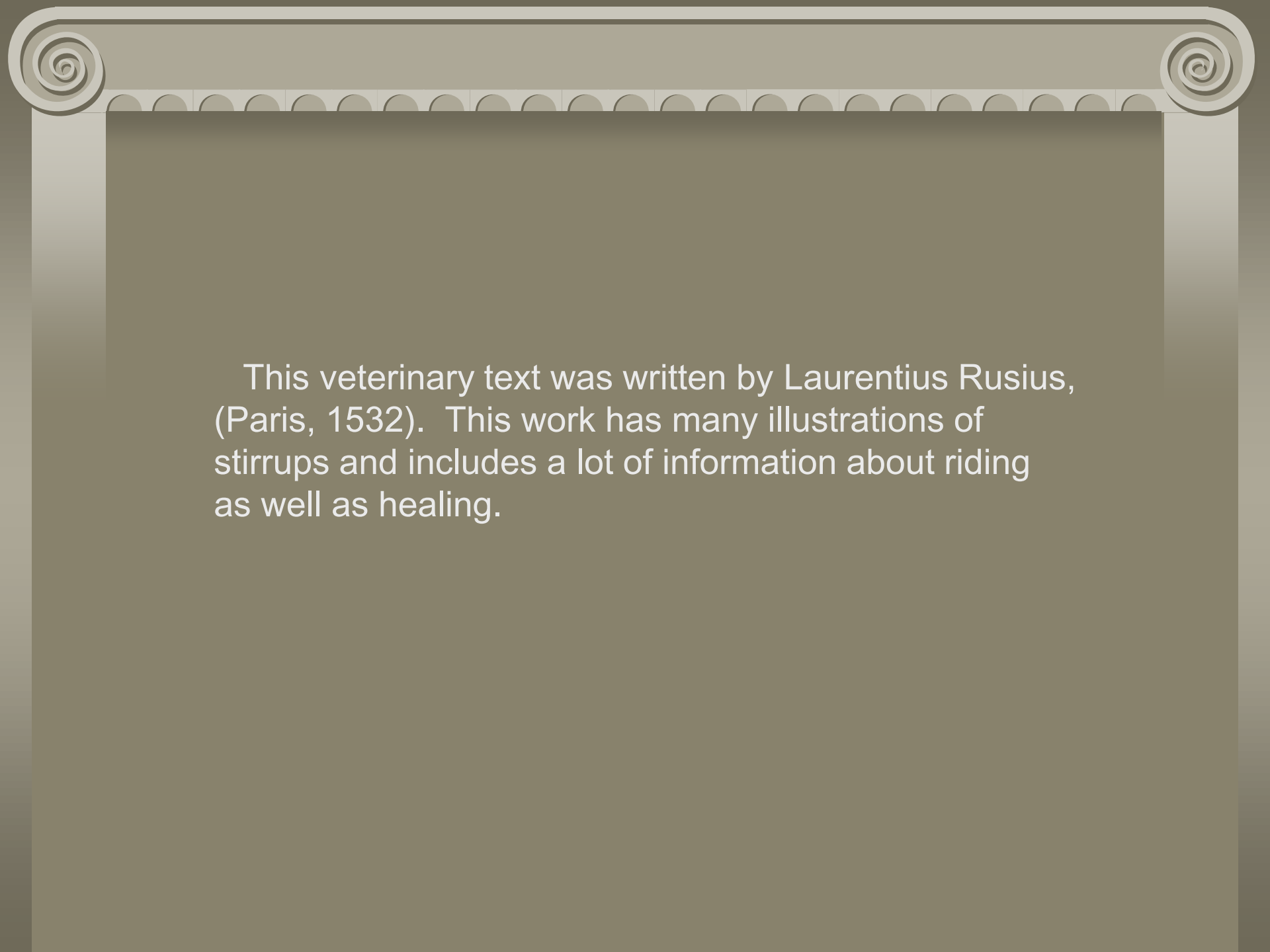


Rome gave us much of our current terminology relating to the veterinary profession, including veterinarius and equarius medicus. The oldest complete veterinary work known today is the Hippitrika, which is a compilation of many texts by a number of Greek veterinarian authors who accompanied the Roman armies into Asia Minor during the Byzantine period (3<sup>rd</sup>-4<sup>th</sup> century AD).


# The title page of the Hippiatria

Courtesy of the National Library of Medicine



A decorative frame with two columns on the left and right sides, each topped with a scrollwork ornament. The top edge of the frame is a horizontal bar with a series of small, repeating circular motifs. The background is a solid, muted green color.

This veterinary text was written by Laurentius Ruisius, (Paris, 1532). This work has many illustrations of stirrups and includes a lot of information about riding as well as healing.




With the invention of the nailed-on iron horseshoe during the Roman period, horseshoeing became an adjunct to the craft of the ferrarius (ironworker, thus the farrier).

# Apsyrtus of Constantinople 330 – 380 AD

Constantinople (a painting, showing as it was in the Fourth Century)






Apsyrtus, a Byzantine veterinarian, lived in the middle of the fourth century. With some accuracy he described many of the infectious and contagious diseases of the horse. He left a written record of proof of his abilities, especially in diagnosis. As an army officer, he taught veterinary medicine to cavalrymen. Because Apsyrtus was one of the most famous of the animal doctors up to that time, some historians consider him the father of veterinary medicine.



Flavius Vegetius  
383-450 AD

*Digestorum aris mulomedicinae libri IV*



The most scientific work of this period was the text written by Vegetius about the care of mules. His book almost founded veterinary science and remained an authority till the Renaissance, over a 1000 years later.

Most physicians accepted astrology and some advised different treatments according to the position of the planets. Marcellus, a physician, in his book entitled *De medicamentis*, written in 395, anticipated modern techniques by urging the wearing of a rabbit's foot. Mules fared better than man, Vegetius' text had more sound treatments for the ills of the mule.





Vegetius Renatus  
450–500 AD

## Vegetius Renatus


Still other historians, however, consider Vegetius Renatus the father of veterinary medicine. Renatus wrote a complete work on veterinary medicine; as Hippocrates did, he ignored superstition in his search for natural causes of disease and expounded sound medical doctrines. Renatus was also a celebrated military writer of the 5th century.

Yet, he wrote of the influence of the moon on horses. He termed moonblindness, *oculus lunaticus*. The term moon-blindness is retained in modern texts.




# The Dark Ages

The European Early Middle Ages (476-1000)




Progress made by the Romans in the medical and veterinary science on the European Continent was destined to be short lived. The disuse of human and veterinary medical sciences during the Middle Ages brought obvious results. Human and animal plagues swept through all parts of Europe, taking a tremendous annual toll of life. Treatments for disease were usually absurd.



Carts were piled high with human victims of smallpox and so-called plague, then wheeled to the edge of the city so the bodies could be burned. Fields and farm lands frequently were littered with dead and dying domesticated animals. Superstition prevailed over reason and everything that happened was supposed to be the result of divine will. Hippocrates' and Vegetius' quest of natural causes was forgotten.


## The Black Death

The first account is from Jean de Venette. While the plague was still active and spreading from town to town, men in Germany, Flanders, Hainault and Lorraine rose up and began a new sect on their own authority. Stripped to the waist, they gathered in large groups and bands and marched in procession throughout the crossroads and squares of cities and good towns.



Another account is from the medieval historian Jean Froissart, from his history of the Hundred Years' War....the penitents went about, coming first out of Germany. They were men who did public penance and scourged themselves with whips of hard knotted leather with little iron spikes.

The object of this penance was to put a stop to the mortality, for in that time . . . .



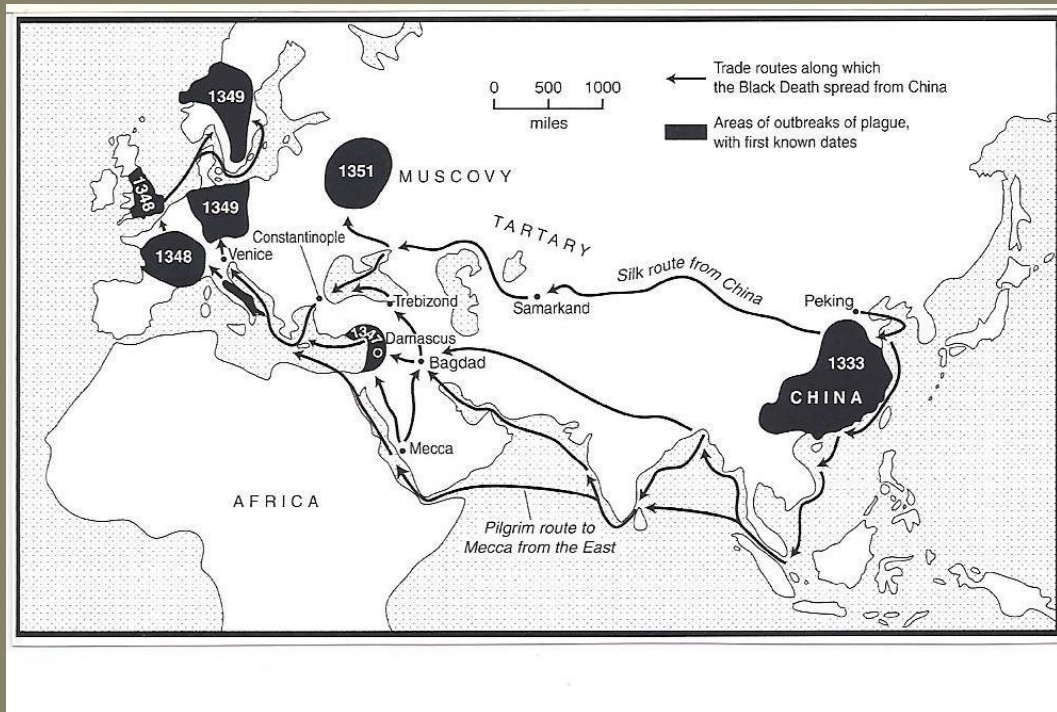
The Black Death was one of the worst natural disasters in history. In 1347, a great plague swept over Europe, ravaged cities causing wide-spread hysteria and death. One third of the population of Europe died. "The impact upon the future of England was greater than upon any other European country." (Cartwright, 1991) The primary culprits in transmitting this disease (bubonic plague) were oriental rat fleas carried on the back of black rats.






Courtesy of the Museum of Wisconsin Art, "The Flagellants" Carl von Marr (1858-1936) oil on canvas, on permanent loan to the Museum of Wisconsin Art, West Bend, WI from the City of Milwaukee Collection


The Black Death was a devastating disease and at that time its cause was unknown. As you can see the outbreaks from this map, occurred first in 1333 in China, then in Europe 1347-48-49, in 1351 then in 1370.




Resource: <http://www.utpjournals.com/jvme/tocs/314/310.pdf>



“This painting depicts the madness of penitent groups of flagellants, self-scourgers, who roamed through Europe in the thirteenth (also fourteenth) centuries and again in the sixteenth century. As Europeans suffered from plagues, wars, religious and political factions, the flagellants, as self-appointed sufferers, would publicly whip themselves in a penitential effort to save sinners.



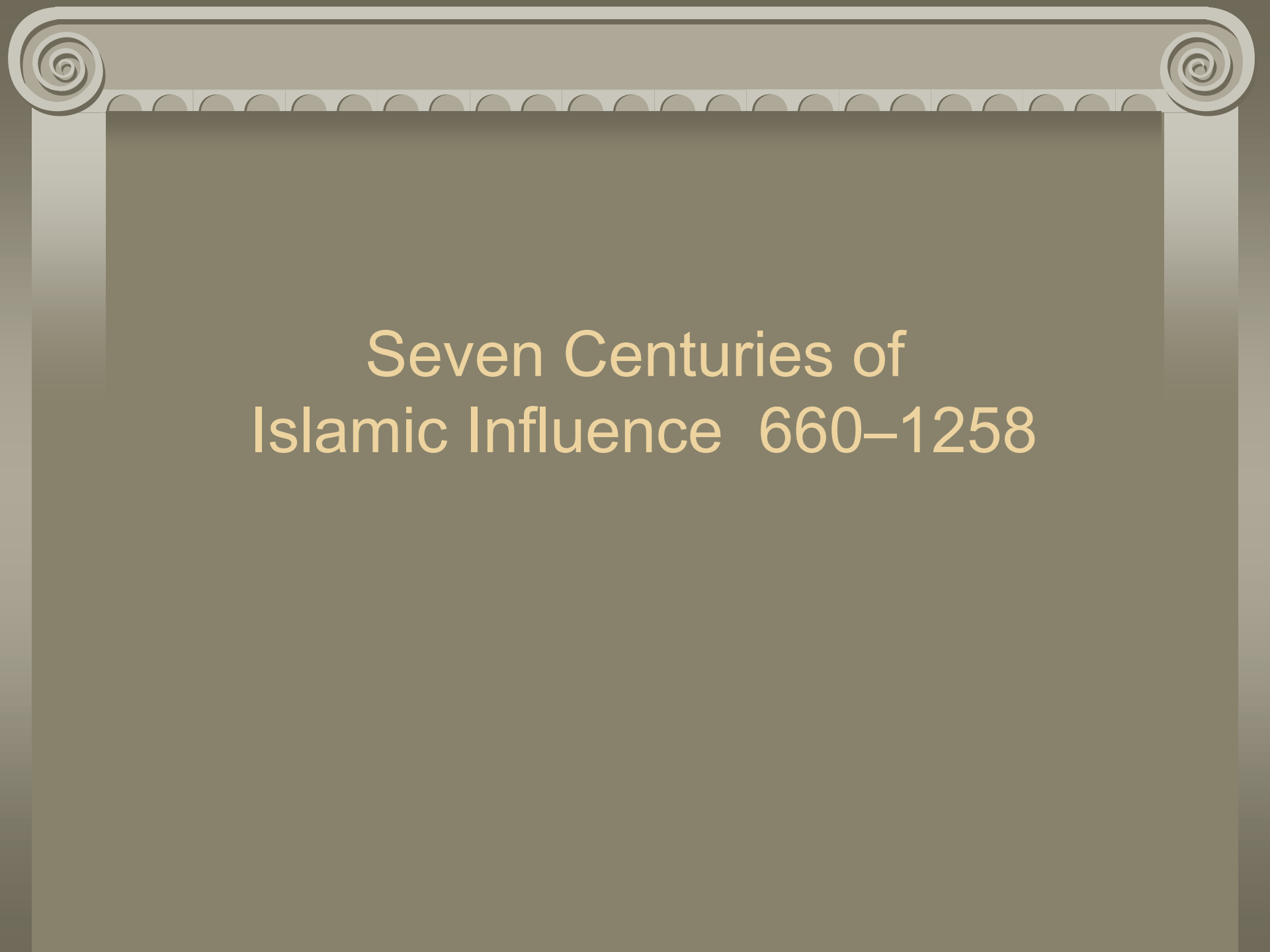
These religious outcasts believed that the redemption of others was brought through the shedding of their blood. Even though attempts were made by the papacy to suppress the movement, bands of converts continued to march in the religious processions beating themselves with knotted leather thongs, as depicted by the artist.”



This statement comes from a booklet on Carl von Marr, born in 1858, Milwaukee, WI – died in 1936, Munich, Germany. This famous painting is at the West Bend Art Museum, West Bend, WI and is on permanent loan from the City of Milwaukee Collection. This painting received international acclaim at the Columbian World's Fair in Chicago in 1893, won numerous gold medals, and brought the artist to the attention of the German art critics.



These two close-up photos show more detail to this remarkable painting



Seven Centuries of  
Islamic Influence 660–1258

## Islamic Influence

All was not dark during the so-called Dark Ages, however, the flames of the Grecian cultural heritage never died in the Eastern or Byzantine part of the Roman Empire, around Constantinople. Then, too, beginning around 660 A.D., the Muslims (Mohammed 570-632) swept through Arabia, Syria and Persia and then across all of North Africa.




# The Arab Conquest 660 - 750 AD

## The Omeyyade, the first Moslem dynasty



Resource: [http://memo.fr/en/article.aspx?ID=MOY\\_ARA\\_001](http://memo.fr/en/article.aspx?ID=MOY_ARA_001)




By 715, the Islamic empire extended from Spain to the Indus River in India. After establishing their empire, the Muslims eagerly pursued all phases of learning. The works of the great philosophers, scientists and physicians, that were dormant for centuries, were revived by Arabian scholars and translated into Arabic.

The legacy of ancient Greece was restored.

## 750 – 1258 AD The Abbasid Empire



Resource: [http://memo.fr/en/article.aspx?ID=MOY\\_ARA\\_005](http://memo.fr/en/article.aspx?ID=MOY_ARA_005)



Books dealing with the natural science were enriched by the observations of Arab scientists.

Saracen or Arabian physicians added their own findings to the works of Hippocrates and Galen. The veterinary art, especially as it applied to the horse, was highly developed by Arab horsemen.

# Classic examples of Islamic manuscripts

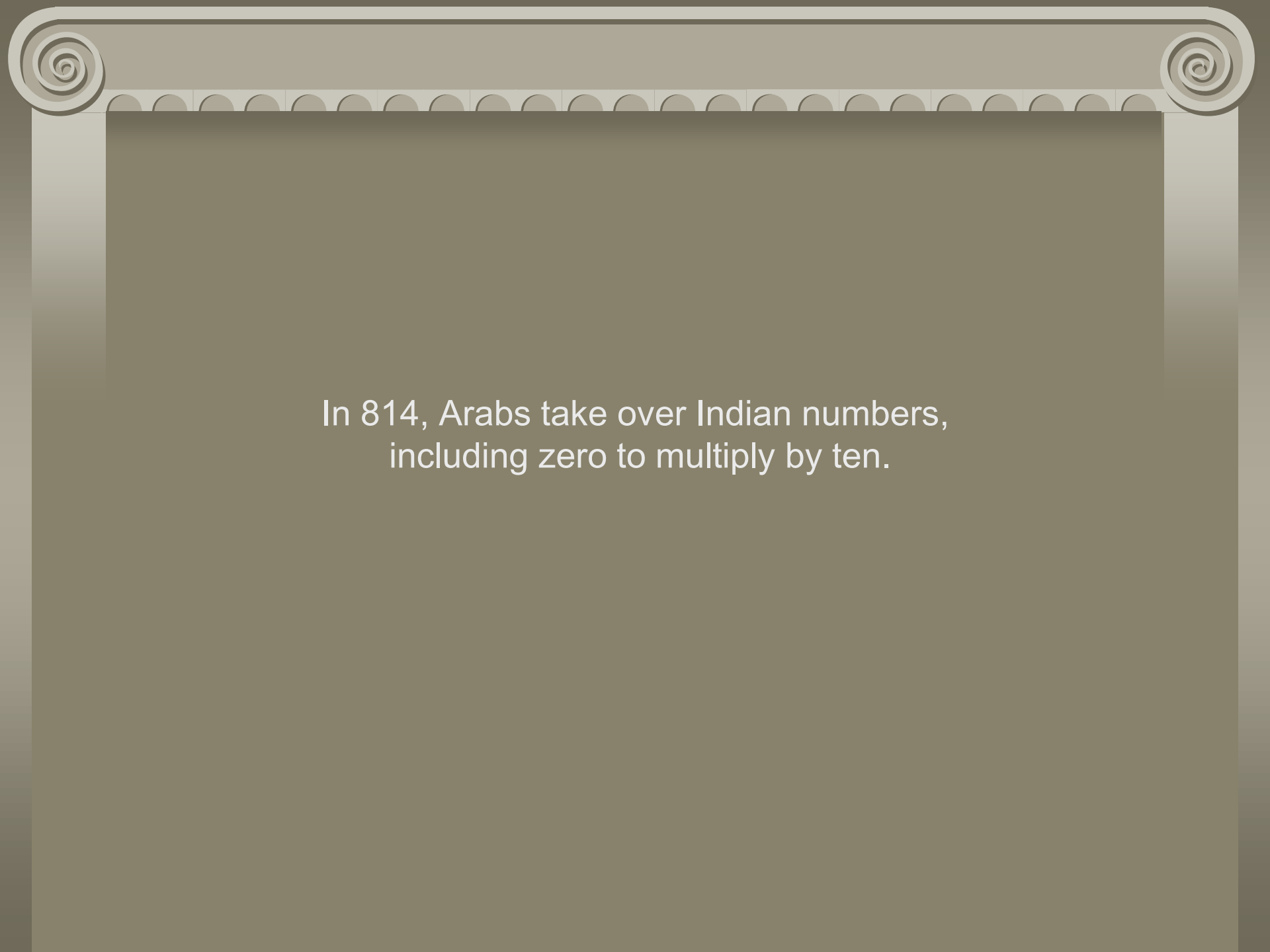
Courtesy of the National Library of Medicine




# Other examples of Islamic manuscripts

Courtesy of the National Library of Medicine






In 814, Arabs take over Indian numbers,  
including zero to multiply by ten.




What we call pasta today is made from hard wheat grown in the Middle East for thousands of years. Some early sources, and seemingly all folklore in Sicily, say dried pasta came from the Arabs, who may have developed it to preserve wheat's nutrition through desert heat and travel





Local legend has it that when the Arab conqueror of Sicily, Asad ibn al-Furat, landed with his fleet on the southern shore of the island in 827, one of his first orders of business was to muster up food for his troops. Quickly surveying the local resources, Asad's cooks caught sardines in the harbor, harvested wild fennel, currents and pine nuts from the surrounding hills, and combined them all with an ingredient then unknown in Europe, which the invading Arabs had brought with them in the holds of their ships: pasta.



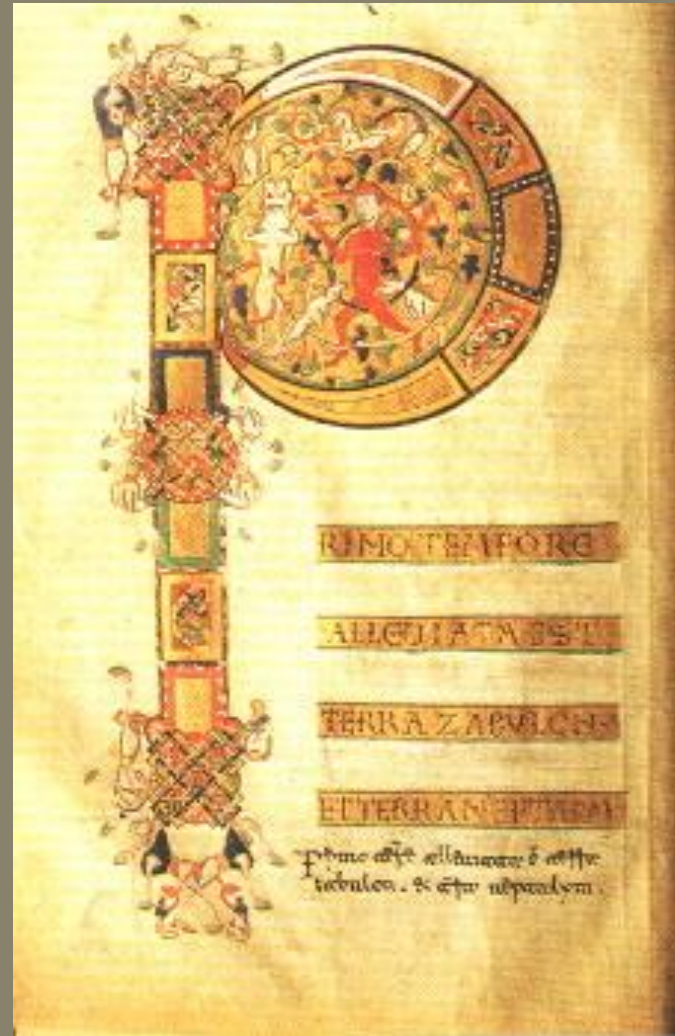
Learning in agriculture and veterinary medicine grew, improved and was disseminated in Arabic.

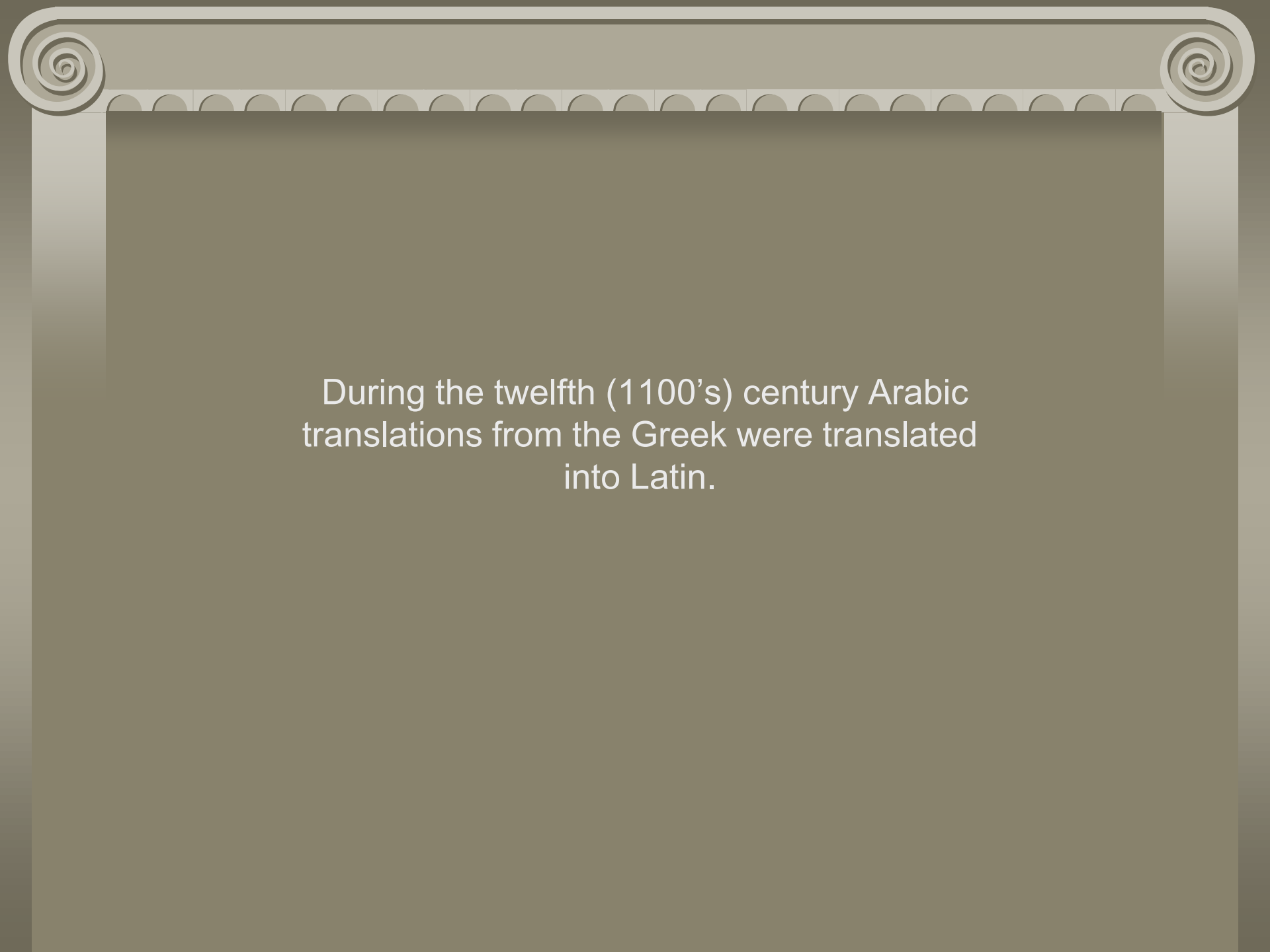
The development of the sciences by the Islamic Empire influenced the people of Europe through Spain, Sicily and Asia Minor.



In the 975, the present arithmetical notation  
was brought into Europe by the Arabs.

A monk's fine script, such as this Lectionary dated 1068






During the twelfth (1100's) century Arabic translations from the Greek were translated into Latin.


These translations were written in monasteries throughout Europe, one such monastery reached its maximum splendor between the 11<sup>th</sup> and 12<sup>th</sup> centuries until its final decay in the 17<sup>th</sup> century.

Monastery of St. Pere de Rodes, Costa Brava, Spain



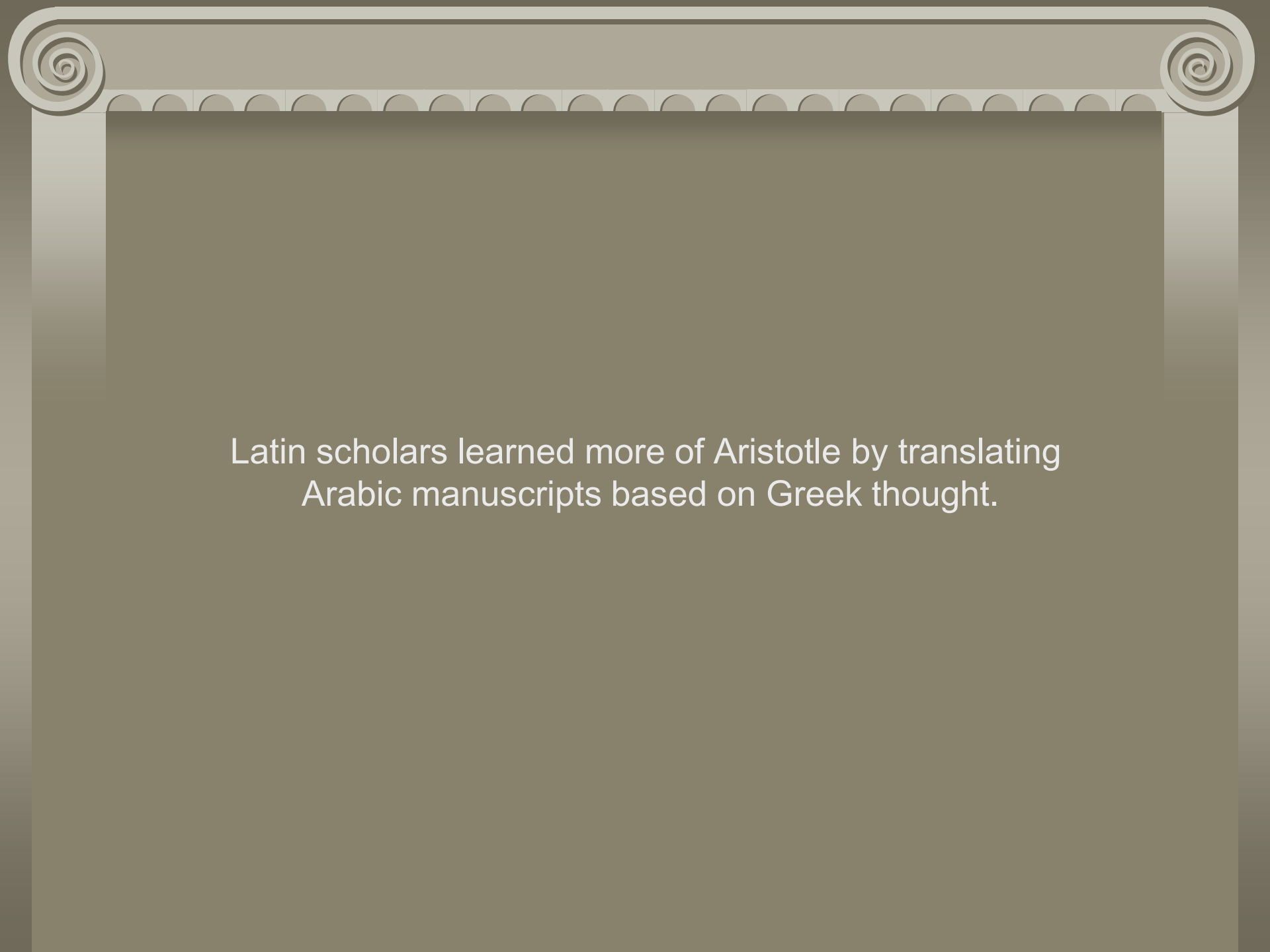


The true origin of the monastery of St. Pere de Rodes is not known, which has given rise to speculation and legend; such as its foundation by monks who disembarked in the area with the remains of Saint Peter and other saints, to save them from the Barbarian hordes that invaded the Western Roman Empire. Once the danger had passed the Pope Boniface IV commanded them to construct a monastery.



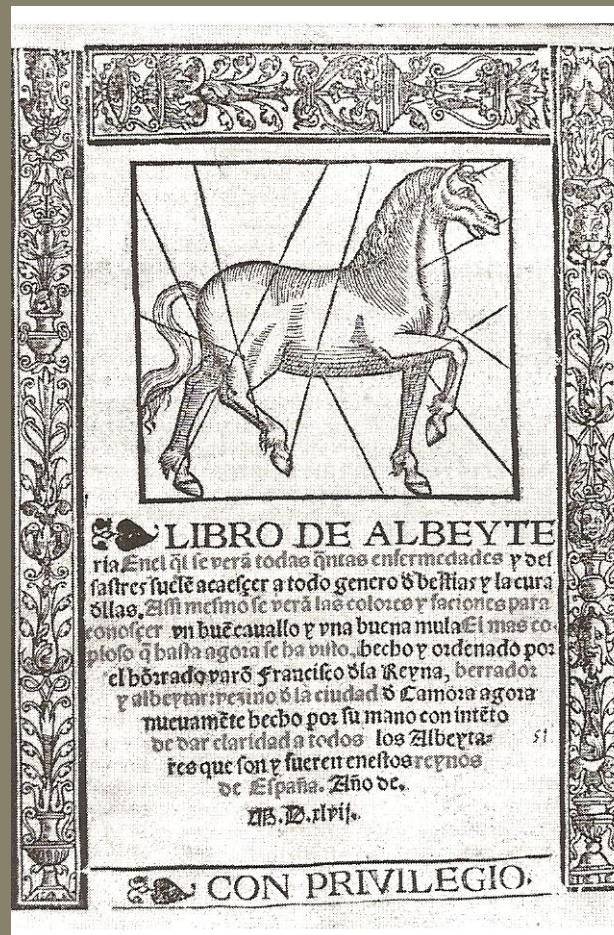
The first documentation of the existence of the monastery dates 878, when it was mentioned as a simple monastery cell consecrated to Saint Peter, but it is not until 945 when an independent Benedictine monastery was founded, led by an abbot. Connected with the County of Empuries, it reached its maximum splendor between the 11th and 12th centuries until its final decay in 17th century. Its increasing importance is reflected in its status as a point of pilgrimage.




A decorative frame with a light beige background. At the top, there are two scrollwork ornaments on the left and right. Below them is a horizontal row of small, light-colored circles. The main area is a dark beige rectangle.

Latin scholars learned more of Aristotle by translating Arabic manuscripts based on Greek thought.


A copy of the first edition of the veterinary manual  
Libro De Albeyteria (1547) by Francisco de la Reyna





This is the only known printed copy of the first edition, in which Reyna, who postulated the circulation of the blood eighty years prior to Harvey's famous discovery.


Courtesy of Special Collections, Michigan State University Libraries.



Veterinary medicine, for example, before the development of the veterinary sciences during the eighteenth century, was called the veterinary art.

An art is the development of skill along certain lines by means of experience, study or observation.

Science, on the other hand, is knowledge based upon discovered facts, systematically arranged.



Veterinary medicine remained in the hands of farriers until the latter half of the eighteenth century, when great animal plagues in Europe made reforms in the system of veterinary education necessary.

It was realized then that the system of apprenticeship training for farriers could not meet the demand for well-trained veterinary professionals.



Ecole Nationale  
Vétérinaire  
de Lyon

The first veterinary school was  
founded in Lyon, France, in 1761.

The first veterinary school in the world was founded by Claude Bourgelat in Lyon, France, in 1761 and devoted most of its attention and resources to the diseases of the horse. He obtained authorization by the King to open a school in Lyon “In which the principles and methods of curing livestock diseases would be publicly taught.” It was called The National Veterinary School of Lyon. The success of the Lyon school was immediate and became well known throughout the world. Bourgelat was a member of the [French Academy of Sciences](#) and the [Prussian Academy of Sciences](#).


Claude Bourgelat (1712 - 1779)  
in his earlier years





## Claude Bourgelat (1712 - 1779)

At the age of 49, founded the first veterinary school in Lyon, France. Born to a wealthy family and was admitted to the bar, following his father, a prominent attorney in the practice of law. In his youth, he was known for his remarkable intelligence and as a great horseman. At the age of 28, he was appointed ecuyer (horse master) of the Academy of Equitation at Lyon in 1740. In 1751, he published “Elements of Hippiatry and New Knowledge of Equine Medicine” (translated titles) in three volumes, in which he encouraged the founding of a veterinary educational system.



In 1757, with the “New Practical Dictionary of Veterinary Medicine, Surgery and Hygiene,” (also in three volumes) by Bouley and Reynal, published in Paris, with the combination of these six books they became the first veterinary classics. Bourgelat was well known for having furnished healthy and excellent remounts for the King of France. He had also eradicated Glanders from many other regiments. With his reputation in equine husbandry, the government sent him to Lorraine to develop a breeding stable for the King of Poland. For Bourgelat was not just any French veterinarian, he was well grounded in the true knowledge of veterinary medicine of that time.

In 1761, Bourgelat was named inspector of the library of Lyon. His selection as librarian for the cultured city of Lyon, would open many doors. With his books on veterinary medicine and his association with local celebrities of the medical profession, this was just a start. His skill with the whip and being an international renowned horseman, with his practical experience in equine economics, distinguished him as the man of choice for founding a new and strange departure in the educational system in France. It was obvious that there was no other figure in the animal industry of France that was as well qualified to develop the first veterinary school in the world.

Reference: Veterinary Military History of the United States Volume I by Louis A. Merillat, Lt. Col., Vet.-Res. and Delwin M. Campbell, Lt. Col., Vet.-Res. Sponsored by the AVMA The Haver-Glover Lab. Kansas City, MO 1935

## Denis Diderot

Denis Diderot (October 5, 1713 – July 31, 1784) was a French philosopher, art critic, and writer. He was a prominent figure during the Enlightenment and is best-known for serving as chief editor of and contributor to the creation of the Encyclopédie. Bourgelat also contributed to Denis Diderot and d'Alambert's Encyclopédie.



## The *Encyclopédie*

The *Encyclopédie* was an innovative encyclopedia in several respects. Among other things, it was the first encyclopedia to include contributions from many named contributors, and it was the first general encyclopedia to lavish attention on the mechanical arts. Still, the *Encyclopédie* is famous above all for representing the thought of the Enlightenment. According to Denis Diderot in the article "Encyclopédie", the *Encyclopédie's* aim was "to change the way people think".

*ENCYCLOPÉDIE,*  
OU  
DICTIONNAIRE RAISONNÉ  
DES SCIENCES,  
DES ARTS ET DES MÉTIERS,  
PAR UNE SOCIÉTÉ DE GENS DE LETTRES.

Mis en ordre & publié par M. *DIDEROT*, de l'Académie Royale des Sciences & des Belles-Lettres de Prusse; & quant à la PARTIE MATHÉMATIQUE, par M. *D'ALEMBERT*, de l'Académie Royale des Sciences de Paris, de celle de Prusse, & de la Société Royale de Londres.

*Tantum series juncturaque pollet,  
Tantum de medio sumptis accedit honoris!* HORAT.

TOME PREMIER.



A PARIS,

Chez { *BRIASSON*, rue Saint Jacques, à la Science.  
*DAVID l'aîné*, rue Saint Jacques, à la Plume d'or.  
*LE BRETON*, Imprimeur ordinaire du Roy, rue de la Harpe.  
*DURAND*, rue Saint Jacques, à Saint Landry, & au Griffon.

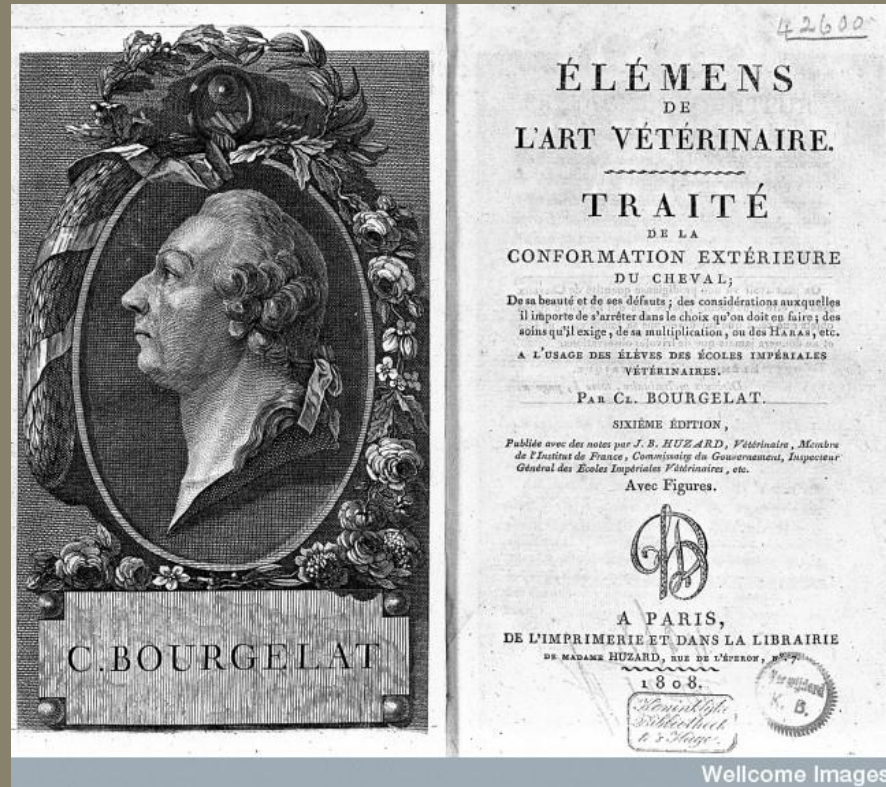
M. DCC. LI.

AVEC APPROBATION ET PRIVILEGE DU ROY.

According to : “J.L. Lupton, MRCVSL, In "Modern Practical Farriery", 1879, in the section: "The Diseases of Cattle Sheep and Pigs" pp. 1 states:" -- Bourgelat, a French barrister, observing that certain maladies were devastating the French herds, forsook the bar and devoted his time in seeking out a remedy for the then pest, which resulted in his foundig a veterinary college in Lyon in 1760, from which establishment he despatched students, with weapons in their hands all-necessary for combating disease by science with practice; and in a short time from this period, the plague was stayed and the health of stock restored, through the assistance rendered to agriculture by veterinary science and art." The plague to which Lupton referred was Cattle Plague, also commonly known by its German name, Rinderpest.”

[http://en.wikipedia.org/wiki/Claude\\_Bourgelat](http://en.wikipedia.org/wiki/Claude_Bourgelat)

One of many veterinary text books written by Bourgelat



Wellcome Images

[images.wellcome.ac.uk](http://images.wellcome.ac.uk)

A beautiful statue of  
Claude Bourgelat  
on the campus of  
the Ecole Nationale  
Veterinaire de  
Lyon, France









**Ecole Nationale  
Vétérinaire d'Alfort**

The second school was  
built in 1765 at Alfort, France.



The second school was built in 1764 at Alfort, France, became known as the National Veterinary School. The School of Alfort displayed three different curricula: the classic one for the future veterinarians, similar to Lyon, the curriculum for the inspectors of the stud farms and finally a specific teaching intended for the military veterinarians.

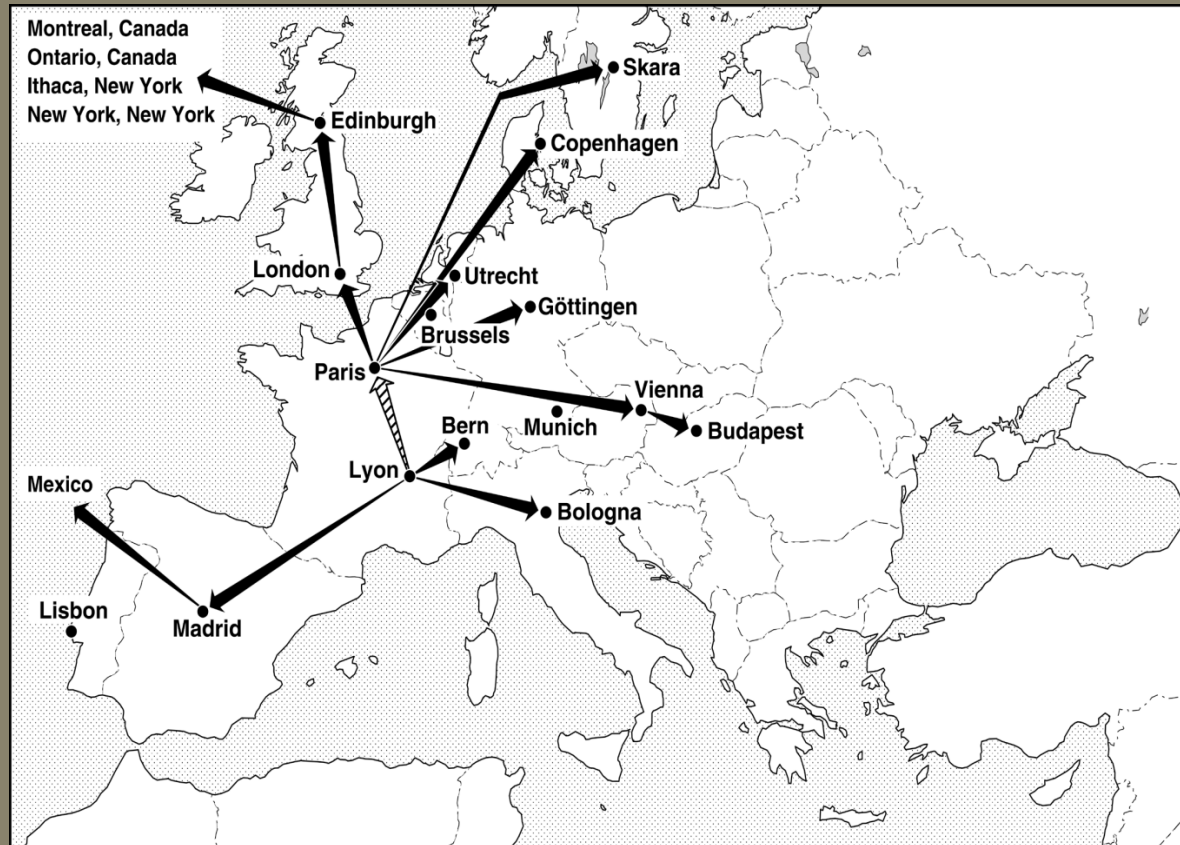
It is still today the location of the Alfort Veterinary School, the oldest school in the world remaining on its original site, on the outskirts of Paris. It also houses the Musee Fragonard, which dates from 1766 and contains an impressive collection of anatomical items.



The reputation of these two schools attracted students from all over Europe, who in turn became the first leaders of veterinary schools in their countries. Thus, other European countries soon recognized the value of university-level education for veterinarians and also began to establish schools. The school at Toulouse, was the 30<sup>th</sup> veterinary school to be developed in 12 countries over the next thirty years. The National Veterinary School of Toulouse was founded in 1828 at The University of Toulouse (the second-oldest university in France). All three of these veterinary schools are still in existence.

This remarkable map of Europe, shows the path of how the veterinary schools developed and the connection to North America

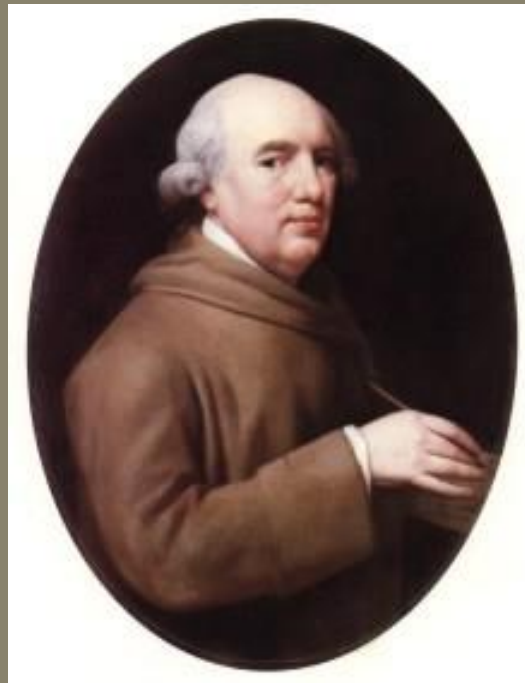
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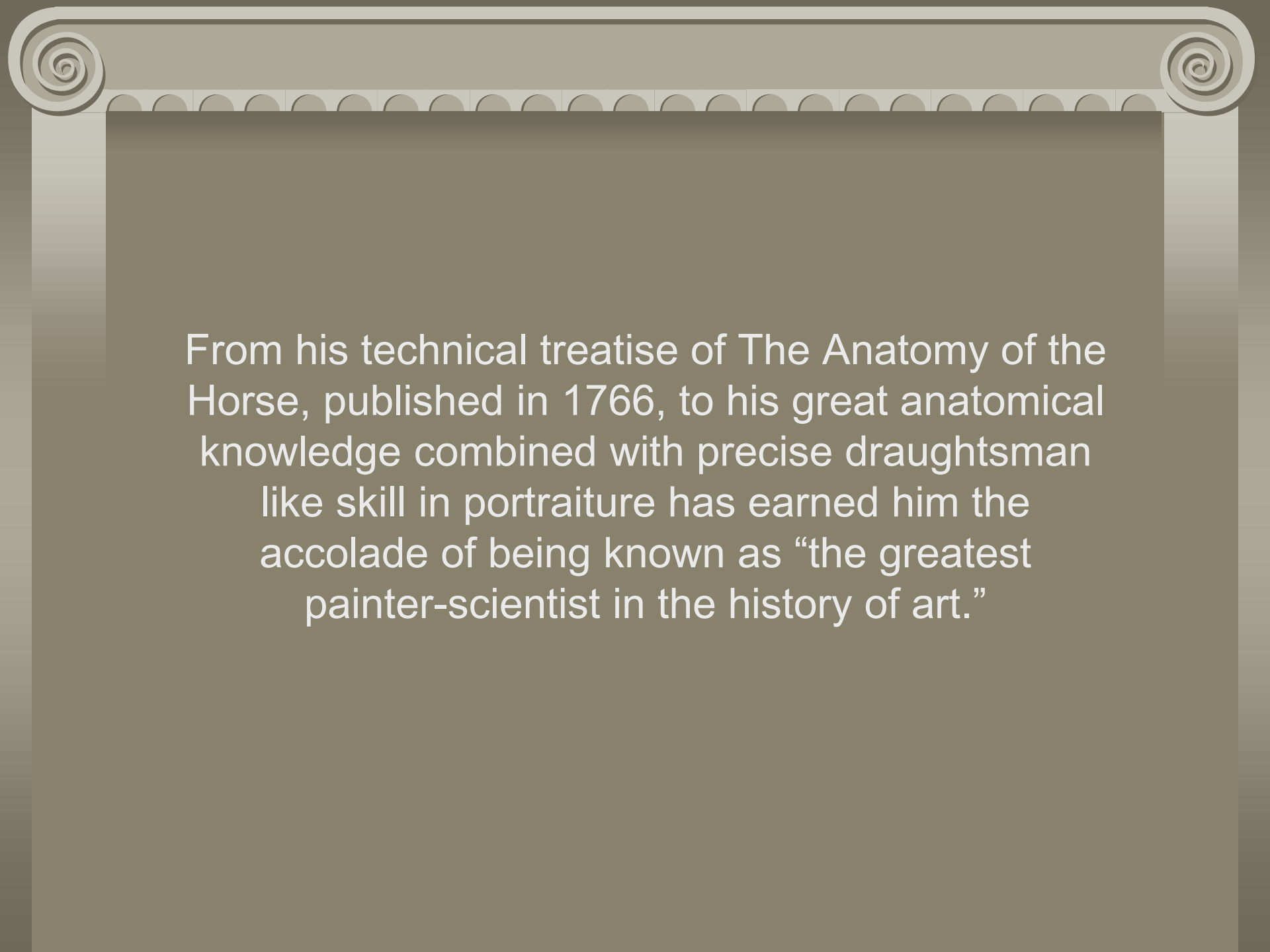


# George Stubbs – 1724-1806

London, England

Self-portrait



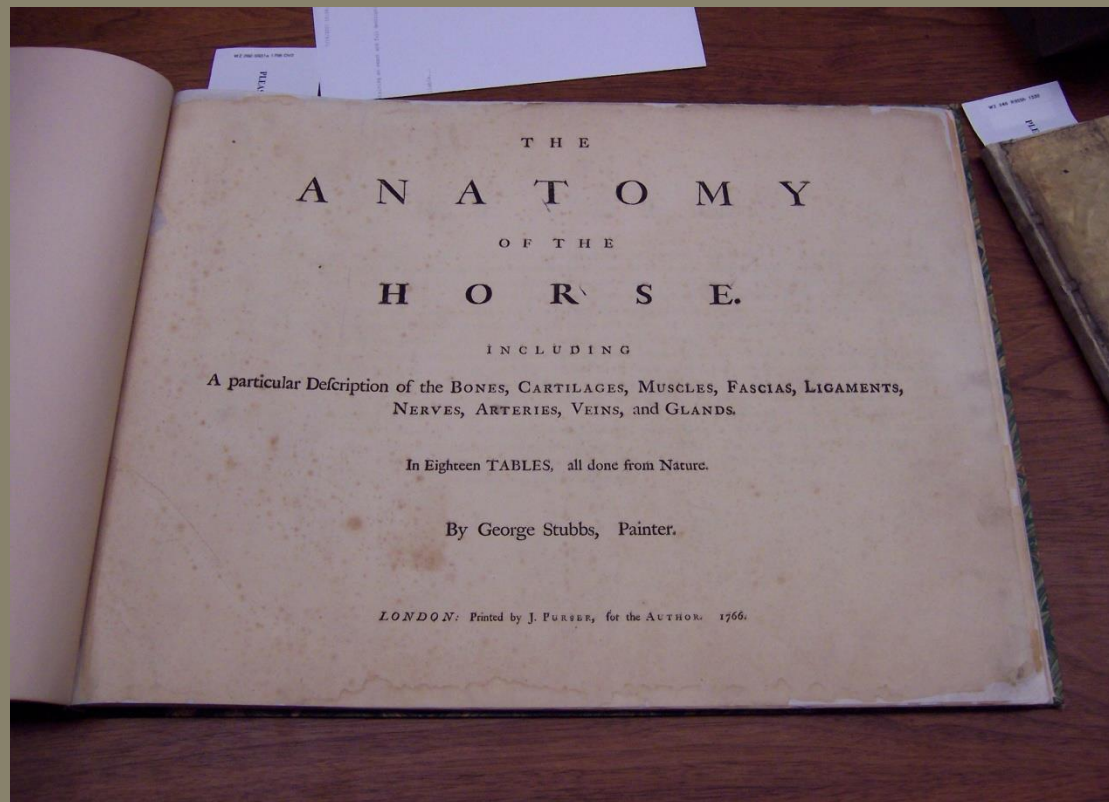


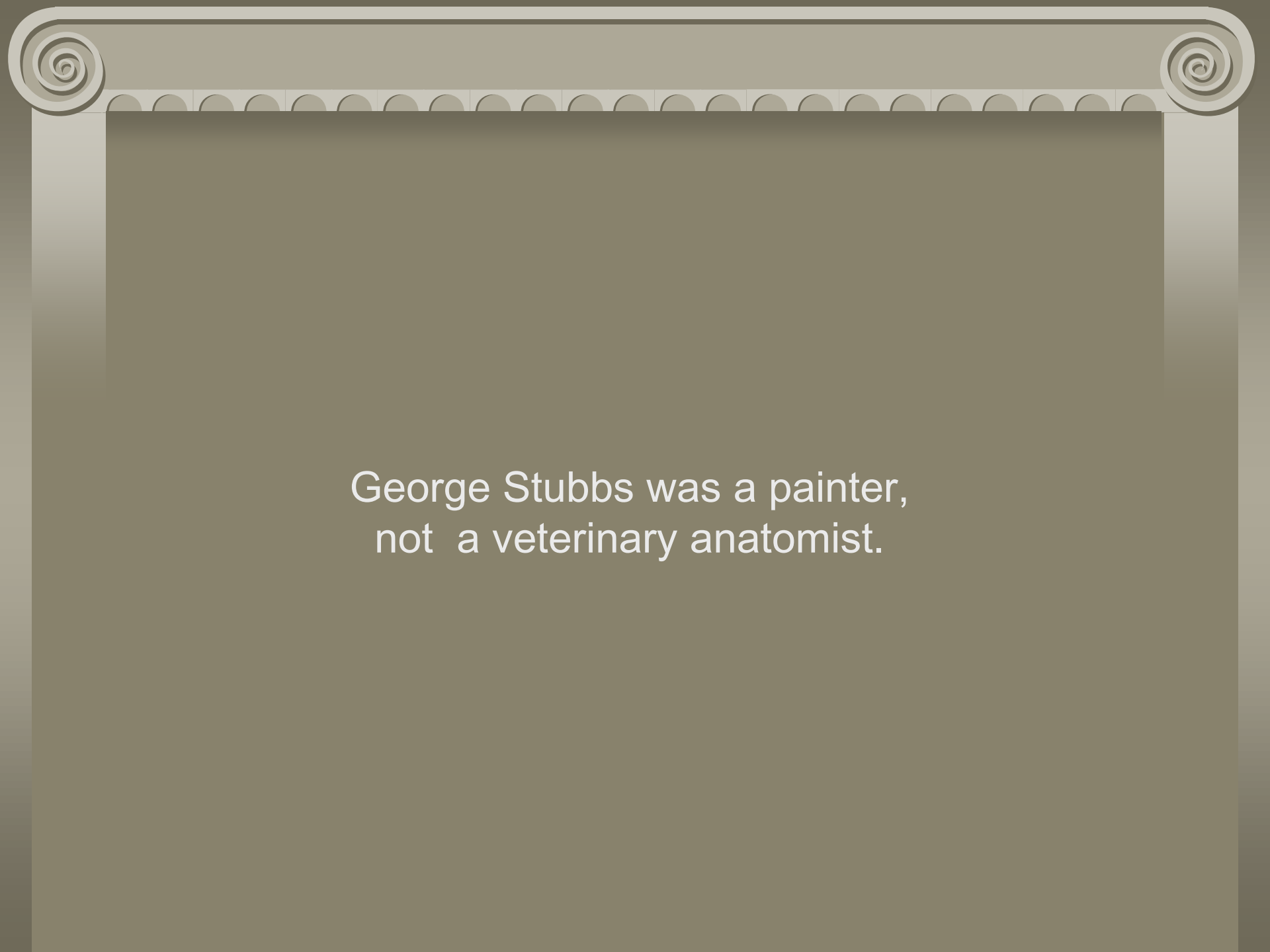
From his technical treatise of *The Anatomy of the Horse*, published in 1766, to his great anatomical knowledge combined with precise draughtsman like skill in portraiture has earned him the accolade of being known as “the greatest painter-scientist in the history of art.”

# George Stubbs - 1766

## London, England

Courtesy of the National Library of Medicine



A decorative frame with a light gray background. At the top, there is a horizontal bar with a series of small, light gray circles along its bottom edge. On the left and right sides, there are vertical columns with spiral scrollwork at the top. The central area is a dark gray rectangle containing white text.

George Stubbs was a painter,  
not a veterinary anatomist.









This is the classic anatomical plate of the horse, which made George Stubbs famous.



# The History of Equine Medicine in America



The Indians of North America had no domestic animals until they captured the offspring of horses and cattle that had escaped from the Spanish explorers during the early sixteenth century, and their animals received only the most primitive veterinary care. Animals brought to the Virginia and the New England colonies with the first settlers arrived in a nearly disease-free environment and despite generally poor care, disease did not become widespread until the late seventeenth century.



Care for the health of horses in the United States is a very recent phenomenon compared with Europe and Asia. In early U.S. history, trained horse doctors were virtually nonexistent.

A decorative frame with two columns on the left and right sides, each topped with a scrollwork ornament. The top edge of the frame features a series of small, repeating circular motifs. The background is a solid, light gray color.

The first American work to discuss animal disease, the anonymous Husbandman's Guide (1710), devoted a dozen pages to "The Experienced Farrier."

An early work of some consequence, because it and others of its kind prevented the development of scientific veterinary medicine for nearly a century, was *The Citizen and Countryman's Experienced Farrier* (1764)

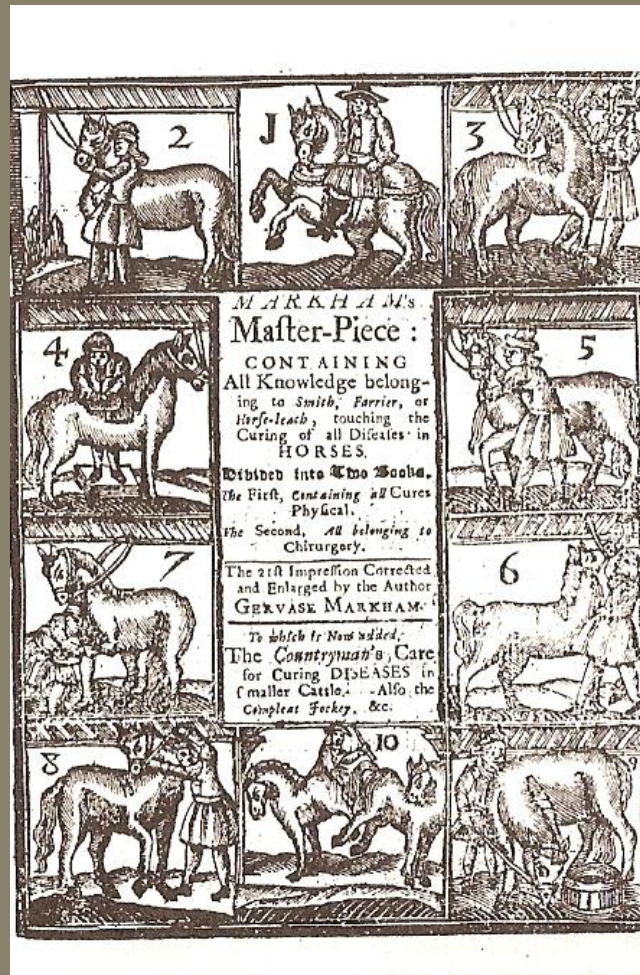
by J. Markham, G. Jeffries and *Discreet Indians*, which essentially rehashed a miserable British work, Markham's *Mafter-Piece* (1610).


Here is a picture of the cover of this book, printed 160 years after the invention of the Gutenberg press.

Johannes Gensfleisch zur Laden zum Gutenberg (c. 1400 – February 3, 1468) was a German goldsmith and printer, credited with inventing movable type printing in Europe (ca. 1450). His major work, the Gutenberg Bible, also known as the 42-line bible, has been acclaimed for its high aesthetic and technical quality.




# Markham's Master-Piece (1610)





Few serious animal diseases broke out in America before 1750; one of the first was “horse catarrh” (equine influenza) in 1699 and again in 1732 in New England. About 1745, a “mysterious malady” infected cattle from the Carolinas to Texas and decimated local herds along the way to northern markets. This likely was piroplasmiasis (Texas Fever), a blood disease transmitted by the cattle tick, which later threatened the entire cattle industry of the United States.




There were no graduate veterinarians in America until the early 1800's. Instead, as in early Roman days, the farriers were the ones who were trained in the home remedies and treatments for various forms of lameness and in the care of horses with medical problems.

The first record of the American Congress paying a farrier for treating a horse was in 1775, when George Washington hired one to attend to two ailing geldings that had recently been castrated.


## General George Washington

Here he is pictured, riding his saddle horse, known as Lindsay's Arabian, a beautiful, half-bred Arabian stallion





The following text will describe  
the common and acceptable  
treatment of the times.




Many treatments of man and beast were often the same. Many times it was the most rudimentary principles of care. They relied on the three “B’s” of treatment: bleeding, blistering and burning.

One must remember this was only about 200 years ago. Much has changed in both fields of medicine.



# President George Washington's Death

The details are well documented  
(on December 12, 1799)



Washington rode on horseback for about five hours through freezing rain, sleet and snow checking some improvements on his estate. He went out again the next day. Later that evening, he developed a fever and suffered labored breathing.



# Fleam

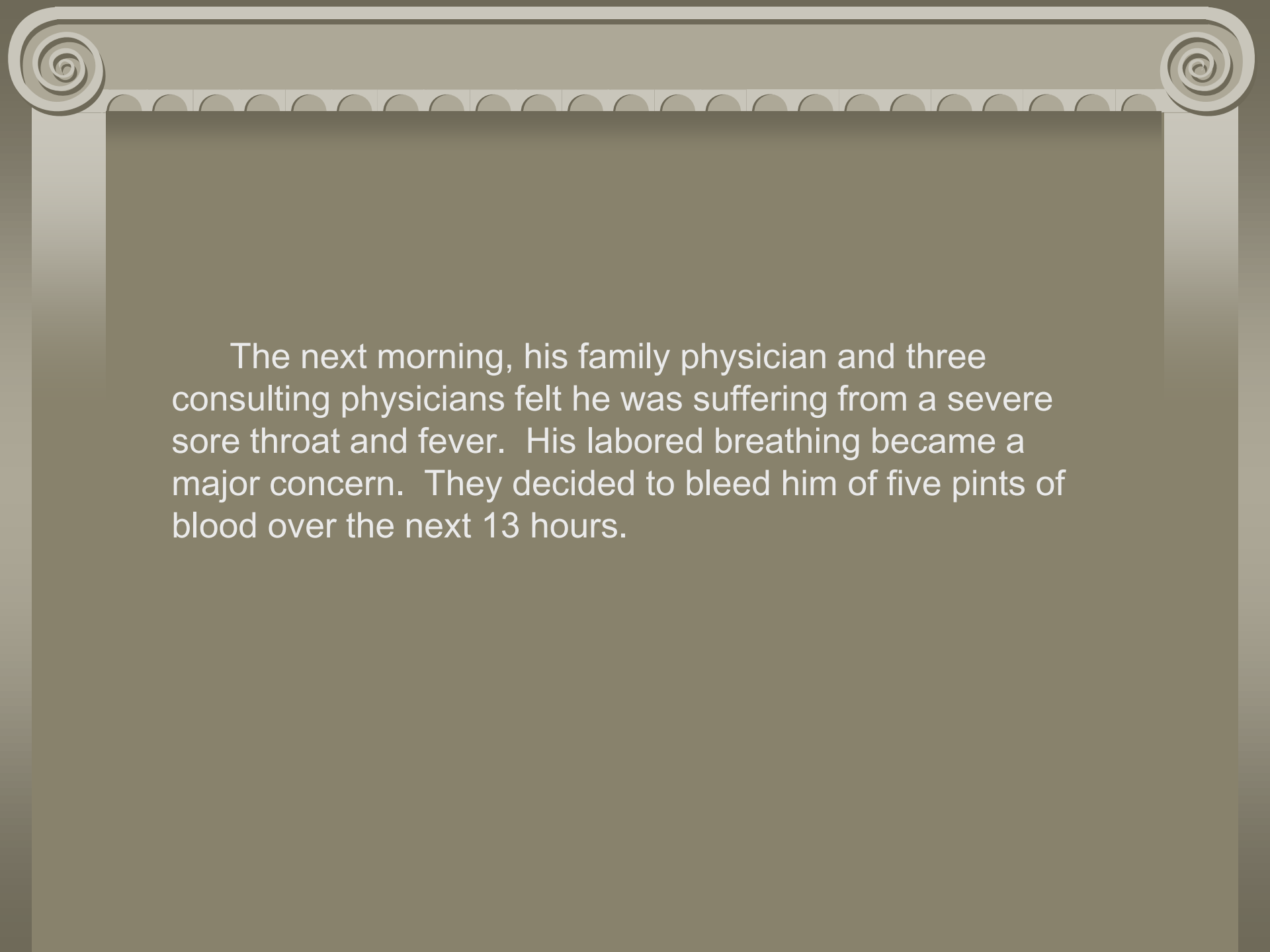
A blood-letting instrument used in Washington's time, was used on his livestock.



# Human fleam

(note this is spring loaded)





The next morning, his family physician and three consulting physicians felt he was suffering from a severe sore throat and fever. His labored breathing became a major concern. They decided to bleed him of five pints of blood over the next 13 hours.

## Washington underwent additional treatment

Washington agreed with this procedure as a treatment, as this type of blood-letting was a common treatment used on his livestock at that time.

His four physicians agreed to also coat his throat with a solution of mercury and mixture of crushed black beetles.



This was the prime example of the human medical practice of that day.

It may surprise many of you to hear, in the early 1960's, an elderly man was practicing "blood-letting" of horses as a treatment for founder in the rural area, north of Appleton, WI.

## Washington's Death

He submitted to this prescribed treatment by his physicians more from a sense of duty, than the expectation of relief. After a great deal of pain, he expressed that he might be permitted to die. He died on Dec. 14, 1799, in his home at Mount Vernon, Virginia, at the age of 67.




# Phlebotomy – blood-letting


A decorative frame with a dark grey background. At the top, there is a horizontal bar with a row of small, light grey circles. On the left and right sides, there are vertical columns with spiral designs at the top. The text "Who is a phlebotomist today?" is centered in the middle of the frame.

Who is a phlebotomist today?





The nurse in your doctor's office or in your hospital laboratory, is known to be called a phlebotomist. Next time you have a blood sample drawn, take notice of the nurse's or the clinical laboratory technician's name tag, most will have their name and the word, "Phlebotomist" below. As you may have noticed in the early 1990s, we find this term being used by the medical profession, yet not as the century old treatment.



The first university in the Americas was  
the National University of San Marcos, Lima, Peru  
on May 12, 1551.

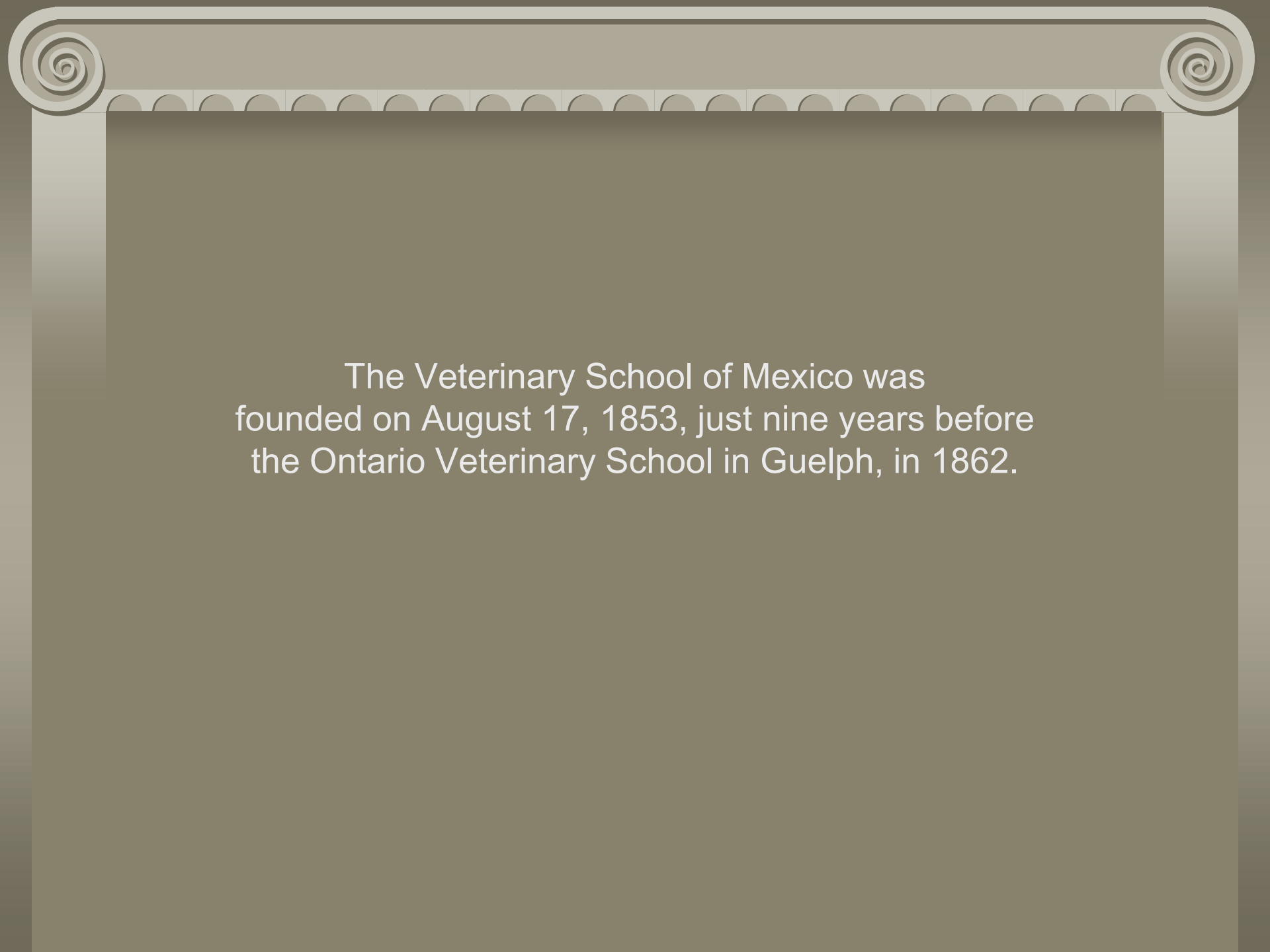
Seventy-five years later, Harvard was established in 1636,  
Harvard was based on the English model of a university,  
but symbolized the first attempt to build a university  
by an American colony.

# The First Veterinary School In The Americas Was In Mexico

Founded on August 17, 1853



National Autonomous University of Mexico

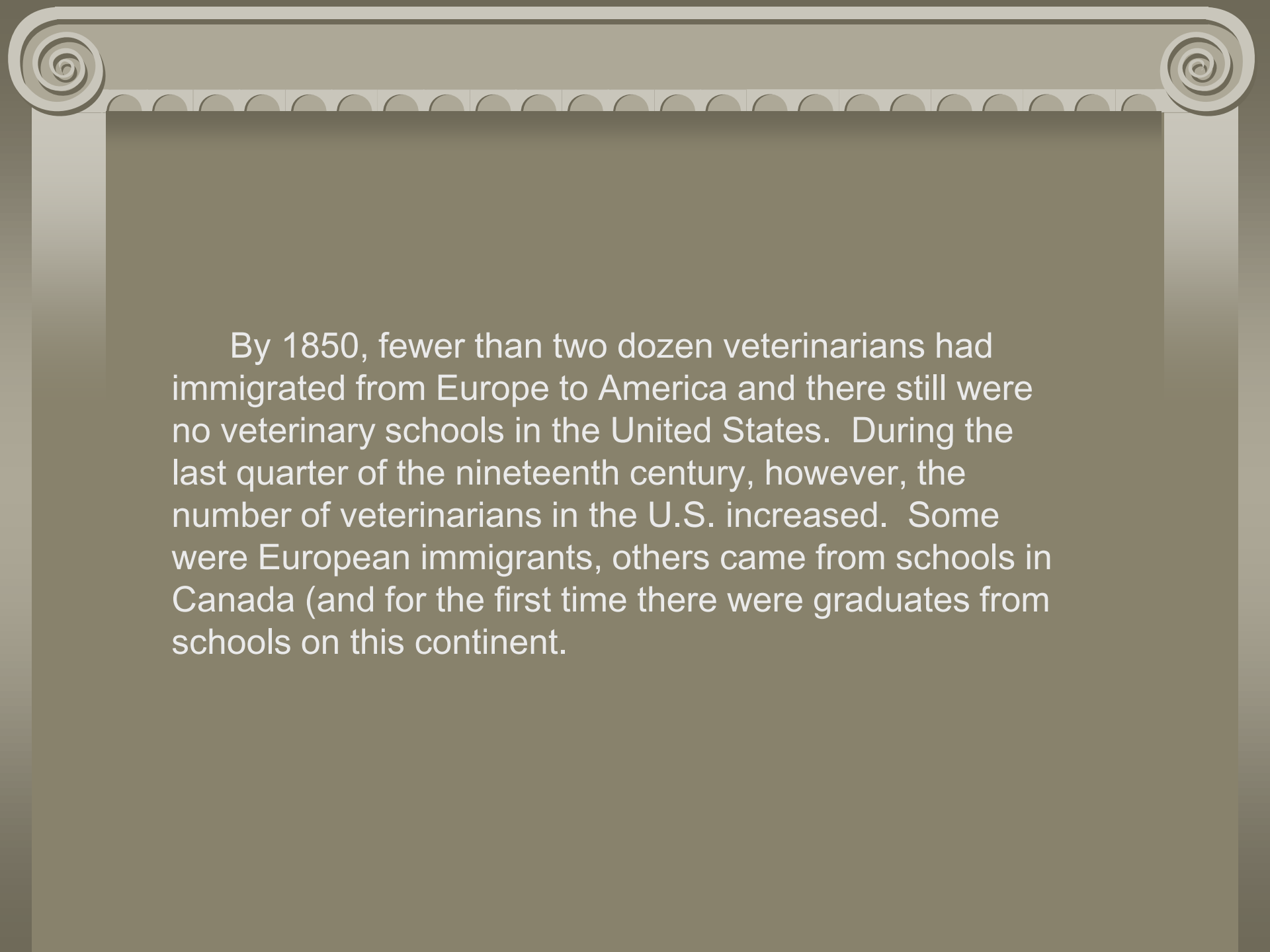
A decorative frame with two columns on the left and right sides, each topped with a scrollwork capital. The top of the frame features a series of small, repeating circular motifs. The background is a solid, muted green color.

The Veterinary School of Mexico was founded on August 17, 1853, just nine years before the Ontario Veterinary School in Guelph, in 1862.


## Early Veterinary Medical Education In North America Started In Canada

The two Canadian veterinary colleges were:

Ontario Veterinary School in Guelph, 1862  
Montreal Veterinary College in 1866

A decorative frame surrounds the text, featuring two columns with spiral capitals and a row of small circles along the top edge.

By 1850, fewer than two dozen veterinarians had immigrated from Europe to America and there still were no veterinary schools in the United States. During the last quarter of the nineteenth century, however, the number of veterinarians in the U.S. increased. Some were European immigrants, others came from schools in Canada (and for the first time there were graduates from schools on this continent).



In the next 100 years, the history of veterinary medicine will show the greatest progress than in any previous century. Many veterinarians living today can remember many of these advancements, when these achievements were great medical breakthroughs.


Montreal  
 Veterinary  
 College  
 founded in 1866  
 at McGill  
 University








# The Civil War 1861-1865



At the beginning of the war, both armies had a ready supply of healthy horses and mules. At the 1863 Battle of Chancellorsville, more than one-fourth of the Confederate cavalry was without mounts. That same year, in the United States there were only six veterinarians of unknown qualifications and a practically non-existent veterinary educational system. With six huge Cavalry Bureau depots of the large concentration of horses in close proximity to each other, they became fertile ground for the spread of infectious disease.




Because of the lack of trained veterinarians, care for the animals on which the country depended fell to charlatans, stock owners and farriers. At Giesboro Point depot alone, between January, 1864 till the end of the war: 17,147 horses died (this covered only 15 months of the war, over 11,000 of which died in the first 7 months). The highest overnight death toll occurred on January 13, 1865, when 188 horses were found dead the next morning.




This devastating disease was Glanders.

The Civil War ended in April of 1865.

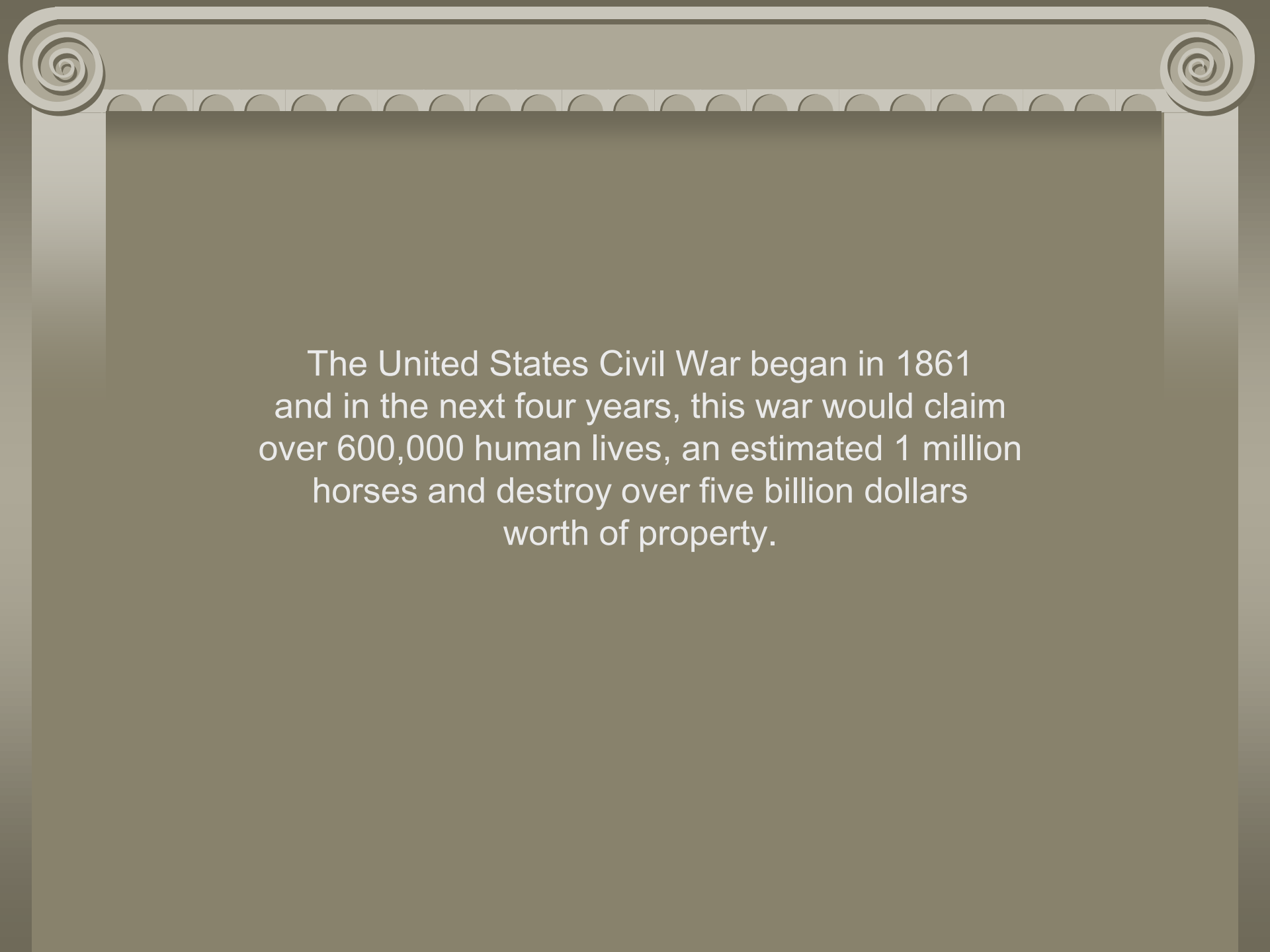


By the end of the Civil War, the Union had developed a greater respect for the trained veterinarians. The status of the military veterinarians would improve by leaps and bounds after the war. By 1879, just fourteen years after the war, there was a requirement that all appointed veterinary surgeons must be graduates of “established and reputable veterinary schools or colleges.”



The Civil War was a defining moment in veterinary history.

It was well known the Union cavalry started with only six veterinarians and learned later that they needed a much more educated staff of professional veterinarians to safeguard the large number of horses that would be required in a war like this.

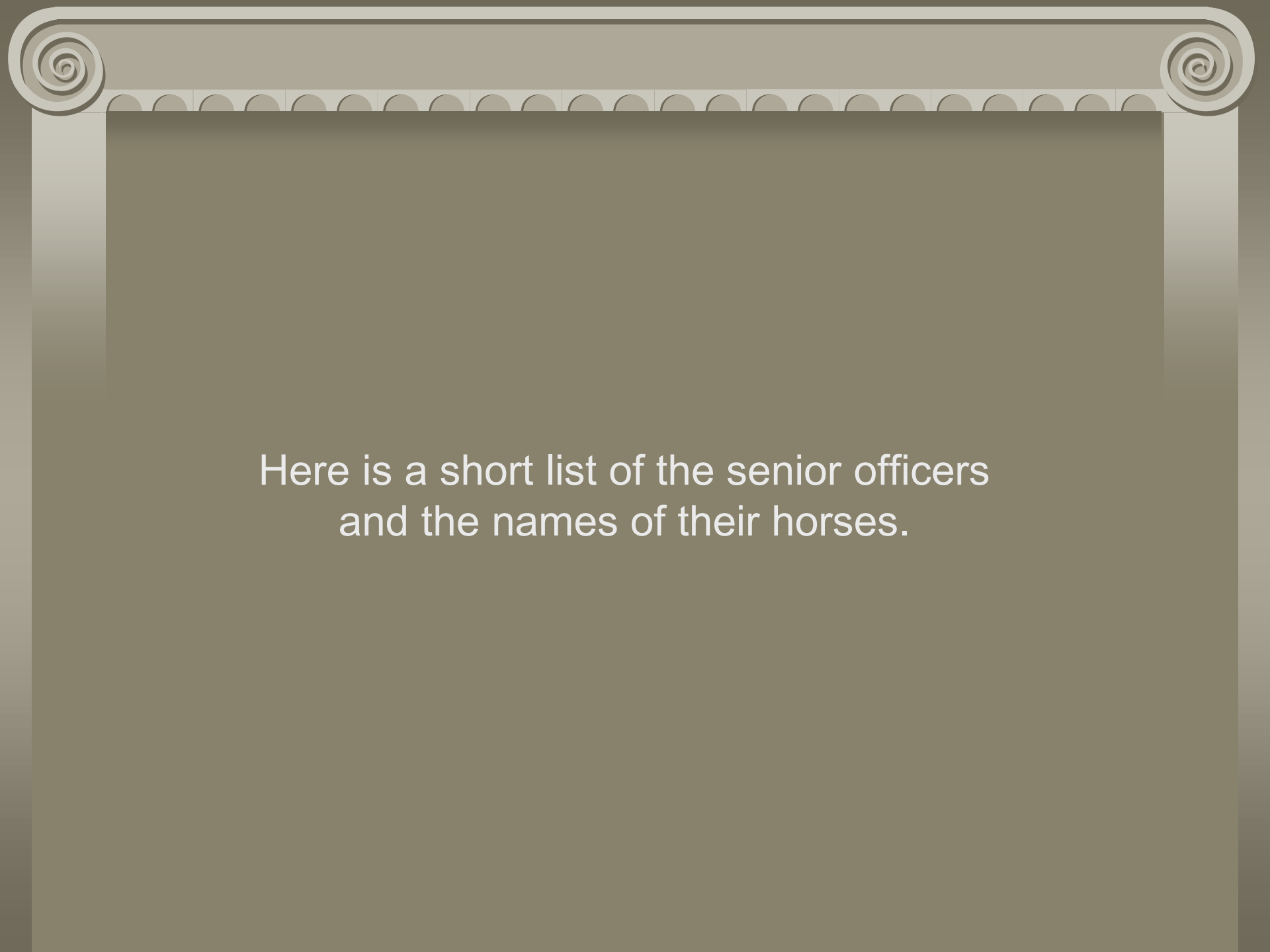
A decorative frame with two columns on the left and right sides, each topped with a scrollwork ornament. The top of the frame features a series of small, repeating circular motifs. The background is a solid, light gray color.

The United States Civil War began in 1861 and in the next four years, this war would claim over 600,000 human lives, an estimated 1 million horses and destroy over five billion dollars worth of property.

## The Civil War and the Horse

The officer's pride in his horse ran deep on both sides of this horrific war. The officer's horse and its well being was paramount to the success of the command of the regiment.





Here is a short list of the senior officers  
and the names of their horses.

Famous horses of the American Civil War  
and the senior officers who rode them:

Baldy (also Old Baldy) George G. Meade  
(favorite horse, wounded at First Bull Run  
and at Battle of Antietam)

Lucy Long Robert E. Lee (secondary)

Brown Roan Robert E. Lee (secondary)

Ajax Robert E. Lee (secondary)

Richmond Robert E. Lee (secondary)

Lexington William T. Sherman (favorite)  
Dolly William T. Sherman (secondary)  
Lancer George Armstrong Custer (favorite)  
Don Juan George Armstrong Custer (secondary)  
Methuselah Ulysses S. Grant  
(first horse on re-entering the Army in 1861)  
Rondy Ulysses S. Grant (first horse in battle)  
Fox Ulysses S. Grant (secondary)  
Jack Ulysses S. Grant (secondary)  
Kangaroo Ulysses S. Grant (secondary)

Cincinnati Ulysses S. Grant  
(favorite horse, acquired in 1864)



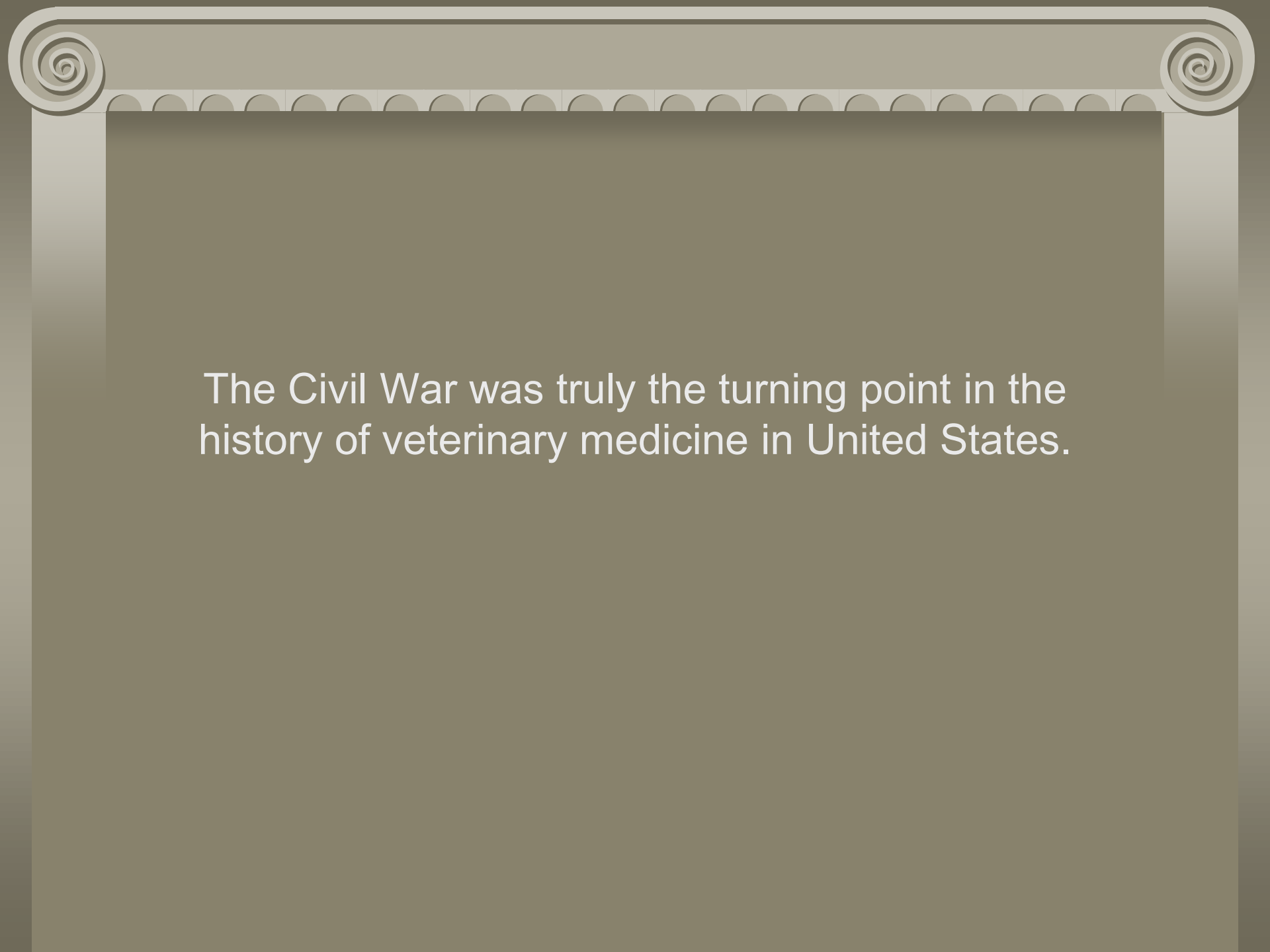
General Grant had a total of six horses during the and after the war, his favorite was “Cincinnati.” Grant was offered \$10,000 in gold but refused (today, that would be worth approx. \$400,000). He rarely permitted anyone to ride the horse – two exceptions were Admiral Daniel Ammen and Abe Lincoln. Grant was quoted in saying, “Lincoln spent the latter days of his life with me. He came to City Point in the last month of war and was with me all the time. He was a fine horseman and rode ‘Cincinnati’ every day.”

General Robert E. Lee and his  
famous horse Traveller




General Robert E. Lee had a total of five horses during and after the war. Lee bought Traveller for \$200 in September, 1861. Several years after Lee's death, Traveller died of tetanus and was buried on the campus of the Washington and Lee University, in Lexington, Virginia. General Lee died in 1870.

Traveller was a Confederate Pacer. It was fifteen years after Lee's death, in 1885, the Tennessee Walker was developed, by breeding of Black Allen, an Allendorf Trotter stallion and Maggie Marshall, a Morgan mare.




The Civil War was truly the turning point in the history of veterinary medicine in United States.






The Civil War offered many examples of the importance of veterinary medicine, especially in the military and to push for improvements in military veterinary standards, in veterinary education and in veterinary practice in general. This horrific war that turned death, disease and unscientific beliefs into an era of transition, a period of the early beginnings of modern veterinary medicine in America.



This was during the second year of the Civil War. Veterinarians from the North, felt the need to improve the veterinary profession in America. Nationwide changes were needed, a national veterinary organization was formed at a very critical time in our nation's history.




In 1863, there were only about  
400 veterinarians in seven eastern states.




The United States Veterinary Medical Association  
was formed on June 10, 1863 at  
the Astor House in New York City.




Built in 1836, this photo  
was taken early in 1913  
before June, when the  
furnishings were auctioned  
off and raised in December  
of that year.



The USVMA was formed with 38 charter members from seven eastern states. It was founded for the purpose of promoting quality veterinary services, humane treatment and self-improvement through education. At the first meeting, the organization adopted its seal, which featured a centaur – symbolic of the antiquity of veterinary medicine; established its motto, “Non Nobis Solum” [Not For Us Alone].” In its first 10 years, the USVMA got off to a rough start, as it grew very slowly, gaining only one new member in its first decade.




By 1875, membership began to increase. That year, 11 new members were admitted, they constituted 25 percent of the membership. Members were a mix of veterinary school graduates and non-graduates. It was not until 1885, that the USVMA become a national organization, by then the 41 officers and committee members represented 20 states. There were only 35 states entered in the Union at the time.



Although non-graduates were still admitted into membership, none held office or committee assignments. Beginning in 1887, they were barred from joining the association altogether.

This information is from an article by Dr. J. Fred Smithcors, in the AVMA 100<sup>th</sup> Year Anniversary Edition of the JAVMA, 1998.

Significantly, in November of the same year the USVMA was organized, President Abraham Lincoln gave his famous Gettysburg Address.

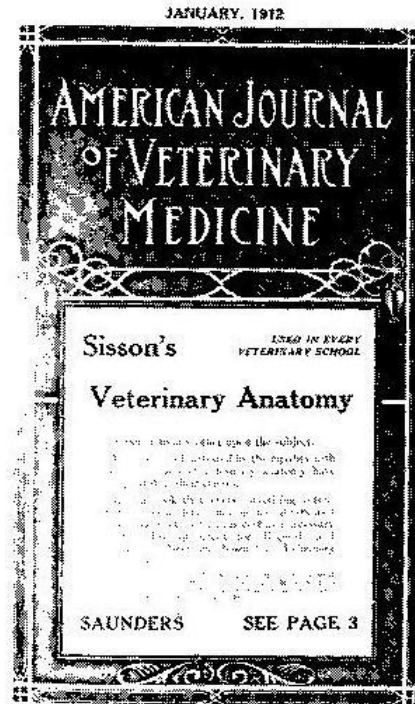
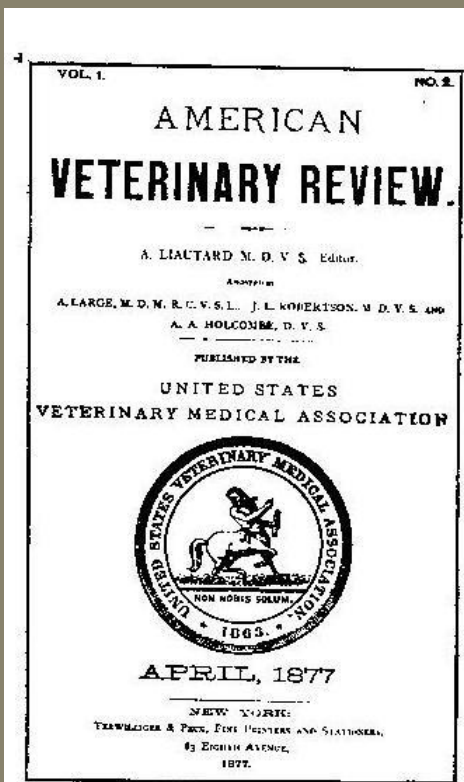


Many believe the USVMA's greatest achievement was the founding of the American Veterinary Review in 1877.


In 1915, this journal was purchased by the AVMA and became the Journal of the American Veterinary Medical Association.




# The American Veterinary Review 1877 - 1915



*Farrier's Magazine*, 1818.  
*American Veterinary Review*,  
1877-1915.  
*American Journal of Veterinary  
Medicine*, 1910-1920 (now  
VM/SAC)




The USVMA changed its name in 1898, to the American Veterinary Medical Association and is now the largest, veterinary organization in the world. The AVMA became a powerful advocate for professional veterinarians and for scientific veterinary education.




By 1913, the AVMA had grown to 1650 members. Membership requirements were revised so that being a graduate of a three-year, accredited veterinary school become mandatory (prior to this, self-proclaimed practitioners could be members of the association).

Four women graduated from U.S. Veterinary schools in 1915 and began practicing.



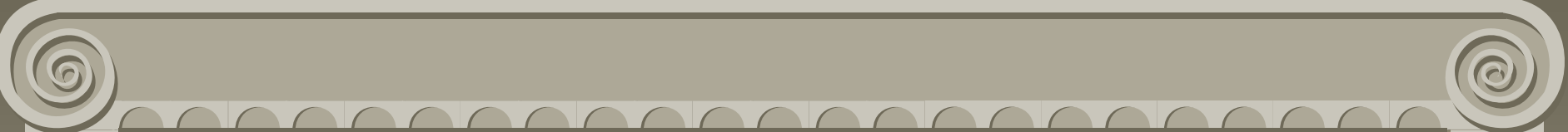
The AVMA has an active membership today of 60,895 veterinarians in private clinical practice in the United States. There are 3,699 veterinarians that are exclusive equine practitioners in the U.S., as of 2009.

Source: (AVMA records, as of December 31, 2009)



The demand for horsepower  
world wide was overwhelming

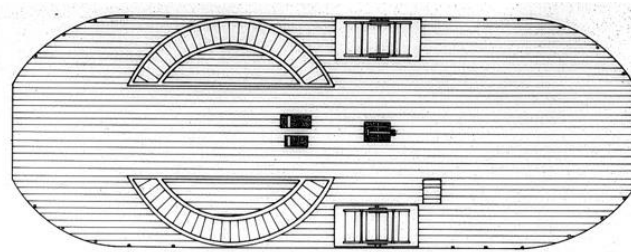
During the 19<sup>th</sup> century, the demand  
for horsepower became so important,  
that the horse was used for every  
means of power in the early  
stages of the industrial revolution.



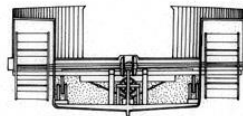
From 1820's till the 1930's, horsepower was used in various ways. Here are some examples in which the horse provided power before the steam engine became more practical.

# Horse treadwheels

## Trautwine's Six-Horse Horizontal-Treadwheel Ferry (From Boyer, Annals of Camden, 1921)



Six-horse ferry



Delaware River Crossing  
Between Camden, NJ,  
Philadelphia, 1828.

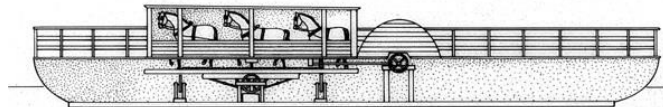




Figure 18, Crisman and Cohn



Horseboats were cheaper than steamboats, but they had disadvantages. The whim mechanism and walkway required considerable deck space. Walking in tight circles all day was hard on the horses, resulting in dizziness or disorientation. Some horses when put out to pasture, continued to walk in circles. The treadwheel brought about a revolution in team-boating.





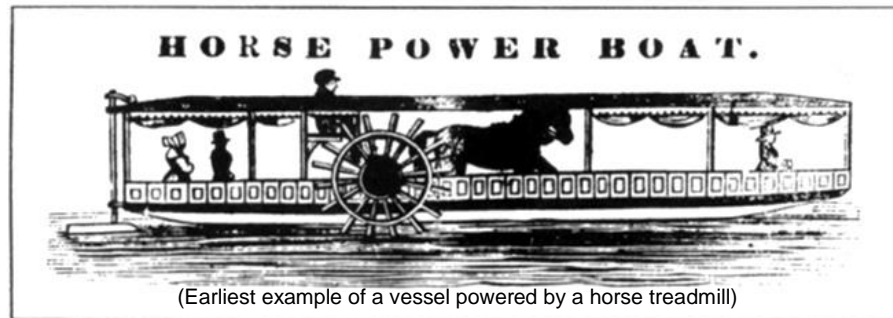
This consisted of a revolving circular platform or turntable, upon which the horses walked in place; instead of the horse turning in a circle, the circle turned underneath the horse.

There were 2-horse, 4-horse, and 6-horse versions. There were early efforts with an inclined treadwheel, but installation was difficult and it was also difficult to keep it aligned properly.

# The first one horse powered inboard power boat


## Rufus Porter's Horse-Power Boat

(From the *American Mechanic*, 24 September 1842)

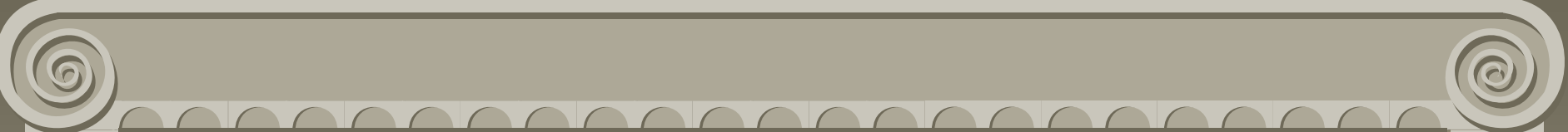


(Earliest example of a vessel powered by a horse treadmill)

*Figure 29. Rufus Porter's Horse Power Boat. From the American Mechanic, 24 September 1842. 9.1 meters in length by 1.8 meters in breadth, 9.6 km/hr, \$200.*



The treadmill's compact size opened up new possibilities for transportation on land and water. Treadmills were light, portable, cheap and easy to maintain because replacement parts were readily available. They also revolutionized the design of horse ferries.



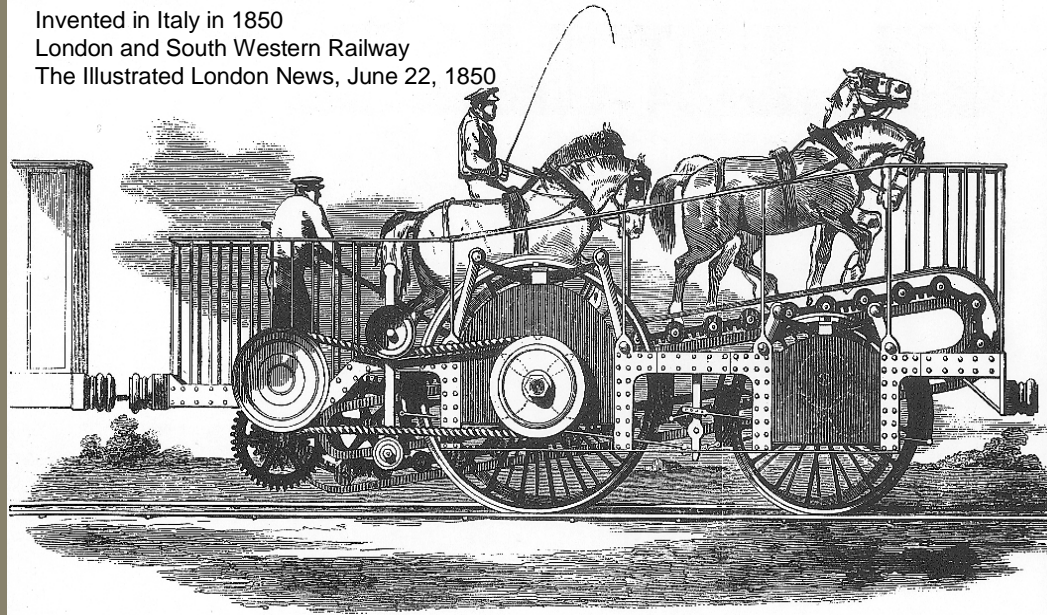
They could be attached to the side of a boat's hull and did not have to be placed beneath the deck like the horizontal treadwheel. Rufus Porter's 'Horse Power Boat', published in the American Mechanic in 1842, is the earliest example of a vessel powered by a horse treadmill. Designed for the shallow rivers, this was a flat-bottomed craft 9.1 m in length by 1.8m in breadth.

The horse and machinery occupied the middle third of the boat and were managed by the steersman, who also controlled the rudder. Porter's prototype cost \$200 and the average speed was 9.6 km/h. Porter said, "We may see farmers harness their horses in a boat, to take a ride up or down a river, as they now do in a buggy or gig."  
"Most new horse ferry designs had 2 treadmills, one on each side of the boat driving its own paddlewheel. Inclined treadmills, due to economics and ease of maintenance, powered most horseboats built after 1850.


Developed in Italy in 1850 and started  
operation in London, June 22, 1850

## The Locomotive Impulsoria (From Animal-Powered Engines by Majors)


Invented in Italy in 1850  
London and South Western Railway  
The Illustrated London News, June 22, 1850



This plate was taken from the Illustrated London News



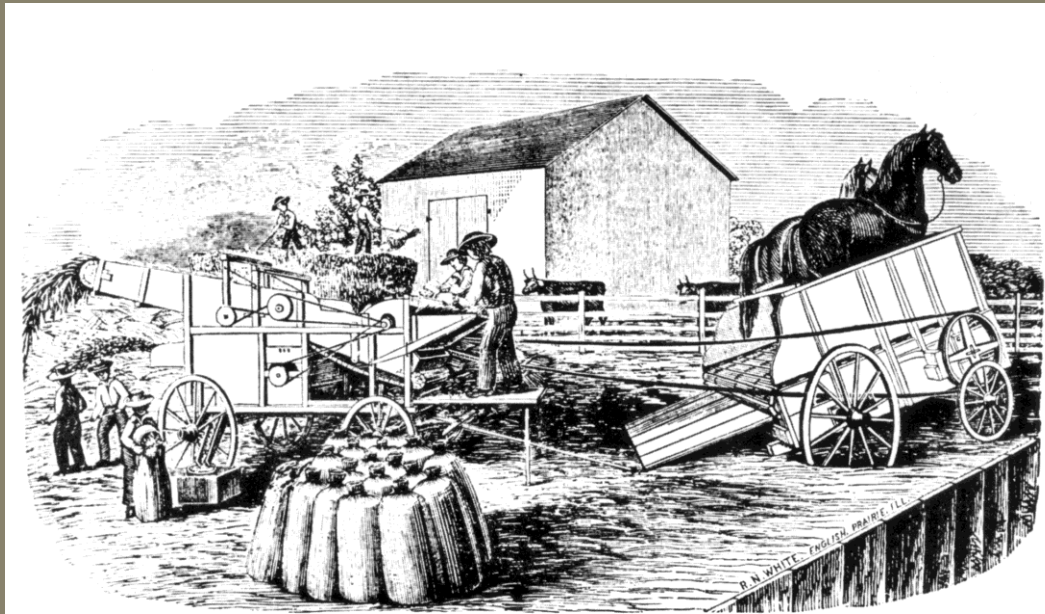
In Italy there has always been a shortage of good coal, lignite being all that is available, and in 1850 the Impulsoria was developed. The locomotive Impulsoria was invented in Italy in 1850 and demonstrated on the London and South Western Railway. This invention is an elaborate version of the 'Cycloped', a method of transport rejected by the Rainhill locomotive trials over two decades previously, was proposed as an alternative to the 'costly' steam locomotive.



This was a four-horse oblique treadmill in which the horses were harnessed in pairs in front of each other. The four horses stood on a circular platform which slipped backwards as they moved forwards, turning the single driving wheel in such a way that by means of a clutch it could reverse or stop or have variations in forward speed without the horses having to change direction or vary their pace.



## A remarkable machine, able to power various types of equipment

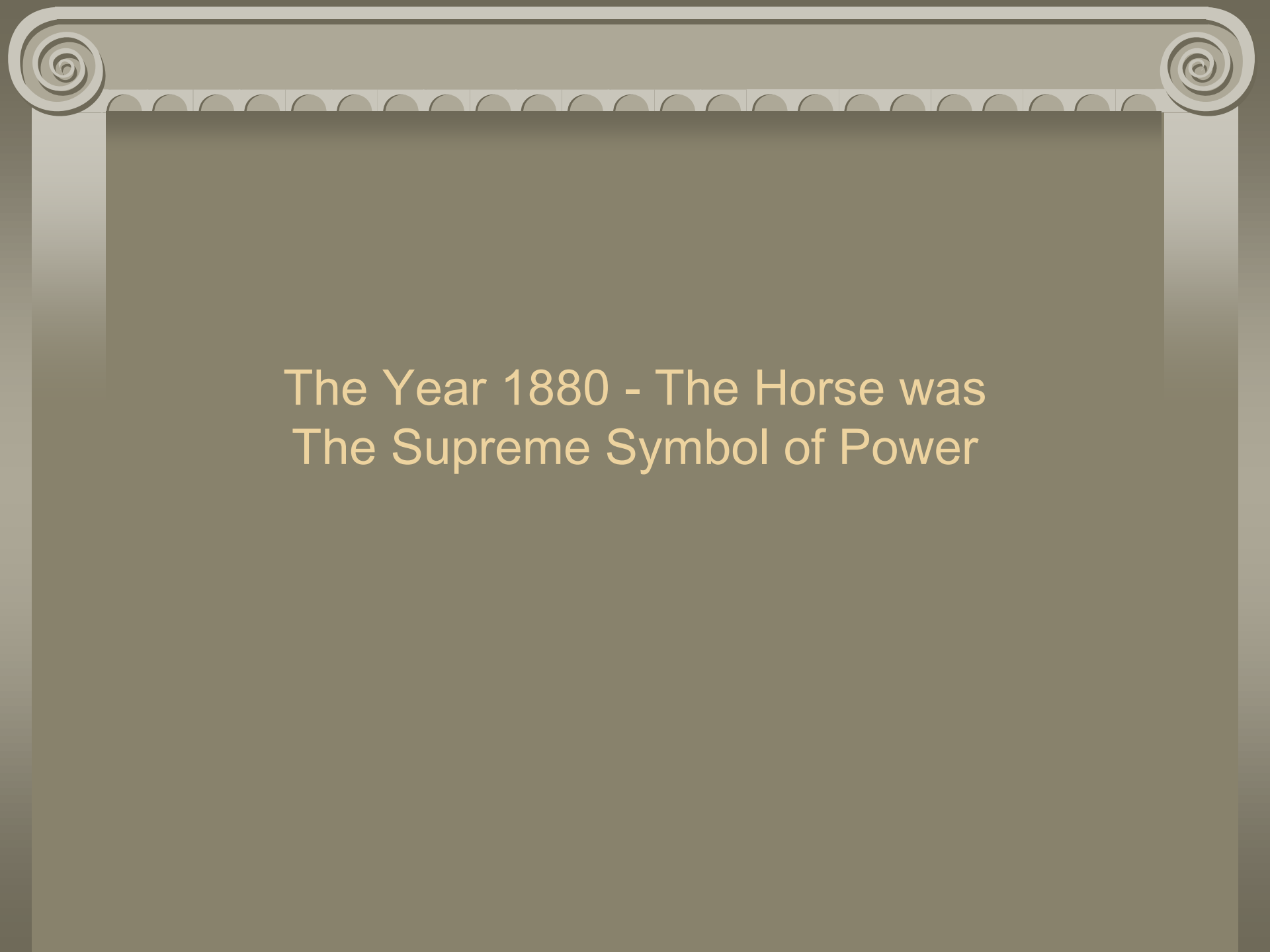


Thresher powered by horse treadmill. From the J. I. Case catalogue, c.1855


From *Farm Tools through the Ages* by Michael Partridge, New York Graphic Society, Boston, 1973.

This a thresher powered by 2-horse treadmill from the J.I. Case catalogue, c 1855. In 1847, 'Wheeler's Horse-power' package included a single-horse treadmill, a threshing machine and a grain 'shaker', all for only \$110 (the treadmill alone cost just \$75).

A farm implement dealer in Wisconsin, who grew up on a farm near Des Moines, IA, in 1930's, remembers a horse treadmill unit was used on his father's farm, just like the one pictured here.

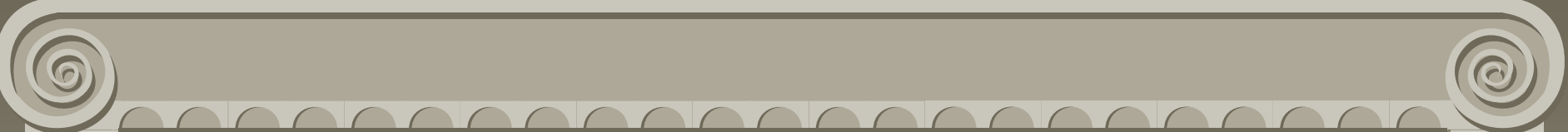


The Year 1880 - The Horse was  
The Supreme Symbol of Power



The year 1880 – The Horse was the Supreme Symbol of Power. This was the age when veterinarians became known as “Horse Doctors.” The bulk of America’s veterinarians were in horse practice and many had developed specialties in their various phases.

During this time, many private veterinary colleges were offering two year programs (four months per year). A large percentage of draft & pleasure horses made up the greater part of the veterinary practices in the U.S. at that time.




The intense degree to which the veterinary profession depended on the American horse economy can be realized when we consider that, about 1900, many of the American veterinarians believed that they would have to seek a new livelihood because of a growing interest in a new invention.



What was this new invention?



It was the bicycle!




The bicycle would be the modern transportation of the Twentieth Century. The veterinary profession appeared doomed because “Millions Of Wheels” were in use all over the world. According to many veterinarians, the “horseless carriage” or “Automobile” would not develop into anything, as they were bulky, impractical and broke down frequently. It was “Just a fad,” but the bicycle was a great threat to the veterinary profession.




# The bicycle

J.K. Starley, in 1886 developed  
the Safety Bicycle






Bicycling was then a predominantly middle-and-upper-class activity. Since at \$25 apiece, a good quality bicycle would have cost the equivalent to two to three weeks pay for an average wage earner in that day. The average wage was 22 cents per hour. The average worker made between \$200 and \$400 per year. A competent accountant could expect to earn \$2000 per year, a Dentist \$2500 per year.




A veterinarian would earn between \$1500 and \$4000 per year and a mechanical engineer about \$5,000 per year. Ninety percent of all doctors had no college education. Instead, they attended so-called medical schools, many of which were condemned in the press.

One of the main benefits from this era of the bicycle was better roads. Thus, these turn of events offered this luxury to 85 to 90 percent of Americans who did not own a bicycle in 1899. America's foremost bicycling club, the League of American Wheelmen, spent much of its money and energy, lobbying for hard-surfaced highways. More than five million bicycles were being ridden on American streets and roads in 1899, with at least 100,000 riders braving the mud, sand and ruts of Wisconsin's turn-of-the century thoroughfares.




Detroit Woodward Avenue in Detroit, Michigan carries the designation M-1. So named because it was the first paved road anywhere.

Bicycles continued in their popularity until automobiles began to catch on in larger numbers between 1910 and 1920.



The Twentieth Century was to be a period in which mechanical power was to become supreme: The city horse was to be replaced by motor-driven contraptions called automobiles.

The twentieth century was to bring the end of the great age of horsepower and an age marked by centuries of toiling farmers, weary travelers and gallant warriors, an age that began thousands of years ago, when invading barbarian hordes introduced horses into the civilized nations of Asia Minor.



America's first veterinary surgeon was John Haslam, a graduate of the Veterinary College of London (established 1791) who came to New York in 1803. His few writings in the agricultural press mark him as one whose rational practice was ahead of his time. By 1850 only a dozen or so graduate veterinarians practiced in America.

Until about 1870 the numerous agricultural journals, several of which advertised "a free horse doctor with every subscription," supplied most contemporary information on animal disease.

# ANESTHESIA

The greatest triumph achieved in any phase of human or veterinary medicine in the history of the world up to this time was the discovery of anesthetics and the success in their use.

Ether – 1842

Nitrous oxide – 1844

Chloroform - 1847



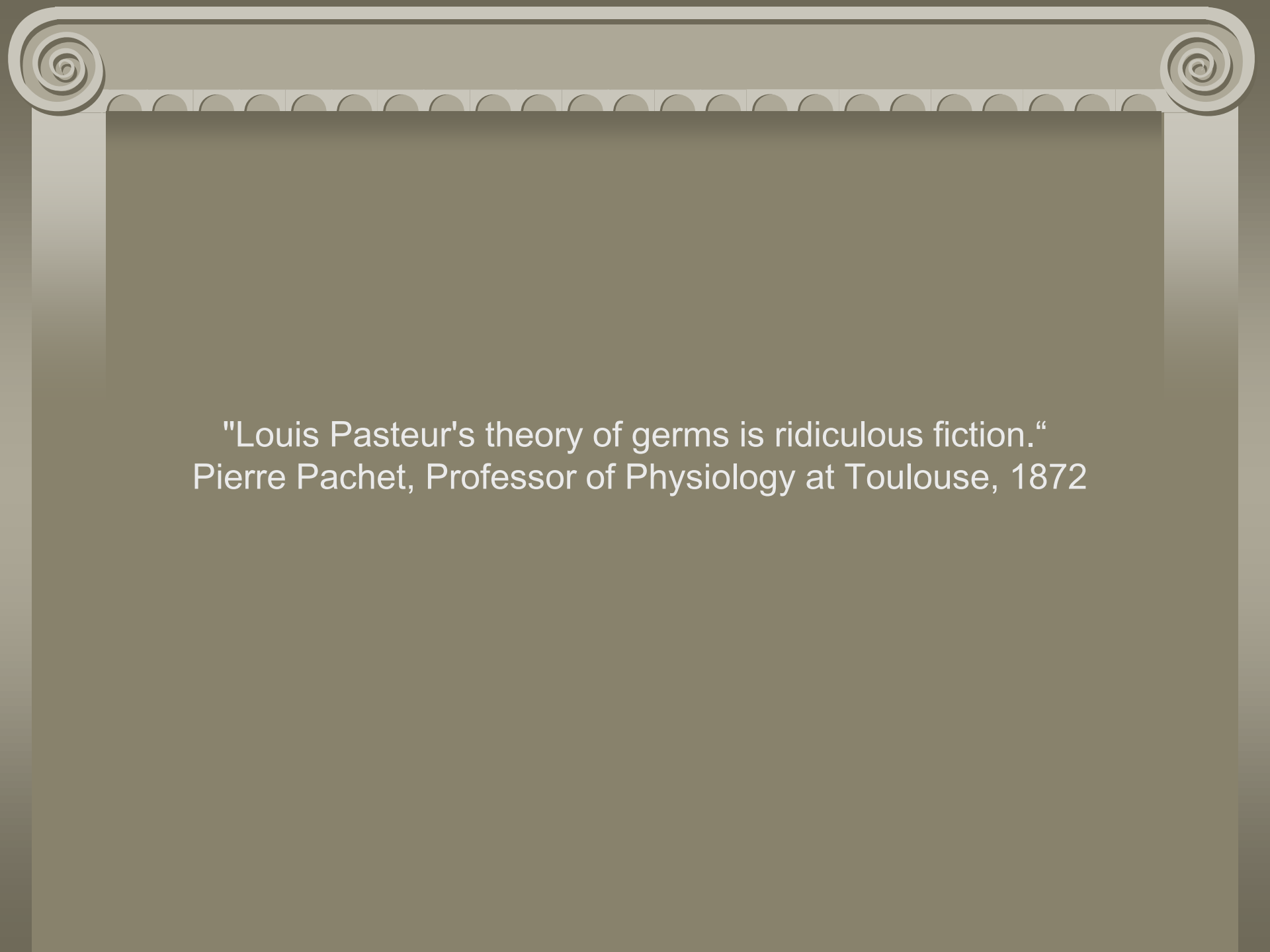
# Dr. Louis Pasteur

Pasteur was a French microbiologist who proved the germ theory of disease.




# PASTEURIZATION

In 1866, Louis Pasteur discovered the process of pasteurization, he found that spoilage organisms could be inactivated in wine by applying heat at temperatures below its boiling point. The process was later applied to milk and remains the most important operation in the processing of milk. This discovery lead to the prevention of raw milk spreading bovine tuberculosis, a great scientific achievement of that day.



"Louis Pasteur's theory of germs is ridiculous fiction."  
Pierre Pacht, Professor of Physiology at Toulouse, 1872



Dr. George Dadd, a British physician who emigrated to America and turned to veterinary practice about 1845, opened a proprietary school, the Boston Veterinary Institute, in 1855. His school had only six graduates when it closed in 1858.

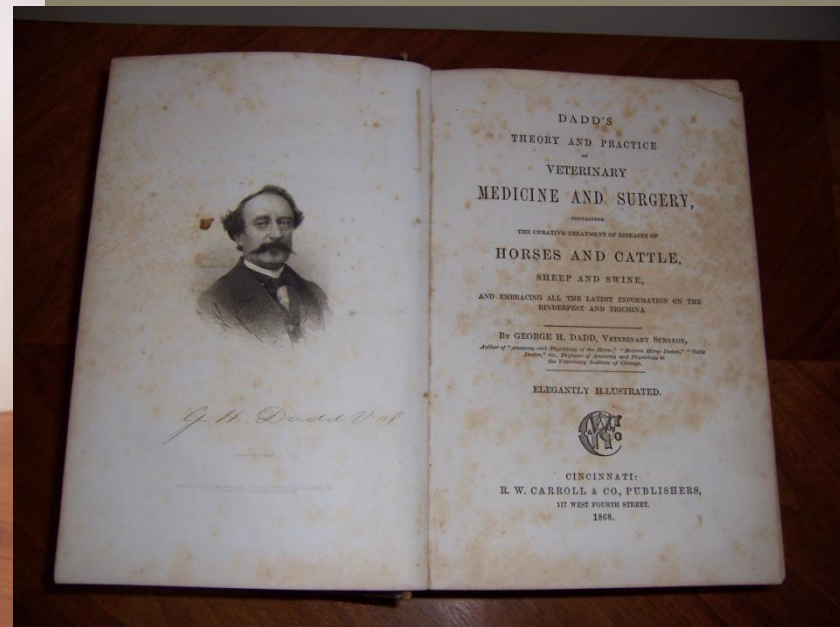
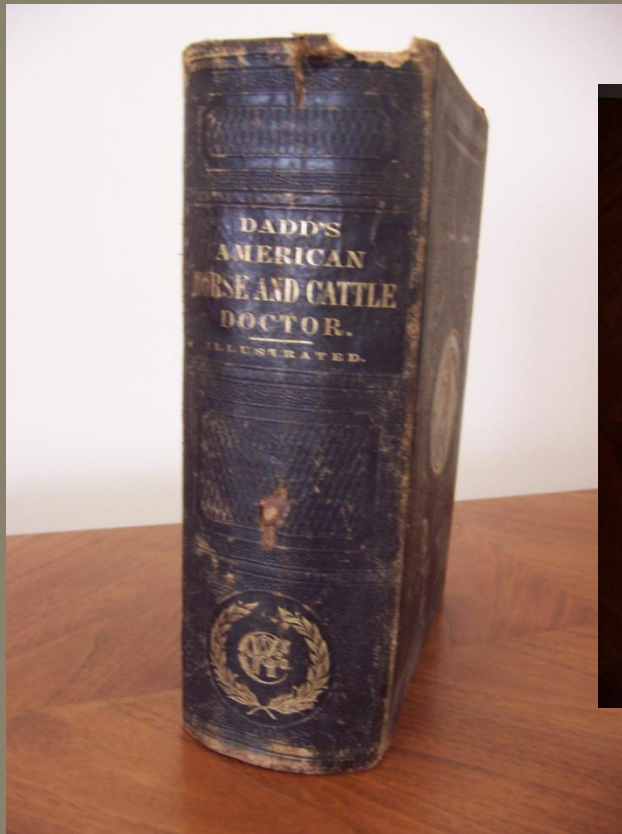
Dr. Dadd was an early advocate of rational medical treatment and humane surgery, including the use of general anesthesia.

Dr. George Dadd also founded and edited the  
*American Veterinary Journal*  
(1851-1852; 1855-1859).

The first veterinary journal to have a real impact  
was the *American Veterinary Review*, established  
in 1875 by Alexandre Liautard.

The American Veterinary Medical Association  
purchased the *Review* in 1915 and since has  
published it as the *Journal of the American  
Veterinary Medical Association*.

# Dadd's Theory and Practice of Veterinary Medicine and Surgery – 1868 by George Dadd, Veterinary Surgeon






# The Early American Veterinary Medical Education

Veterinary medical education in America actually began with the establishment of private schools.

In 1807 the eminent physician, Benjamin Rush from Pennsylvania (one of the signers of the Declaration of Independence) had advocated the truly first American veterinary college to be established at the University of Pennsylvania, but this did not materialize until 1884.

Interesting note: Dr. Rush, through his writings and lectures, had become probably the best known physician and medical teacher in the land. Yet, his professional peers particularly attacked his theory of bleeding and purging for the treatment of disease. One must remember, President George Washington had just died only eight years before, with this type of practice.





With the pressing need for veterinarians created by an ever-increasing demand for horse power, private American veterinary colleges grew rapidly. Beginning in 1868, the first veterinary school in the nation was Cornell Veterinary School. The second was founded in New York City in 1875.

The following is a list of some of the most prominent schools:

American Veterinary College, 1875, in New York City (later merged with) and New York College of Veterinary Surgeons (1857-1899).

Chicago Veterinary College (1883-1920),  
Kansas City (Missouri )Veterinary College (1891-1918),  
McKillip Veterinary College (Chicago 1892-1920),  
Indiana Veterinary College (Indianapolis 1892-1924),  
Grand Rapids (Michigan) Veterinary College and  
Saint Joseph's Veterinary College (Saint Joseph, Missouri) and then, all of these closed by the year 1927.

Out of a total of 26 private veterinary schools,  
four of the most successful schools are  
listed below:

**Chicago Veterinary College (2610)**

**Kansas City Veterinary College (1789),**


**McKillip Veterinary College (Chicago-1212)**

**Indiana Veterinary College (Indianapolis-884),**

with about 6,495 graduates during their existence.

The remaining 22 schools had approximately  
3,500 graduates between them, with an average  
of less than 200 graduates per school.

These schools depended entirely on student fees,  
offered a two-year curriculum and emphasized  
the study of the horse.



Two four-month sessions which culminated in granting the degree of Veterinary Surgeon (VS). Many of the early schools, the professors also operated private practices and part of the pupils' training consisted of joining their professor on his own practice calls.

Veterinary practice, which began with self-proclaimed farriers and cow doctors (who often called themselves veterinary surgeons), shifted to the hands of graduates who were concerned primarily with the horse.


# The Chicago Veterinary College



THE CHICAGO VETERINARY COLLEGE, 2538-35-37-39 STATE STREET, CHICAGO.


## The Chicago Veterinary College

Founded in 1883 and during this brief period of 37 yrs., this college had been one of the largest veterinary schools in the nation. Their curriculum consisted of a four month session each year, over a two year period, they were referred to as "two-year"men.



The Chicago Veterinary College started with eight students their first year in 1883 and had the highest enrollment of 437 in their last year of operation.

Of all of the 26 private American veterinary colleges, this college graduated the largest number of veterinarians (2610) over a 37 year period.




Then the curriculum in 1911, consisted of six and half months over three winter sessions, beginning in the middle of September of each year and ending in the middle of the following April. “Students are recommended to pass the summer intervening between the sessions of the regular course with a qualified veterinary practitioner.”



One of the graduates from this college, Dr. D. E. Baughman, who graduated in 1892, became the founder and president of Fort Dodge Laboratories, Fort Dodge, IA.

(Photo is courtesy of Ft. Dodge Animal Health, Inc.)





This college could be considered an American “international” veterinary college, as there were graduates from various foreign countries. As an example, there were many from Canada, but there were graduates from other countries: Argentine Republic (Argentina), Paraguay, Brazil, Porto Rico, Cuba, the Philippines and even China?

Dr. A.V. Curdumi (1909) Martinez, Guantanamo, Cuba

Dr. Dunn Platt (1910) San Juan, Porto Rico

Dr. F.M. De Mattos(1914) Taubate, South Paulo, Brazil, South  
America

Dr. J.A. Salcedo (1915) Asuncion, Paraguay, South America

Dr. J.A. Espindola (1909) Victoria, Argentine Republic, South  
America

Dr. M.A Bazan (1910) State Veterinarian, La Rioja, Argentine  
Republic, S.A.

Dr. A.A. Rodriquez (1910) Parana, Argentine Republic, South  
America

Dr. F. Gettler (1899) U.S. Army, Manila, Philippine Islands

Dr. Jas. Hill Jr. (1900) Manila, Philippine Islands

Dr. J.R. Shand, (1907) from Tientsin, China

The sad story of Suyenobu Ijichi, from Japan was in the Class  
of 1918-19, which didn't graduate, as the college closed in  
1920.

The Chicago  
Veterinary College  
published this  
notice in 1915

1915

### Openings for Veterinarians

IS the practice of veterinary science lucrative? What are the opportunities for Veterinarians? These questions are frequently asked.

The field of general practice in veterinary science is the least crowded of the professions, and applications for young graduates reach The Chicago Veterinary College yearly by the score. It is rarely that the College can fill a request for the reason that its graduates have locations in view prior to entering and nothing can induce them to change. General practice is very lucrative—the most lucrative of all branches of veterinary science.

Other opportunities that may be mentioned are:

In the Bureau of Animal Industry, United States Department of Agriculture, hundreds of veterinarians are employed as executives, inspectors, investigators and superintendents of quarantine stations at salaries ranging from \$1,400 to \$3,000 per annum.

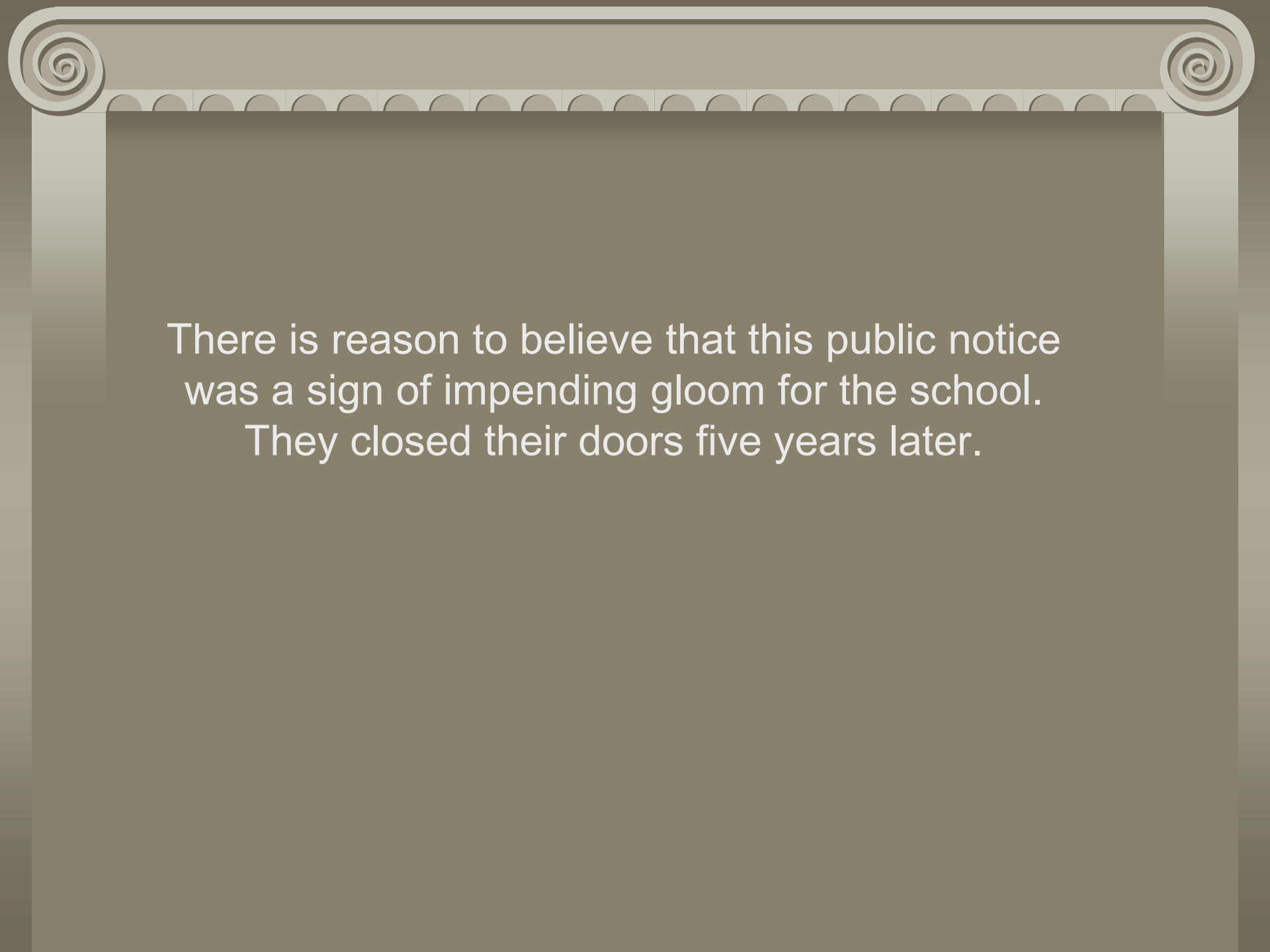
Veterinary Colleges and State Agricultural Colleges are constantly seeking additional teachers, at salaries ranging from \$1,200 to \$3,000.

In the various States and Territories, State and Assistant State Veterinarians are employed at salaries ranging from \$1,200 to \$3,000.

In nearly all the large cities, and in many of the small towns, veterinarians are employed in the Health Department as inspectors of slaughter-houses, dairies and meat markets at good salaries.

In the Army there are two Veterinarians for each regiment of cavalry, the salary varying from \$1,500 upwards, with perquisites.

Graduates of The Chicago Veterinary College may be found in all the branches of veterinary service outlined.



There is reason to believe that this public notice  
was a sign of impending gloom for the school.  
They closed their doors five years later.

## The Chicago Veterinary College notice read as follows:

### Openings for Veterinarians

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What are the opportunities for Veterinarians?

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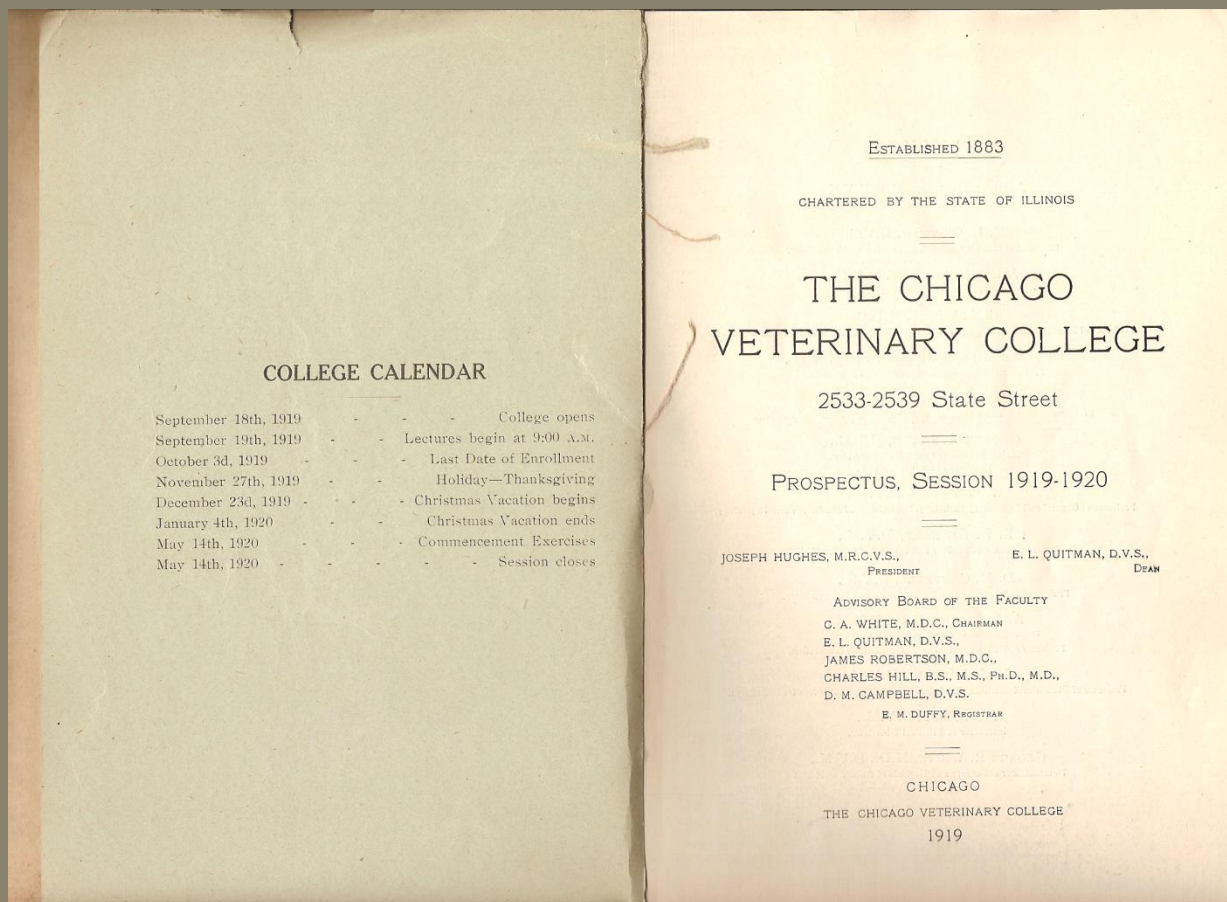


In 1916, the college adopted a four-year course, the sessions started yearly in September and ended in the following May.

The class of 1916-1917 was the last veterinary class to graduate from this college.

The opening address of the Chicago Veterinary College of the last year of operation was delivered in the College Auditorium, on Thursday, September 18<sup>th</sup>, 1919 at 8:00 PM.

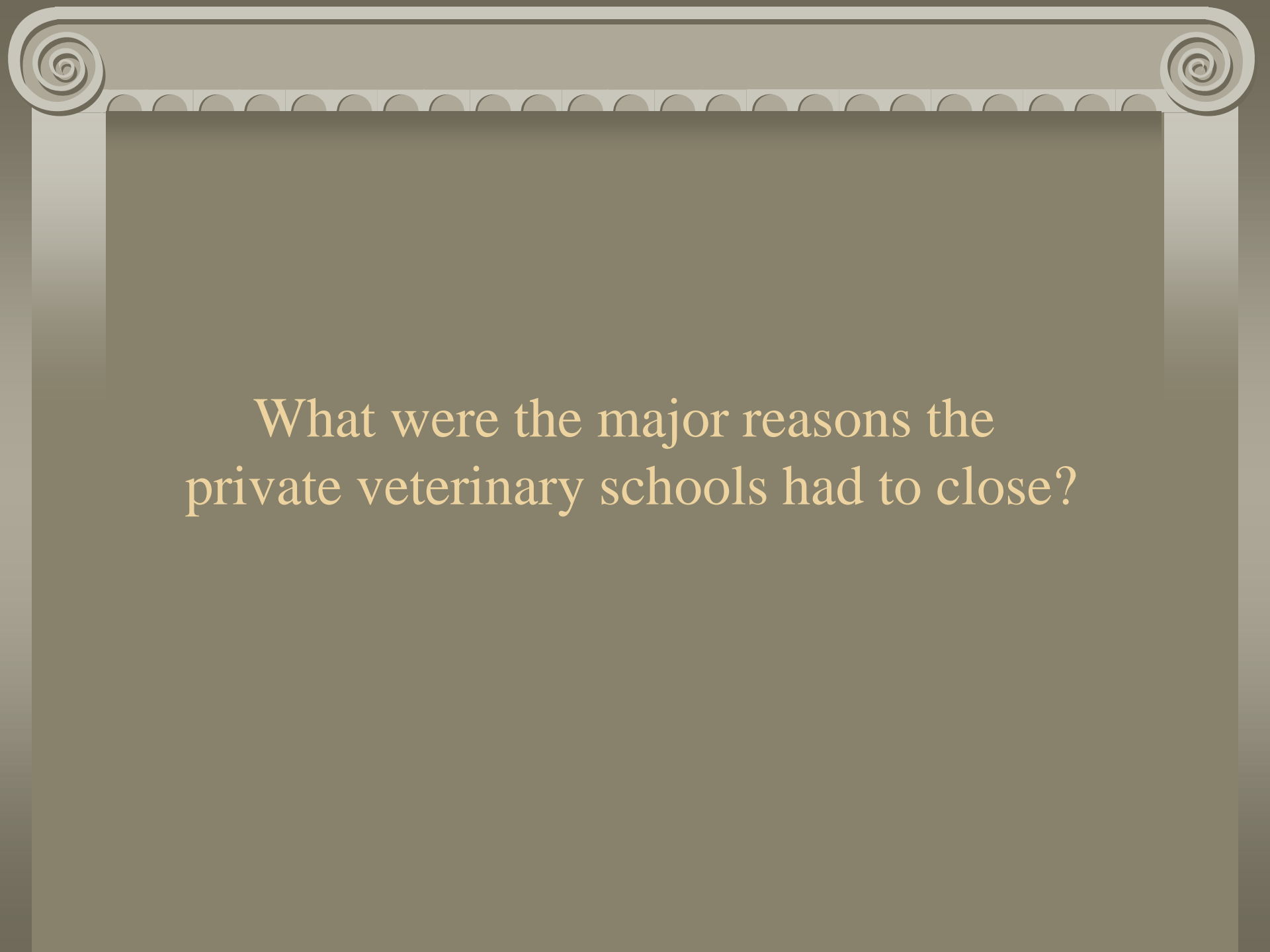
# The last prospectus, Session 1919-1920 of the Chicago Veterinary College



The last of the private veterinary schools was the United States College of Veterinary Surgeons in Washington, D.C. (1894) and it was suspended in 1927.

From 1857 until 1927, a period of 70 years, these 26 private veterinary schools graduated nearly 10,000 veterinarians.


Then changes of World War I drove the developing force of the “machine age,” which in turn was the end of the horse age. After the war, few of the private schools could survive.



What were the major reasons the private veterinary schools had to close?

## Seven of the most important reasons:

- (1) In 1879, the War Department developed a policy, which required new veterinarians they employed to be graduates of established and reputable schools or colleges.
- (2) The Department of Agriculture followed suit in 1894, and in 1897 included the requirement that the applicant's alma mater have a three-year curriculum.


- 
- (3) In the 1890's, an economic depression was in place.
  - (4) The fear of the popular bicycle would replace the pleasure horse.
  - (5) More importantly was the drop of enrollments in the private colleges. Due in part of the rise of urban employment that was abundant, and the need of a four-year education in a profession the might not exist in the very near future.

(6) The AVMA made two bold moves, first in 1906 they began a program of accreditation process, visiting and reviewing some of the veterinary schools. Then in 1910, the AVMA developed a proposal to upgrade its membership requirements, such as new members must be graduates of schools that required at least two years of high school education for entry and had a four-year college curriculum, which Iowa State had been the first to implement in 1903.

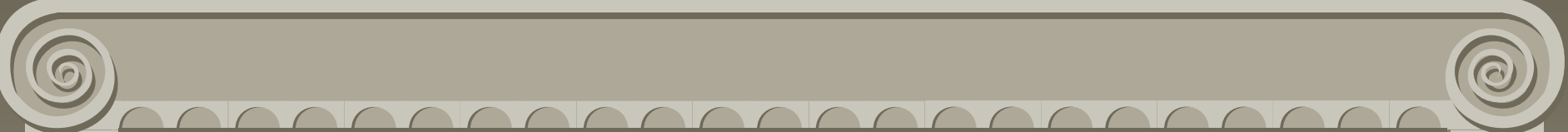
(7) Lastly, all in all, there were 26 independent veterinary schools between 1852 and 1927. The private veterinary schools of the 19<sup>th</sup> and early 20<sup>th</sup> centuries were, for the most part, products of the industrial revolution; such schools were founded because of a need for veterinarians created by an ever-increasing demand for horse power.

Then changes of World War I drove the developing force of the “machine age,” which in turn was the end of the horse age. After the war, few of the private schools could survive.







After 1913, schools began to drop off the AVMA approved list, either due to closure or failure to maintain sufficiently high standards. By 1927, all of the private veterinary colleges had closed.



The horse was the animal that received the greatest attention from the U.S. practitioners during the most of the nineteenth century, since it supplied most of the power needed for transportation and farming.



As the disease rate among livestock soared, the veterinary profession began to change and started to devote more of its attention to farm animals. The veterinarian's fear of the bicycle was now a forgotten memory. At this time, the veterinary profession made a major shift. It was no longer identified with a single species, the horse.



Over 4000 years, the veterinary profession had concentrated its efforts around the horse, all the veterinary texts, college training and the public association was with the “horse doctor.” In less than 100 years, this great association with the Horse and a caring profession has now been opened to a far reaching profession of care and concern for all animals.



With this development, the state universities began to develop their own veterinary colleges. These new schools would ultimately doom the profit-financed schools and move the center of veterinary education from the private institutions in large cities to state colleges and universities, located in smaller cities.

They were as follows:

Cornell University in 1868

New York City in 1875

Iowa State College in 1879


(Iowa State College became the first school to establish a distinct veterinary college with Land-Grant money.)

University of Pennsylvania in 1883 and in 1885, opened a veterinary hospital.

(Since horses were the primary patients, a blacksmith shop was attached to the hospital.)

Ohio State University in 1885

Washington State University in 1895



The Morrill Land-Grant Agricultural Act was passed in July 2, 1862, which enhanced government funding of certain schools.

Iowa State College became the first school to establish a distinct veterinary college with Land-Grant money in 1879.

## Kansas State College in 1905

(In 1918, Kansas City Veterinary College (1891) in Missouri was absorbed by KSC and was believed to be by many, the greatest private veterinary school in the nation)

## Auburn University in 1906

## Michigan State Veterinary College in 1910

(Michigan State College was established in 1855)

## Texas A&M College in 1916

A veterinary college was established in connection with Minnesota College Hospital in 1881 (University of Minnesota Veterinary School began as a Division of Veterinary Medicine in the College of Agriculture in 1916)



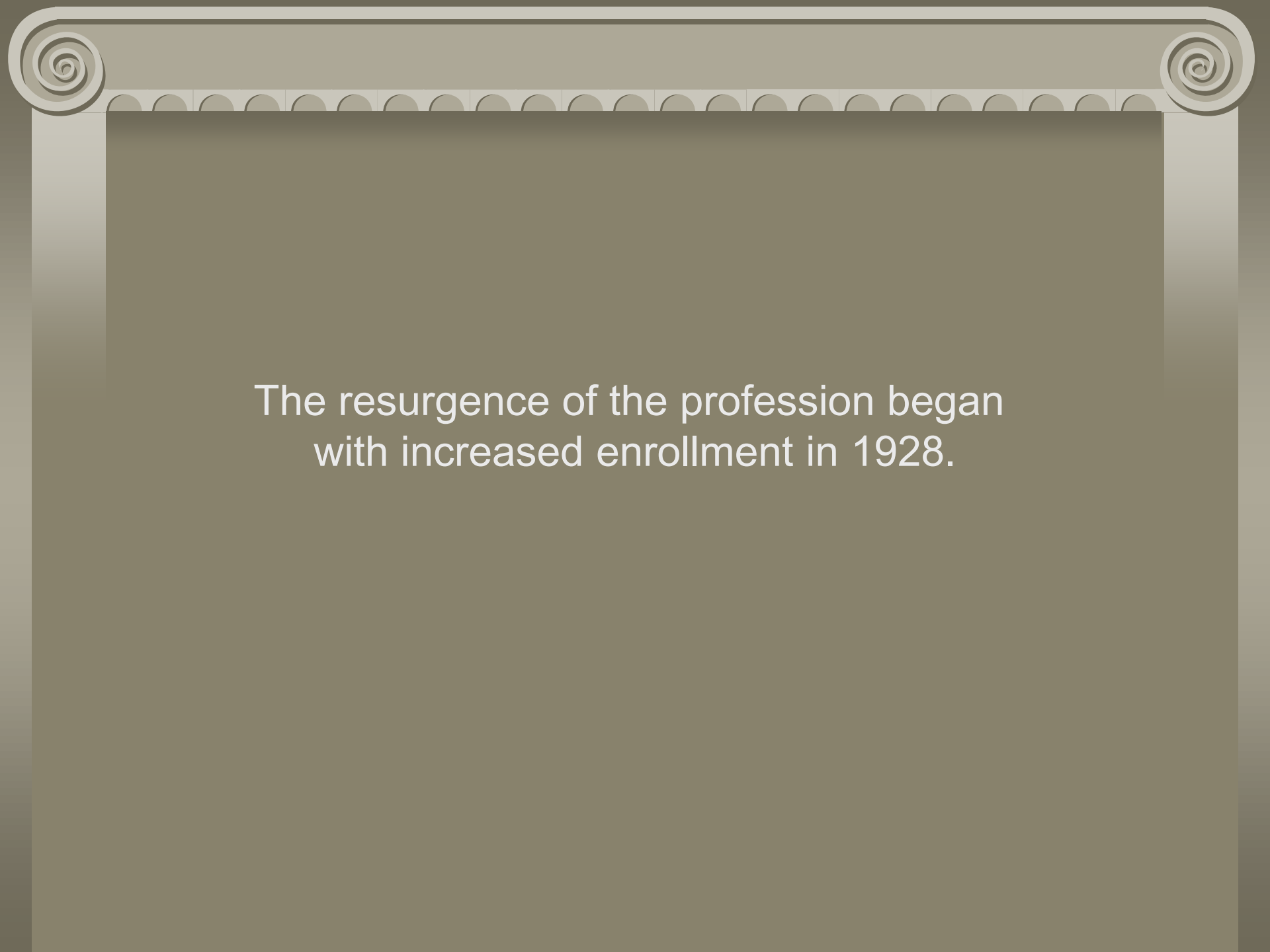
## Farriery had developed into a scientific study

Between 1895 and 1905, legally-organized schools of farriery, devoted to the horse, were located in Philadelphia, New York City, Detroit, St. Louis, Indiana and at United States Army posts. These schools usually were operated with a regular veterinary school.

Resource: A Short History of Veterinary Medicine in America, B. W. Bierer, MSU Press 1955, page 95.

MSU had a farrier school, as part of the Short Course Program (now Agricultural Technology) and it was called the MSU Farrier Science Program, from the 1940s to 1962. This school was developed by John “Jack” MacAllan and the last three years, the program was taught by Norm Oswald, a former student of MacAllan.

Resource: Personal correspondence from John Shelle, PhD, MSU


A decorative frame with a scrollwork border at the top and two columns on the sides. The background is a solid, muted green color.

The resurgence of the profession began  
with increased enrollment in 1928.

# University of Minnesota Veterinary Hospital



*The original University of Minnesota Veterinary Hospital on the St. Paul Campus near the site of "Old Anatomy" as it looked circa 1900.*



A veterinary medical school was established in connection with Minnesota College Hospital in 1881. The University of Minnesota Veterinary Medical School began as a Division of Veterinary Medicine in the College of Agriculture in 1916. In 1947, the Minnesota State Legislature passed a bill to establish the School of Veterinary Medicine. In 1957, it became the College of Veterinary Medicine.

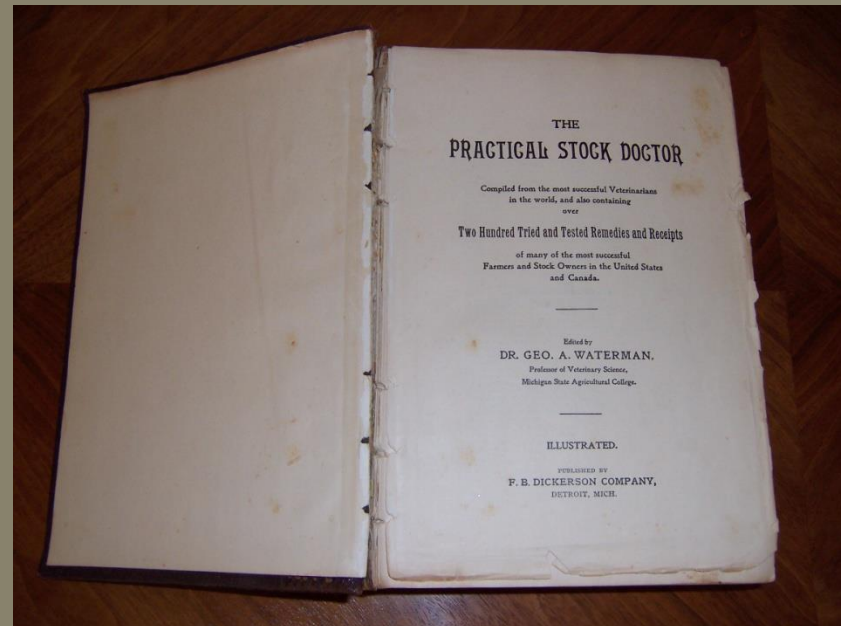
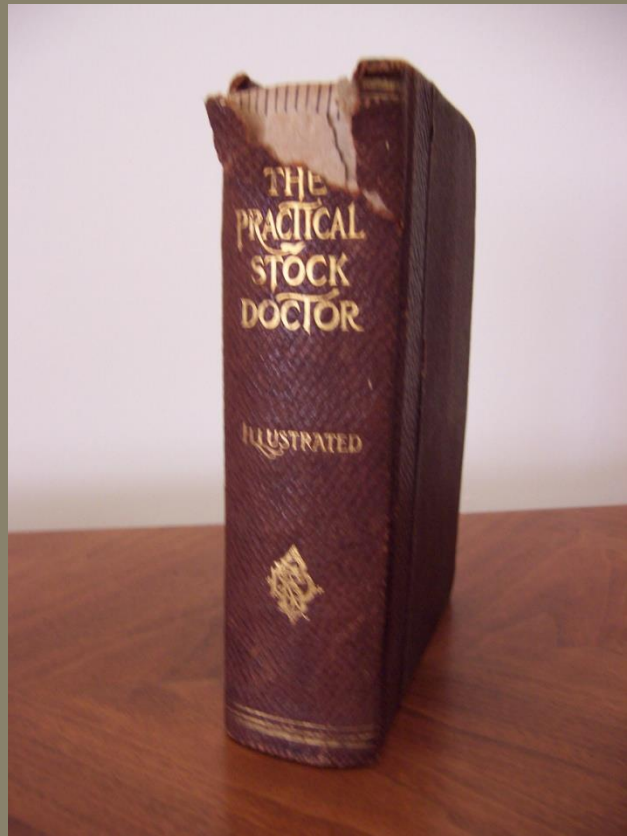
Photo reprinted by permission of the Minnesota Veterinary Medical Association, from the MVMA Newsletter May/June 1986.

Two very popular illustrated textbooks  
were available between 1868 and 1904

- ◆ Dadd's Theory and Practice of Veterinary Medicine and Surgery – 1868  
by George Dadd, Veterinary Surgeon
- ◆ The Practical Stock Doctor – 1904  
by Dr. George A. Waterman, Professor of Veterinary Science, Michigan State College


# The Practical Stock Doctor – 1904

by Dr. George A. Waterman, Professor of Veterinary  
Science, Michigan State College



The Practical Stock Doctor's author  
offered with the purchased of this book,  
a certificate for a free consultation



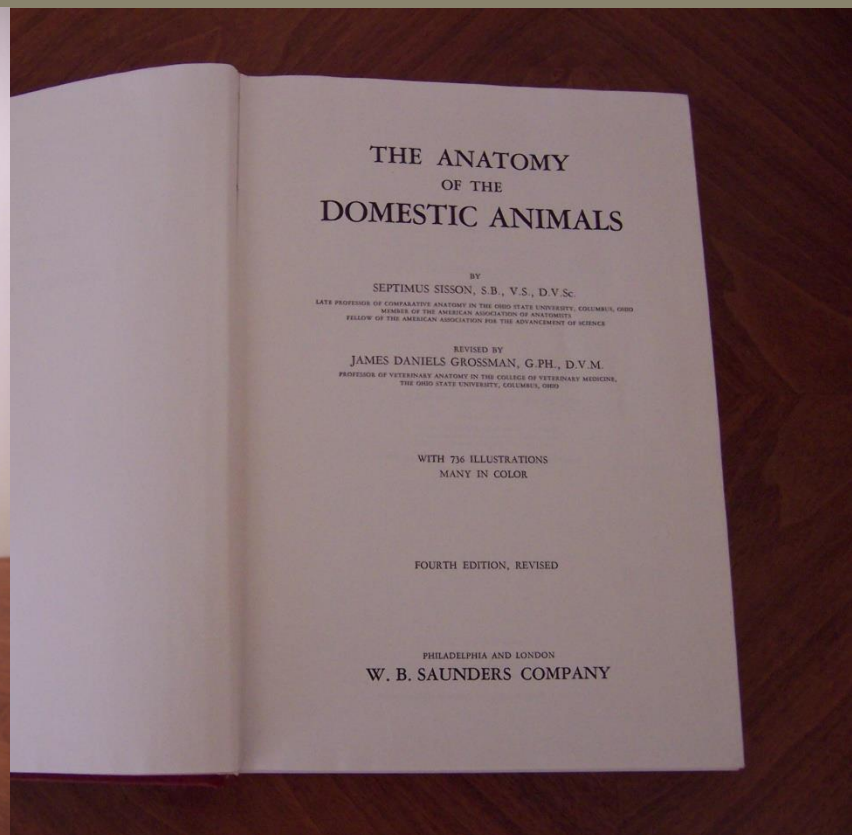
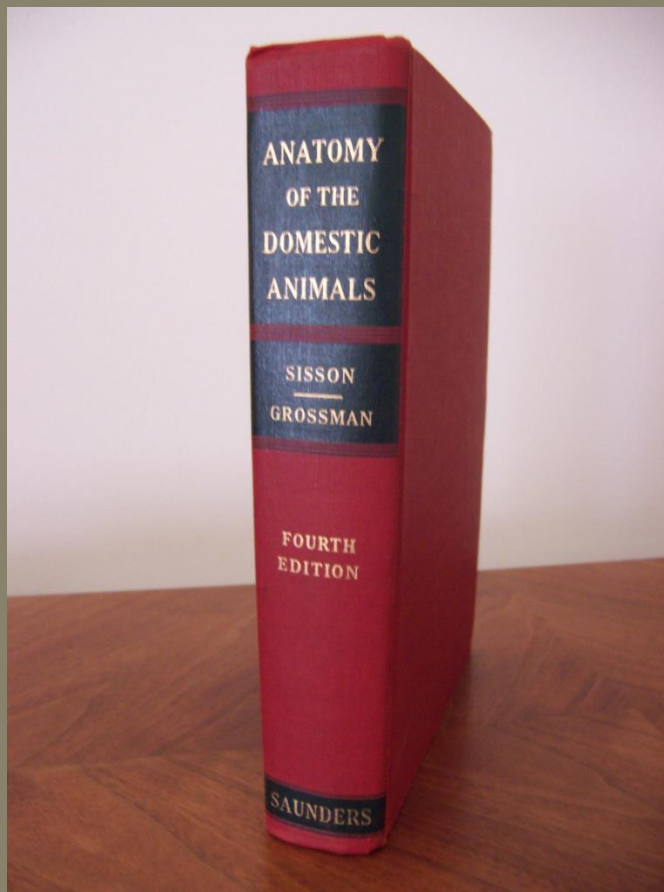


In 1910, the classic anatomy veterinary text was first published, *The Anatomy of the Domestic Animals* by Septimus Sisson, S.B. V.S., D.V.Sc. This text was the “bridge” that made the transition from the study of the horse to the study of domestic animals so smoothly and no one was aware.



# The Anatomy of the Domestic Animals

by Septimus Sisson, S.B. V.S., D.V.Sc.



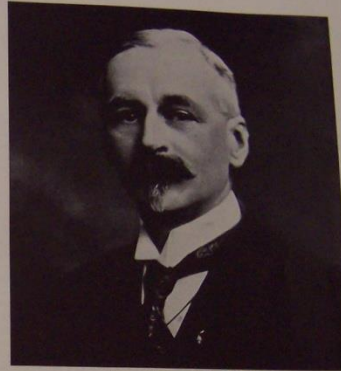


This text was first printed in 1910 and was the standard anatomy textbook till the late 1970's.

The basis of the text used the horse, any differences in the anatomy of the Ox (cow), sheep, pig or the dog, were explained.

The first sections described the horse in complete detail. This book was "the standard gross anatomy" text, even into three quarters of the twentieth century and it centered around the horse.

# Dr. Septimus Sisson



Septimus Sisson, D.V.Sc., S.B., V.S.

Septimus Sisson, Professor of Comparative Anatomy in the College of Veterinary Medicine, The Ohio State University, son of George and Mary (Arnold) Sisson, was born October 2, 1865, at Gateshead, England. He came to America in 1882. Dr. Sisson received the certificate of V.S. in 1891 from the Ontario Veterinary College, Toronto, Canada; the degree S.B. in 1896 from the University of Chicago; and in 1921 the University of Toronto conferred upon him the degree of D.V.Sc. During 1905 and 1906 he was a student in Anatomy in Berlin and Zurich.

He was united in marriage October 5, 1892, to Katherine Odham of Manhattan, Kansas, who resides at Long Beach, California.

Dr. Sisson was demonstrator of Anatomy in the Ontario Veterinary College, 1891 to 1899; Associate Professor of Veterinary Science and Zoology, Kansas State Agricultural College, 1899, and Professor of Zoology, 1900. In 1901 he came to The Ohio State University as Associate Professor of Veterinary Medicine, which title he held until 1903, when he was made Professor of Comparative Anatomy.


His published work consists of a translation: *The Horse: A Pictorial Guide to its Anatomy*, from the *Anatomie der Tiere für Künstler* by Ellenberger-Baum; *Text-book of Veterinary Anatomy*, *The Anatomy of the Domestic Animals*, *Report of the Committee on Revision of Veterinary Anatomical Nomenclature*, a *Veterinary Dissection Guide*, and many articles to the technical journals. The thoroughness and accuracy of his works place them above all other works in English.

He was the originator of the intravascular injection of formalin or other hardening fluid whereby the natural form and topography of the soft organs of the chief domestic animals could be determined, using it first at Kansas State Agricultural College, 1899, on small animals and at The Ohio State University, 1901, on large animals.

He was a fellow of the American Association for the Advancement of Science; a member of the American Association of Anatomists; the American Veterinary Medical Association; the American Association of University Professors; member and past-president of the Ohio State Veterinary Medical Association; and the Society of Sigma Xi. He was a member of Kiwanis, Lodge of F. and A.M., Columbus, Ohio. He was commissioned Lieutenant Colonel in the Veterinary Reserve Corps of the U.S. Army in January, 1924.

Dr. Sisson was modest and retiring, but held the highest ideals for his chosen profession. He read extensively, liked travel, enjoyed only the best music, and was an expert photographer. Dr. Sisson was a good teacher and a most enthusiastic worker in anatomical research. His well-trained analytical mind and unusual skill in technical manipulation enabled him to delve into the unknown with a thoroughness and accuracy attained by few research workers in the field of anatomy.

In Dr. Sisson's death at Berkeley, California, July 24, 1924, the Veterinary Profession, the University and the nation suffered a profound loss.



Born in Gateshead, England and came to America in 1882. Received his V.S. degree from Ontario Veterinary College Toronto, Canada in 1891; his S.B. degree from the University of Chicago in 1898 and in 1921 he received his D.V. Sc. Degree from the University of Toronto.

He died in Berkeley, CA on July 24, 1924, at the age of 59.



In 1898, the American Veterinary Medical Association was formed, it is the largest veterinary organization in the world.

The AVMA has an active membership today of 54,246 veterinarians in private clinical practice in the United States. There are 2,646 veterinarians that are exclusive equine practitioners in the U.S., as of 2006.

# World War One


Horses were heavily used in World War One. Horses were involved in the war's first military conflict involving Great Britain - a cavalry attack near Mons in August 1914. Horses were primarily to be used as a form of transport during the war.




Horses pulling artillery when the war broke out in Western Europe in August 1914. Both Britain and Germany had a cavalry force, each numbered about 100,000 men.

In August 1914, no one could have contemplated the horrors of trench warfare – hence the cavalry regiments reigned supreme. In fact, in Great Britain the cavalry regiments would have been seen as the senior regiments in the British Army, along with the Guards regiments, and many senior army positions were held by cavalry officers. However, the cavalry charge seen near **Mons** was practically the last seen in the war.






Trench warfare made such charges not only impractical but impossible. A cavalry charge was essentially from a bygone military era and machine guns, trench complexes and barbed wire made such charges all but impossible. However, some cavalry charges did occur despite the obvious reasons as to why they should not.



In March 1918, the British launched a cavalry charge at the Germans. By the Spring of 1918, the war had become more fluid, but despite this, out of 150 horses used in the charge only 4 survived. The rest were cut down by German machine gunfire. However, though a cavalry charge was no longer a viable military tactic, horses were still invaluable as a way of transporting materials to the front.



Germans advancing on horseback to the Marne, such was the use of horses on the Western Front. Over 8 million died on all sides fighting in this war.




Two and a half million horses were treated in veterinary hospitals, with about two million being sufficiently cured that they could return to duty.

That would be four out of five horses wounded returned to the front. That is remarkable percentage, in that day.



## World War I – Portable Equine Surgical Table

An injured horse being secured to “The Simplicity Equine” portable operating table in its vertically oriented position.



Military vehicles, as with any mechanized vehicles of the time, were relatively new inventions and prone to problems. Horses, along with mules, were reliable forms of transport, when compared to a truck, as these animals needed little upkeep.

World War One started in the summer of 1914, Italy joined the Allies in May 3, 1915


The Italian Army veterinary corps started with 219 veterinarians and by at the end of the war they totaled 2819.

On April 22, 1915, Germany started using chlorine gas and a new type of warfare began. The Allied defenders had no protective equipment. Within a few months, equipment was obtained for the soldiers, including the efforts of the veterinarians in the field in developing gas masks to protect the horses on the war front.

## The Army Veterinary Corp

Since the signing of the Declaration of Independence until the passage of the National Defense Act of June 3, 1916, this act profoundly modified that service. The Act of the Congress, in 1792, provided for mounted troops and continued chronologically with Acts of Congress, War Department orders, department and regimental regulations. This affected the mounted service and the veterinarians of the army down to this eventful day in 1916.






The Army Veterinary Corp, in 1916 became a branch of the Army Medical Department and commissioned rank was granted to the army veterinarians. They had been under the Army Quartermaster Department and regiments since 1792.

## Glanders

In 1902, John Rutherford succeeded McEachran as chief veterinary inspector; in 1904, he was appointed veterinary director general, at the head of the newly formed Health of Animals Branch of the Department of Agriculture. Early in the century, Rutherford was instrumental in establishing the policies and procedures that would lead to the eventual eradication of glanders.



Through these policies and procedures in the control of Glanders that were developed by an alert veterinary profession, they had practically eliminated that dread disease from this country by 1913.


This is but one example of what America's competent veterinary profession means to human health, over and above its service in safeguarding the health of animals.

## Glanders Epidemic – Russia, 1925

Appalling as the thought must seem to Americans, so helpless was Russia to cope with the disease know as Glanders. After the revolution had “liquidated” its veterinary profession, some major policies were enacted. In 1925, the Soviet Red Gazette announced that “for humanitarian and sanitary reasons” the authorities had shot 117 children who had contracted the disease from horses afflicted with it.

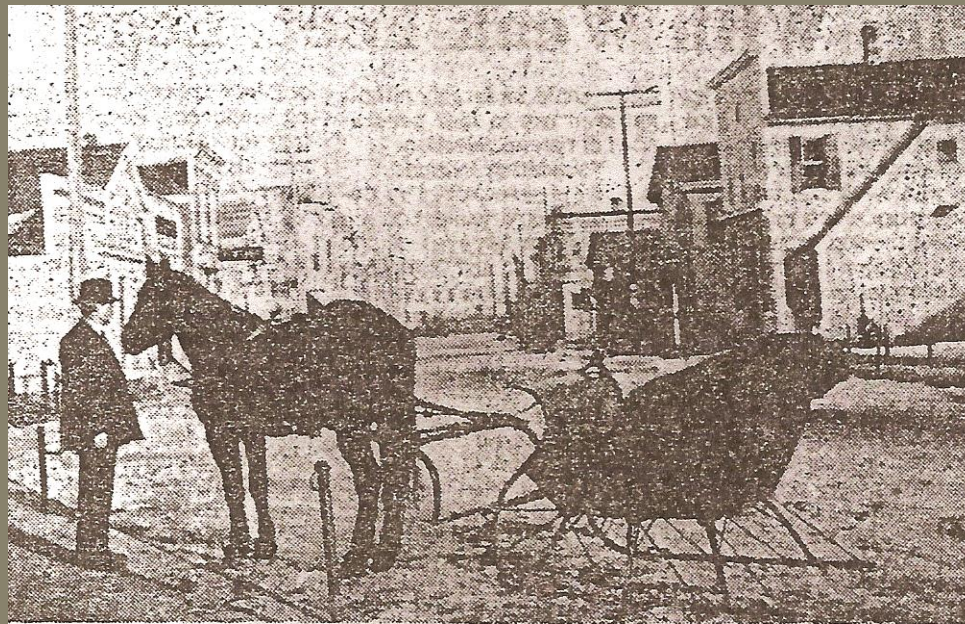
## Some Historic Facts About Glanders

- ◆ In the 3<sup>rd</sup> Century BC, Aristotle described Glanders in his writings.
- ◆ In 1664, the contagious nature was recognized.
- ◆ In 1900, control programs were implemented in the United States.
- ◆ In 1917, the Germans again were accused of spreading glanders to 4,500 donkeys on the French front, and of spreading this plague on the Russian front in 1915 and 1916.
- ◆ Large number of human cases in Russia occurred during and after World War I.
- ◆ In 1934, Glanders was eliminated from animals in the U.S.



Private veterinary practice in  
the early 1900's is pictured  
in the following photos:

Dr. O.J. Matthias has his horse and cutter ready to go in front of the Franklin House on Pine Street in Sheboygan Falls in 1905 and in a buggy in the summer, until 1911 when he bought a new Hopmobile.




**DR. O.J. MATTHIAS** has his horse and cutter ready to go in front of the Franklin House on Pine Street in Sheboygan Falls in 1905.

Dr. David Roberts,  
Waukesha, WI - 1900



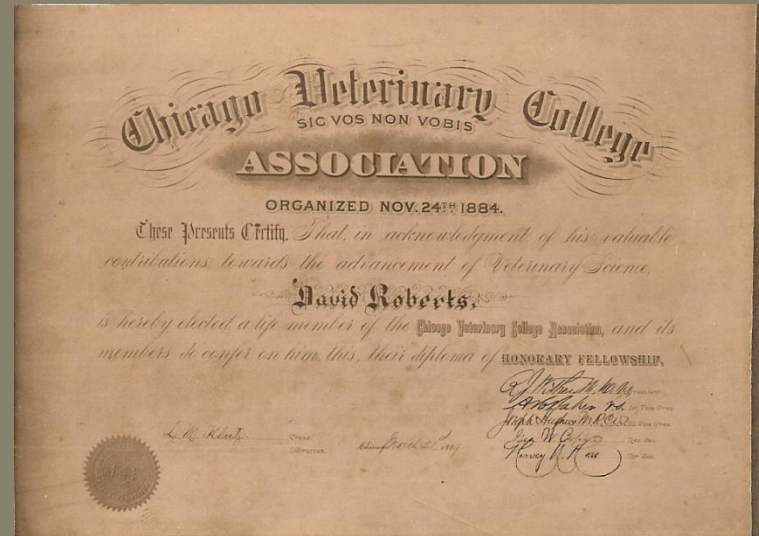
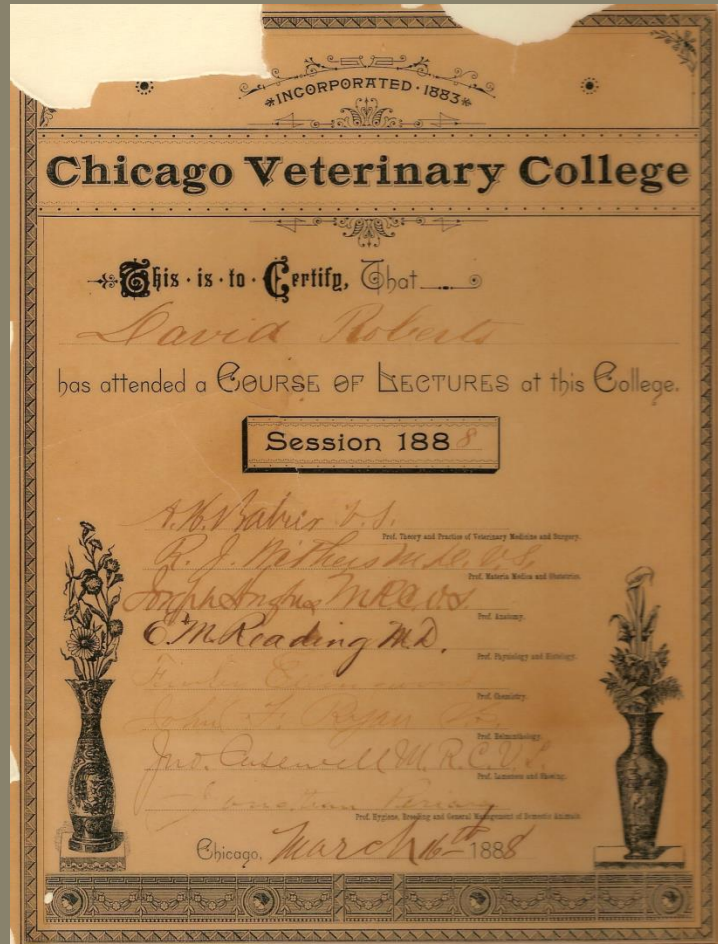
Dr. David Roberts and His Arabian Team, 1900.





Dr. David Roberts was well known in the state of Wisconsin. He founded the Dr. David Roberts Veterinary Co. in Waukesha. His father, John M. Roberts was a well known stockman and farrier. Dr. David Roberts was the Wisconsin State Veterinarian from 1906-07-08. His patent medicines were seen on most Midwest dairy farms, from 1903 till the late 1950s.

Dr. David Roberts graduated from  
the Chicago Veterinary College in 1889

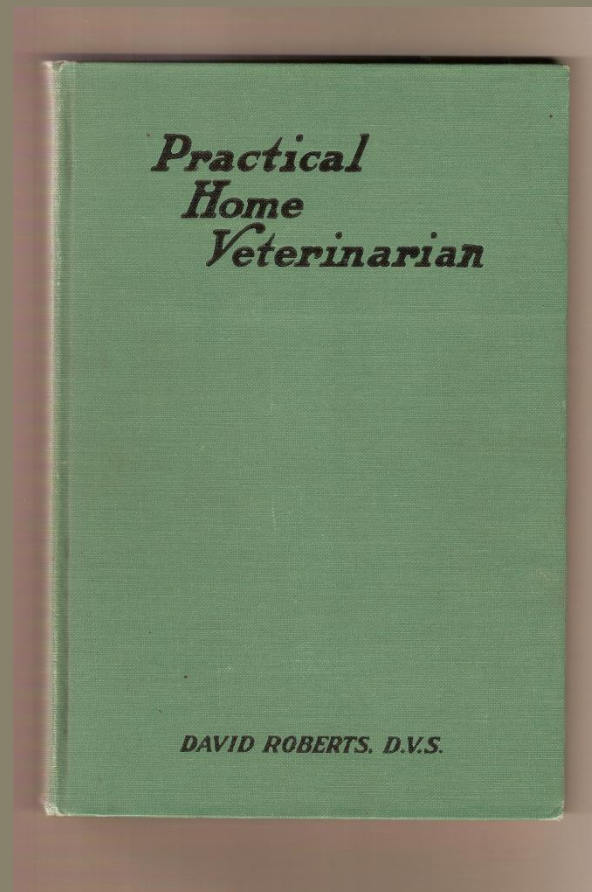




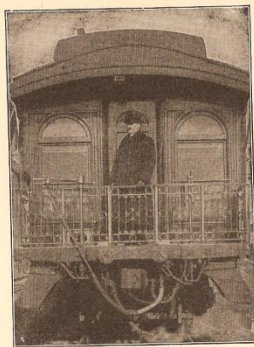
The veterinary degree was earned in two years, at that time. Two sessions of four months each.

The Chicago Veterinary College organized an association for their graduates, on November 24, 1884. In 1863, just 21 years before this, the United States Veterinary Medical Association was formed and then in 1885, became a national veterinary organization known as the American Veterinary Medical Association, presenting twenty states.

Dr. David Roberts'  
popular veterinary book,  
first published in 1910, which sold for \$1.00



# Title page of the Practical Home Veterinarian



Dr. David Roberts Starting Out on a Special Dairy Train.



Dr. David Roberts Addressing Live Stock Breeders on Diseases of Cattle from Special Dairy Train.

## Dr. David Roberts' Practical Home Veterinarian

### A BOOK CONTAINING

much valuable information on the care and treatment of Cattle, Horses, Swine, Sheep and Poultry, and a review in alphabetical order of the diseases to which they are subject, together with the causes and symptoms, and the most efficient medicines for each. Also illustrations of a model dairy barn, different breeds of cattle and horses, and modern methods of administering treatment.

Written and Compiled by  
DAVID ROBERTS, D. V. S.,  
WAUKESHA, WIS.

# Photo of Dr. David Roberts and the first page of the General Index of the Practical Home Veterinarian



**Dr. David Roberts**

Former State Veterinarian of Wisconsin  
 Author of "Practical Home Veterinarian"  
 "Cattle, Breeds and Origin"

Official Veterinarian  
 "National Dairy Show"—1909, 1910,  
 1911, 1912

Official Veterinarian  
 "International Dairy Show"—  
 1911, 1912

Official Veterinarian  
 "Iowa Dairy Convention and Cat-  
 tle Congress"—1910, 1912.

Official Veterinarian  
 "American Royal Livestock Show"  
 —1908.

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# Four selected veterinary products used to treat horses.

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DR. DAVID ROBERTS.

## White Liniment

Price 50 Cents

For Man or Beast. An Old,  
Tried and True Liniment  
That Never Fails.



Gives Quick Relief in Cases  
of Rheumatism. Once  
Used, Always Used.

For All Sprains, Bruises,  
Sore Throat, Lung  
Fever, Etc., Etc.

This Liniment is Excellent  
for Garget, Caked or In-  
flamed Udder in  
Cows.

Family Use.—Chronic and Inflammatory Rheumatism.

Strained Ligaments and Joints, Contracted Cords, Muscular Soreness, Sciatica,  
Lumbago, Pleurisy, Side Ache, Lamé Back, Sore Throat and Chest, and all Neuralgia  
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Veterinary Use.—Sweeney, Sprained Tendons.

Muscular and Ligamentary Lameness, Shoulder, Stifle and Hip Joint Lameness,  
Swollen Glands, Sore Throat with Distemper or Influenza, and Congestion or Inflam-  
mation of the Lungs.

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## Absorbent

Price \$1.00

See Cattle and Horse Section  
for additional information.



The Best Remedy Known for  
Lump Jaw and for Remov-  
ing any Unnatural En-  
largement on any  
Part of the Body  
or Limbs of  
Live Stock.

For External Use Only.

Dr. David Roberts' ABSORBENT is especially prepared to remove by absorbing,  
any unnatural ailment or enlargement of any part of the body or limbs, such as:

LUMP JAW,  
SPLINTS, CURBS,  
SIDEBONES, RINGBONE,  
THOROUGHPIN,  
BOG SPAVIN,  
CHAPPED HOCK,  
SHOEBOILS, WINDPUFFS,

CALLOUS COLLAR GALLS,  
POLL EVIL,  
FISTULA WITHERS,  
COLD ABSCESS,  
ENLARGED GLANDS, such as Goiters,  
Lump Jaw and Enlargements due to  
Kicks, Bruises, Cuts, Etc.

If the owner of an animal would stop and consider how much the appearance of  
it would be improved by the removal of a single blemish, he would undoubtedly have  
all blemishes removed, and in so doing greatly increase the value of the animal.

167

DR. DAVID ROBERTS

## Wartine

See Cattle  
and Horse  
Section for  
additional  
information



Price  
50 Cents

A harmless and painless treatment for removing warts of all kinds on livestock.

DR. DAVID ROBERTS

## Umbilicure

See Navel Disease  
in Colts and Calves;  
also Foaling and  
Calving



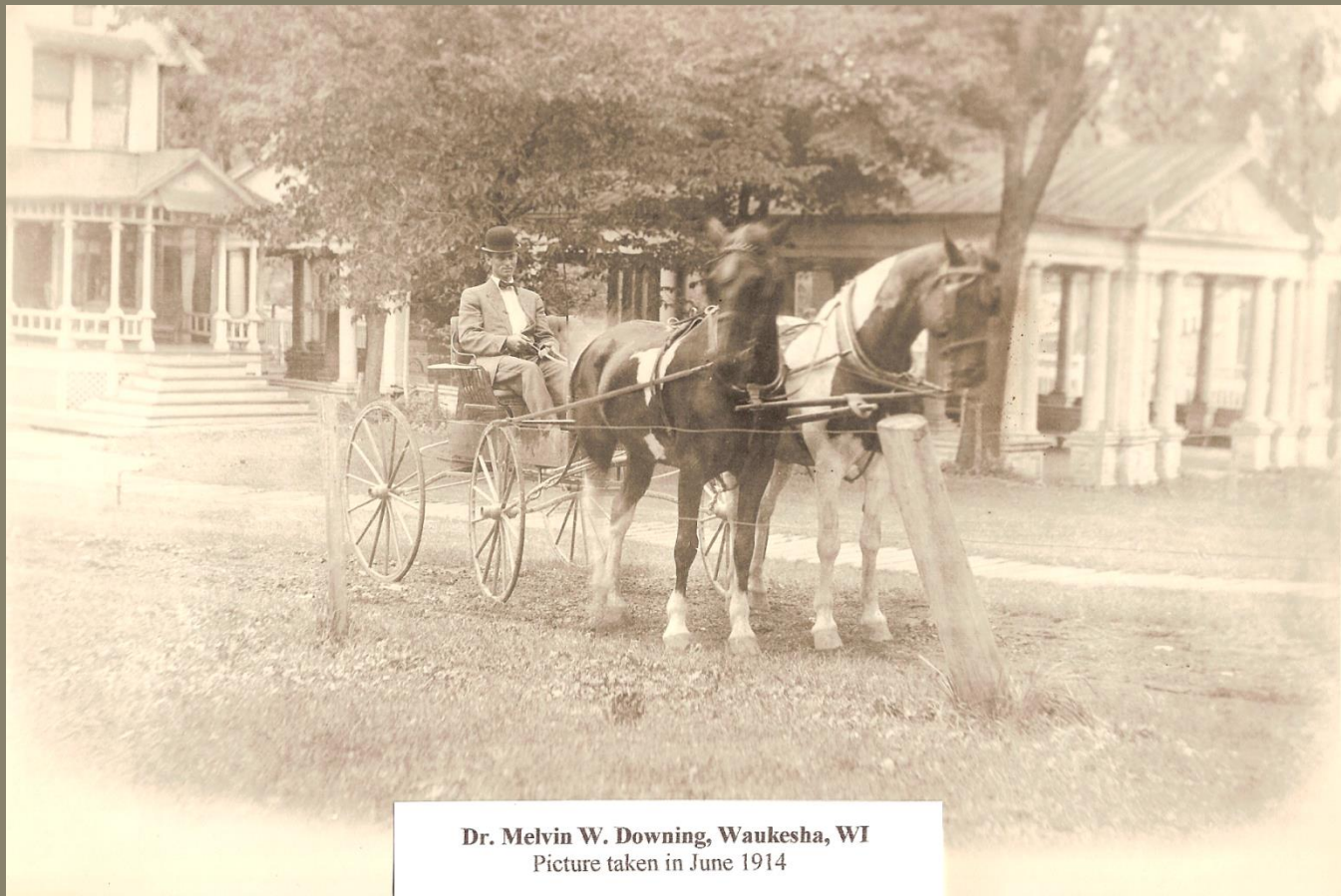
For Preventing  
Diseases  
Contracted  
through the  
Navel Cord of  
Calves, Colts,  
Mules and  
other Young  
Animals

The death of 75 per cent. of the young animals which die at birth may be attributed  
to diseases contracted through the navel cord, such as heat, swelling, lameness and  
gathering in any joints of the body, usually that of the ankle, hock, knee or stifle, which  
gathers, breaks and discharges a large amount of pus. Death soon follows unless prop-  
erly treated; for this reason it is necessary and very important to not only examine, but  
to treat the navel cord at birth to prevent the death of the young animal.

### NOTICE.

All apartments where an animal is placed to bring forth its young should be  
thoroughly cleaned, bedded, ventilated and disinfected. An attendant should be present  
and the navel cord of all colts and calves should be cut six inches long and tied with  
a string soaked in Umbilicure and then apply Umbilicure to navel cord as directed.  
In this manner many a young animal can be saved which would otherwise die without  
the cause being known to the owner.

Dr. Melvin W. Downing, Waukesha, WI  
with his buggy and team, in 1914.



**Dr. Melvin W. Downing, Waukesha, WI**  
Picture taken in June 1914



Dr. Melvin W. Downing, Waukesha, WI  
1916



Dr. Melvin W. Downing, Waukesha, WI  
Picture taken in May 1916

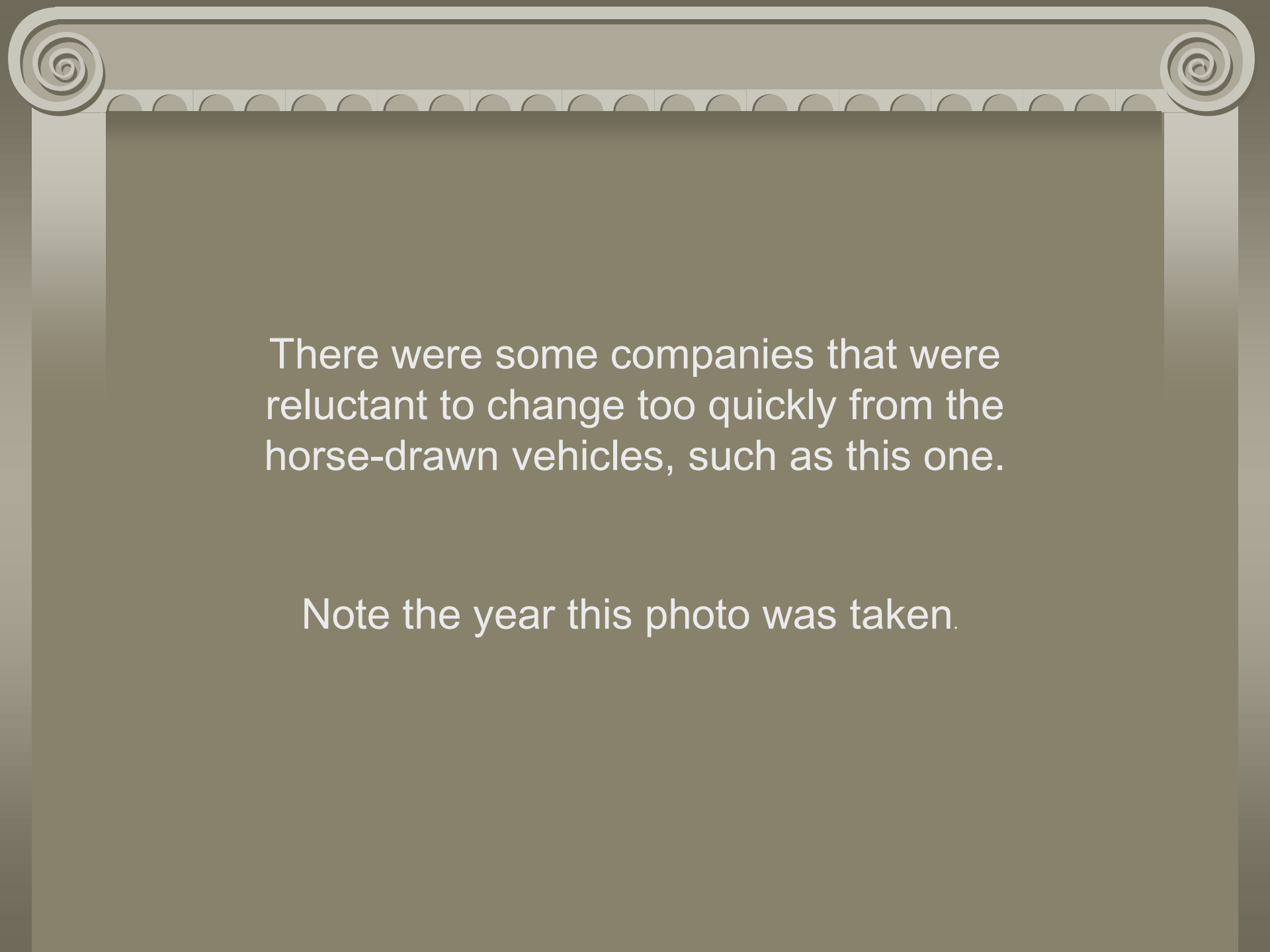
In January 1951, Dr. Melvin Downing was unanimously elected vice president of the Wisconsin Veterinary Medical Association as a result of his stand on a Bangs control program to meet an Illinois law passed in the spring of 1950. The law requires all milk entering the Chicago market after 1955 to come from Bangs free herds. He maintained that under the present Bangs control law the farmer can prepare for the new Chicago law voluntarily if he wishes. He actively promoted calfhood vaccination in the control of bovine brucellosis.

Waukesha Daily Freeman January 11, 1951

Dr. J.T. Jacobson, Winthrop, Minnesota in 1915,  
going on a call.



Photo reprinted by permission of the Minnesota Veterinary Medical Association,  
from the MVMA Newsletter May/June 1986.



There were some companies that were reluctant to change too quickly from the horse-drawn vehicles, such as this one.

Note the year this photo was taken.

## Modern Dairy's horse-drawn milk wagon in 1933, Sheboygan, WI



**NORBERT MUELLER**, an employee of Modern Dairy, stands in the doorway of his horse-drawn milk delivery wagon in June 1933. Photo courtesy of the Sheboygan County Historical Research Center

# The Era of the Automobile!

Henry Ford built the first Model T in 1908.

By 1915, the Ford Motor Company had built one million automobiles, selling for \$750 to \$850 each and in only one color – black.

The bicycle and the automobile became part of the American way of life by 1915.

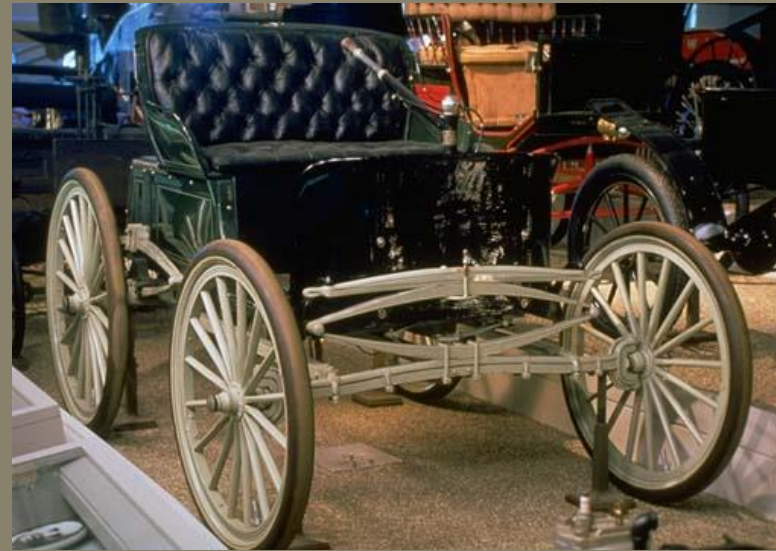
Yet, we all associate the Ford Motor Company as the first American automobile manufacturer, but it was The Duryea Motor Wagon Company of Springfield, Massachusetts. Founded by Charles Duryea and his brother Frank, they built a one-cylinder "Ladies Phaeton", first demonstrated on September 21, 1893 at Springfield, Massachusetts.

One can see why the veterinary profession thought this invention was just a fad, in the mid 1890's.

## The one-cylinder Duryea "Ladies Phaeton"



From Wikipedia, the free encyclopedia

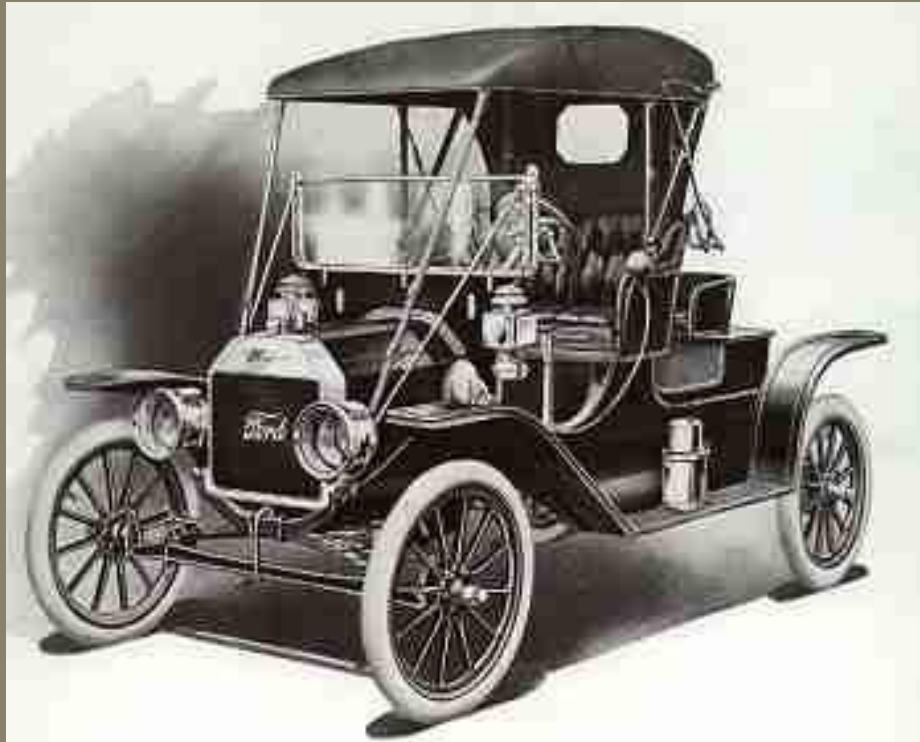



From The Showroom of Automotive History: 1896 Duryea




# Henry Ford's Model T -1908

The Model T Ford – by May of 1927,  
15 million were made.






In review, this wonderful profession has cared for the horse over the countless centuries since Hippocrates.




Agriculture in Wisconsin was changing. Wheat farming gradually declined in importance as more fertile wheat lands to the north and west were opened to cultivation. In the 1880's and 1890's, dairying gradually became the primary agricultural pursuit in the state. The agricultural school at the University developed into a national leader in the field of dairy science, supporting the transformation from wheat to dairy farming.



The then-current Wisconsin Governor, Wm Dempster Howard (1836-1918 – Founder of Howard's Dairyman Magazine for Fort Atkinson), could foresee a growing dairy industry for the Wisconsin farmer and encouraged this transition.


By 1915, Wisconsin had a growing number of dairy farms, requiring a milk market to handle this raw food product. Many small cheese factories were built throughout the state. Wisconsin became America's leader in milk production by 1920.



Then in the early 1930's, the veterinarian who wanted to specialize in small animals, started his practice in remodeled homes or converted barns, in our major cities. These veterinary clinics are still seen in many small towns and in our rural areas.

The first small animal veterinary hospital that was built in Wisconsin as a free standing, single purpose building, was built in Portage, Wisconsin in 1950, by Dr. Robert Curtis.

There have been long and trying times in veterinary history, but through the steadfast devotion to the horse this devotion has brought the veterinary profession into the 20th Century. Yet, in a time that many were still holding on to the belief, as Dr. Sisson did, that the Horse was still the cornerstone of our profession. Looking back, he may be right, as everyone in the world today remembers who Barbaro was. And who will never forget the gallant efforts of Dr. Dean Richardson and his surgical team at the University of Pennsylvania School of Veterinary Medicine's Widener Hospital at New Bolton Center, in 2007.



Let's return to the year, 1900, at the  
“Turn of the Century,” as we step back in time,  
about 100 years ago, a period when the veterinary  
profession was dealing with great change.

We will now visit a typical veterinary office of that era.  
This veterinary surgeon's office is located at the  
Galloway House & Village in Fond du Lac, WI.

## Veterinary Surgeon's Office - 1900's





The following photos were taken at the Galloway House & Village in Fond du Lac, WI. The Veterinary Surgeon's office was supported by a \$1500 grant from the Wisconsin Veterinary Medical Association (WVMA) in 1977. It is one of seven in the United States and is one of thirty-seven in the world. A free standing building, a 14 by 27-foot 1900-vintage building typical of those used for various purposes then and later was moved to this site. Two such structures were still in service as veterinary offices in northern Wisconsin in 1977.

# The Wisconsin Veterinary Medical Association plaque – dedicated in 1977



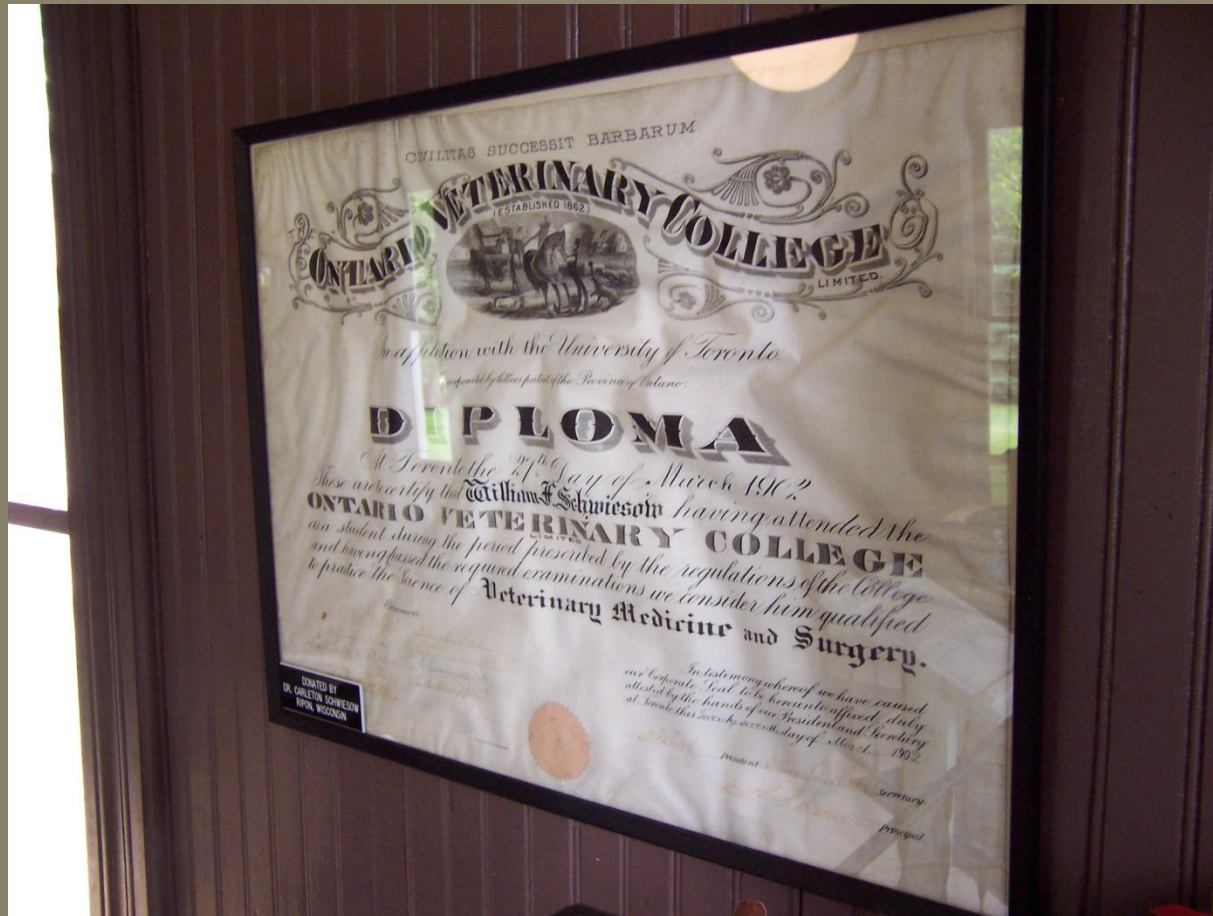
## Original Roll-top Desk



Veterinary office with roll-top desk,  
coal stove and library



One of the large diplomas displayed in the office



McKillip Veterinary  
College class picture  
of 1906

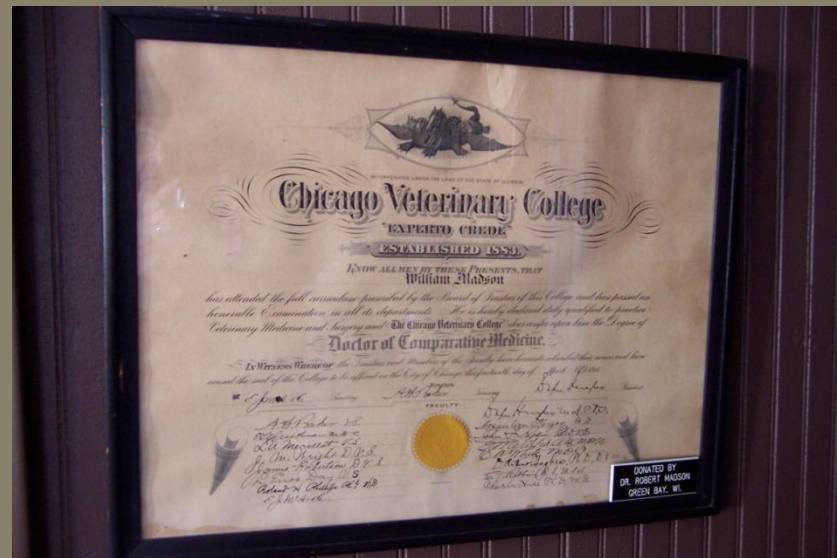
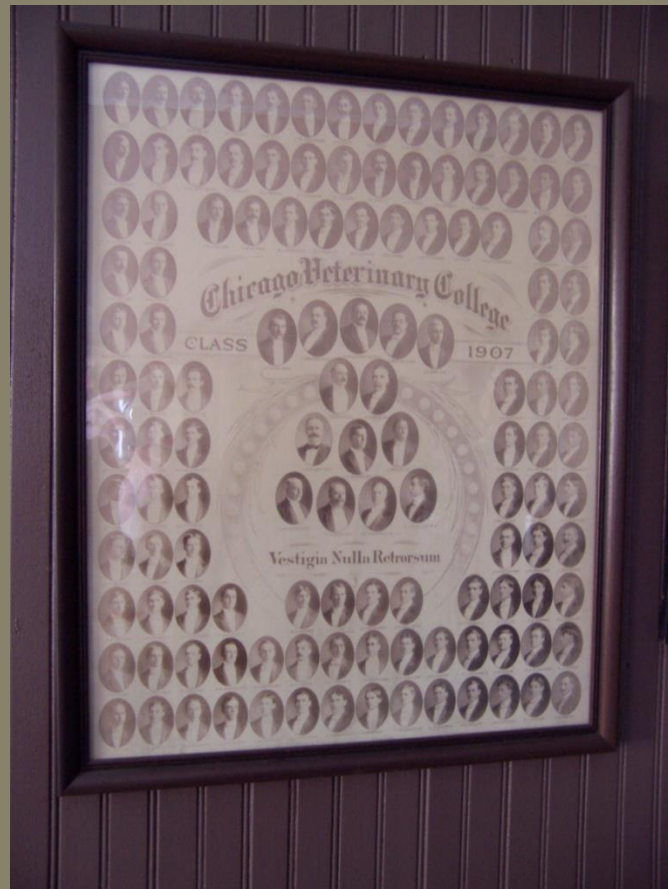
Mignon Nicholson was the  
first American woman to  
earn a veterinary degree,  
graduating from McKillip  
Veterinary College in 1903.



McKillip Veterinary College was considered one of the better private veterinary schools during that time. Was founded in 1892, then in 18 years they and had a total of 1,212 graduates by the time they closed its doors in 1920. This school was primarily the creation of Dr. Matthew McKillip, a successful practitioner and graduate of both medical and veterinary schools. The school was famous for its large clinical practice, which seemed that the private schools excelled in.

According to the AVMA records, Mignon Nicholson was the first American woman to earn a veterinary degree, graduating from McKillip Veterinary College in 1903.

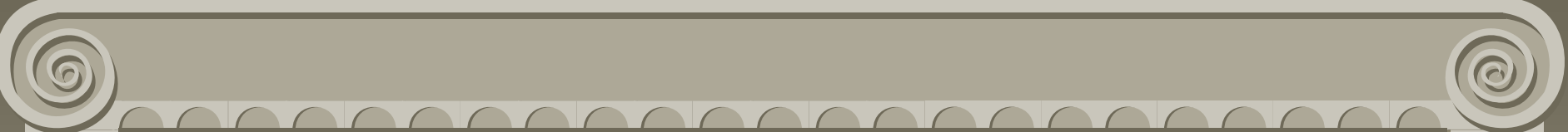
# Chicago Veterinary College class picture of 1907 and a large diploma





Two-man animal  
hair clipper






The Rural Electrification Act was signed by FDR on May 20, 1936. In 1935, only 10% of rural America had electricity. By 1950, 90% of American farms had electricity. This bill was to stimulate an economy still in the grip of the Great Depression.

# Obstetrical instruments





These large obstetrical instruments were referred as “bone crushers” and were used to remove a dead fetus from a mare or a cow.


Two people needed to operate this instrument, the veterinarian directed the blade of the instrument with his hand, while the other person cranked the blade closed.

## More obstetrical instruments



## Complete set of equine dental instruments

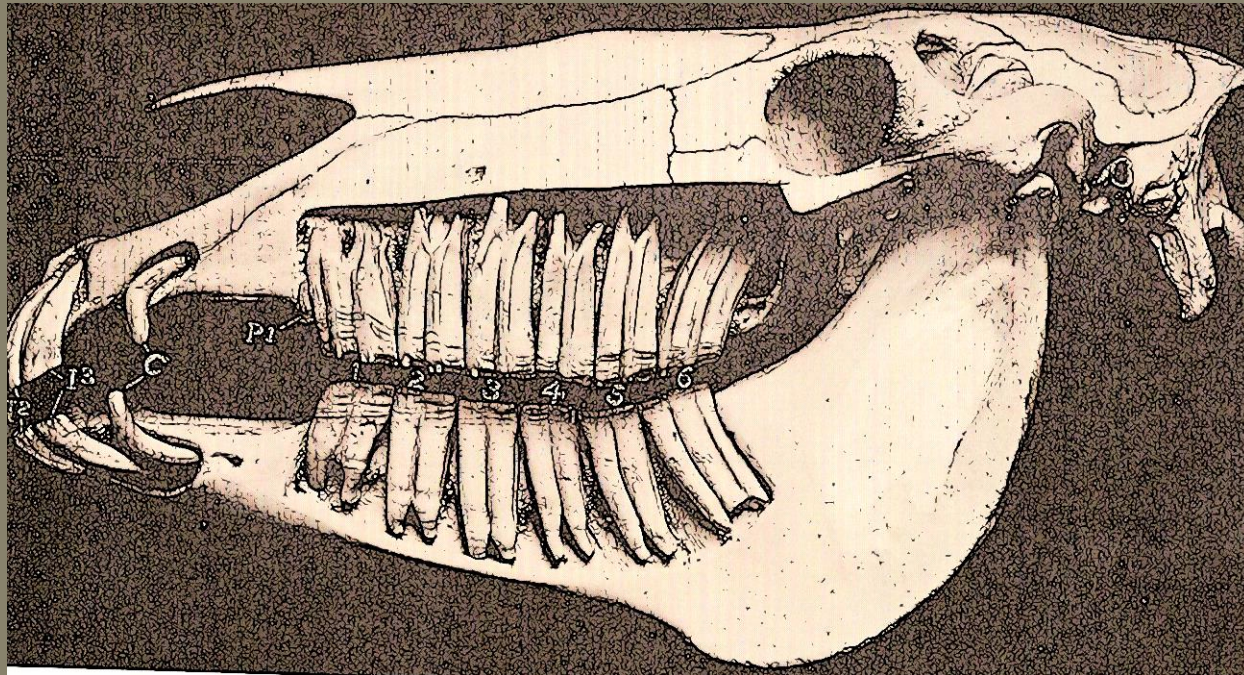




This complete set of equine dental instruments was donated by Mrs. W. R. Winner of Hixton, WI. Dr. W. R. Winner, graduated from The Chicago Veterinary College in 1917. He only practiced for six months and then worked for the state of Wisconsin and became an Assistant Chief of Animal Health, for many years, till 1956.

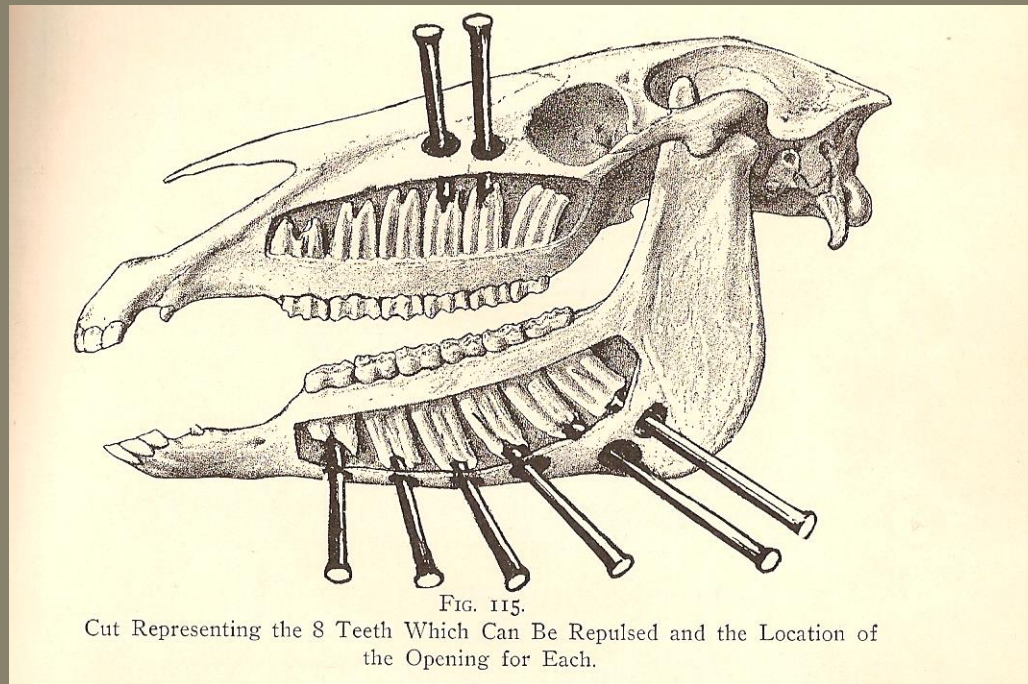
# Horse's skull

(exposing the roots of the teeth)





# Here is an example of treating broken molars in the horse



Reference: Merrillat, L.A., ANIMAL DENISTRY 1905

## Equine oral speculums



Fleam -  
a blood-letting  
instrument



# Three-bladed fleam

### PHLEBOTOMY

**SYNOPSIS.**—Phlebotomy, lancing venous blood, is a surgical operation, the object of which is to draw off a certain quantity of blood from the system, to remove the morbid elements contained therein, and to substitute a normal blood.

**INDICATIONS.**—Let us see whether the indications of the morbid elements which phlebotomy is intended to remove are such as to justify the operation. In the first place, we must consider the morbid elements which are to be removed. These are the morbid elements which are to be removed. These are the morbid elements which are to be removed.

been impossible. The persistence of its popularity may be partly due to the fact that it was frequently resorted to, and that the results were generally favorable. It was, however, a surgical operation, and as such, it was subject to the same risks as all other surgical operations. What will be said? Whether, however, it is a surgical operation, or whether it is a medical operation, it is a surgical operation. It is a surgical operation, and as such, it is subject to the same risks as all other surgical operations.

comes imminent. Here its action is part, is that of reducing the heart's labor by diminishing the volume of blood. The quantity of blood is reduced by the phlebotomy, and the heart's labor is thereby relieved. The heart being relieved, it is able to pump the blood more effectively, and the system is thereby benefited. The heart being benefited, it is able to pump the blood more effectively, and the system is thereby benefited.



Fig. 10—Fleam.

the effect is not being a period of the morbid elements which are to be removed. These are the morbid elements which are to be removed. These are the morbid elements which are to be removed.

**EQUIPMENT.**—Phlebotomy is performed with a three-bladed fleam. The fleam is a surgical instrument, the object of which is to draw off a certain quantity of blood from the system. It is a surgical instrument, and as such, it is subject to the same risks as all other surgical instruments.

field is well suited with various other operations. The morbid elements which are to be removed are such as to justify the operation. In the first place, we must consider the morbid elements which are to be removed.

**PHLEBOTOMY.**—Phlebotomy is a surgical operation, the object of which is to draw off a certain quantity of blood from the system. It is a surgical operation, and as such, it is subject to the same risks as all other surgical operations.

**Fifth Step.—Closing the Incision.**—The pin is passed through each side of the small incision and then through the skin of the patient's hand. The pin is passed through the skin of the patient's hand, and then through the skin of the patient's hand.

**ACCIDENTS AND REMEDIES.**—The danger here, however, need not be overlooked. It is not very likely to occur. It is not very likely to occur. It is not very likely to occur.

the finger tips of the left hand holding the hand) or pressure with the tip of the right finger, and the thumb tip above them the distance is a centimetre. The distance is a centimetre. The distance is a centimetre.

the morbid elements which are to be removed. These are the morbid elements which are to be removed. These are the morbid elements which are to be removed.

**MODIFICATIONS.**—The operation may be modified in various ways. It may be modified in various ways. It may be modified in various ways.

Veterinary instruments - From left to right:  
liquid dose syringe, balling gun, trocar & cannula,  
multiple size (three) balling gun



# A priceless syringe and leather case



## Vials of injectable hypodermic tablets



## Some of the more common hypodermic tablets





A very useful drug in both human  
and veterinary practices



A classic mortar and pestle, used to grind and mix medicinal powders.



Here are two Park-Davis products, that were used in human and veterinary practices in the nineteenth century.




The flower-stalks contain the active ingredients similar to those of the leaves, and are directed by the British Pharmacopoeia to be employed in the preparation of Syrup of Coltsfoot, which is recommended in the treatment of chronic bronchitis. In Paris, the Coltsfoot flowers used to be painted as a sign on the doorpost of an apothecary's shop. Blessed Thistle was used in the nineteenth century by herbalists and prescribed an infusion, or a tea, made from the plant tops as a treatment for fevers and for liver and respiratory ailments.

Three very popular powders that were used in making veterinary medications



Official United States Internal Revenue Stamp Permit  
PRACTITIONER DISPENSING OPIUM, COCA LEVES, ECT.  
This permit dated, June 19, 1934





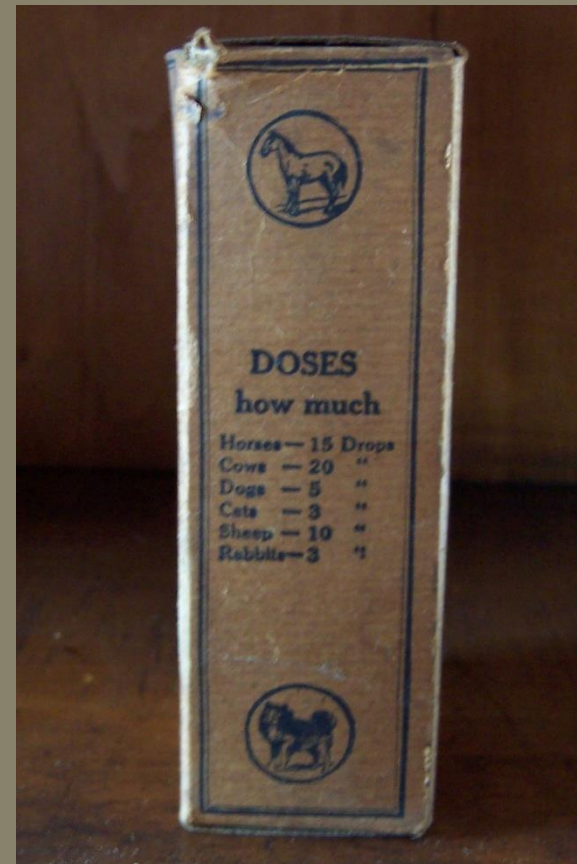
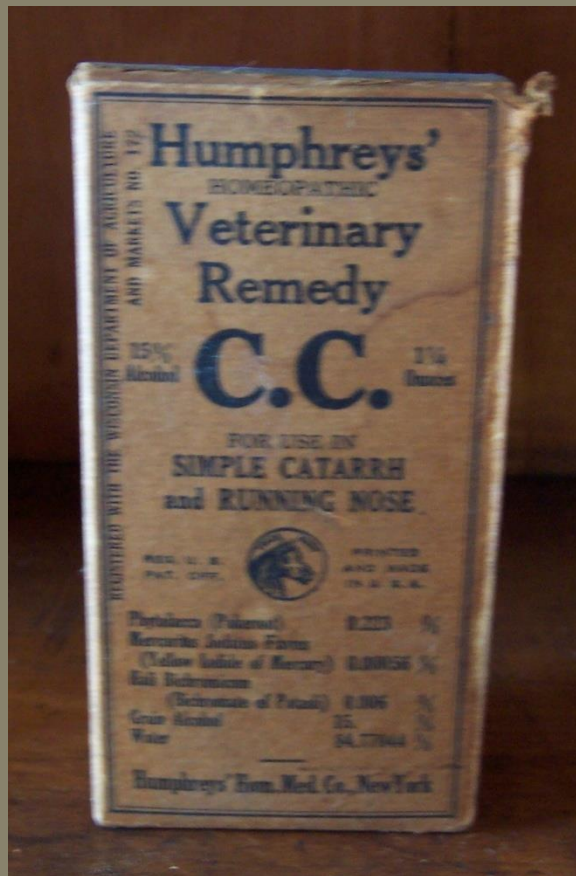
In 1906, marijuana, heroin and morphine were all available over the counter at the local corner drugstores. Government regulations controlled the use of opium. Opium was used mostly in treating colic in horses.

Here are two other forms of opium that was available by prescription

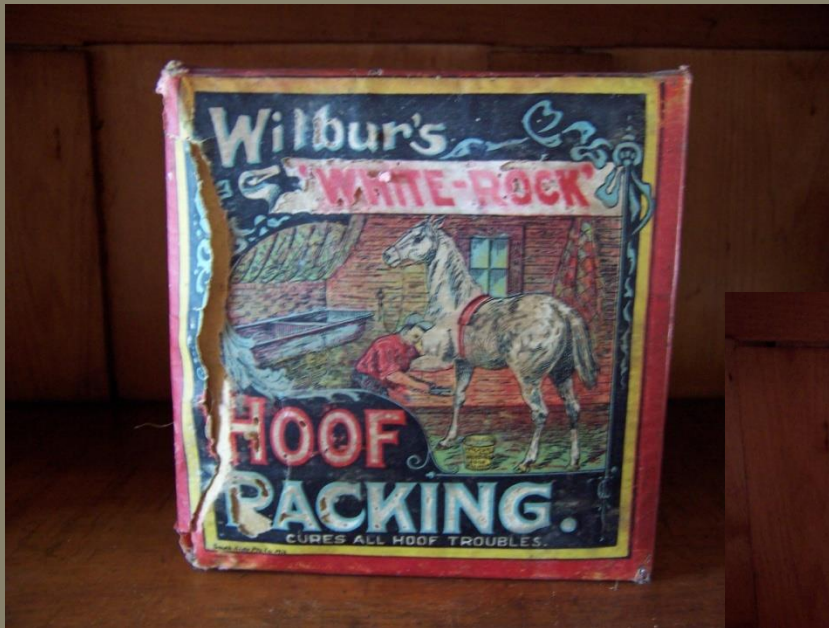




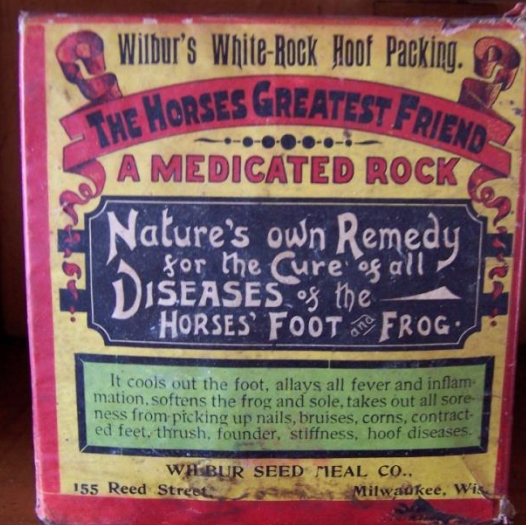
An example of a patent medicine that was sold in the early 1900's.



Hoof treatment - to cure all  
diseases of the horse's foot & frog



This is a four pound package



Various surgical instruments, needles,  
urinary catheters and a cast cutter.



## Four various forms of tracheal tubes



## Two types of hernia clamps



## Two forms of firing irons, for the treatment of various types of lameness



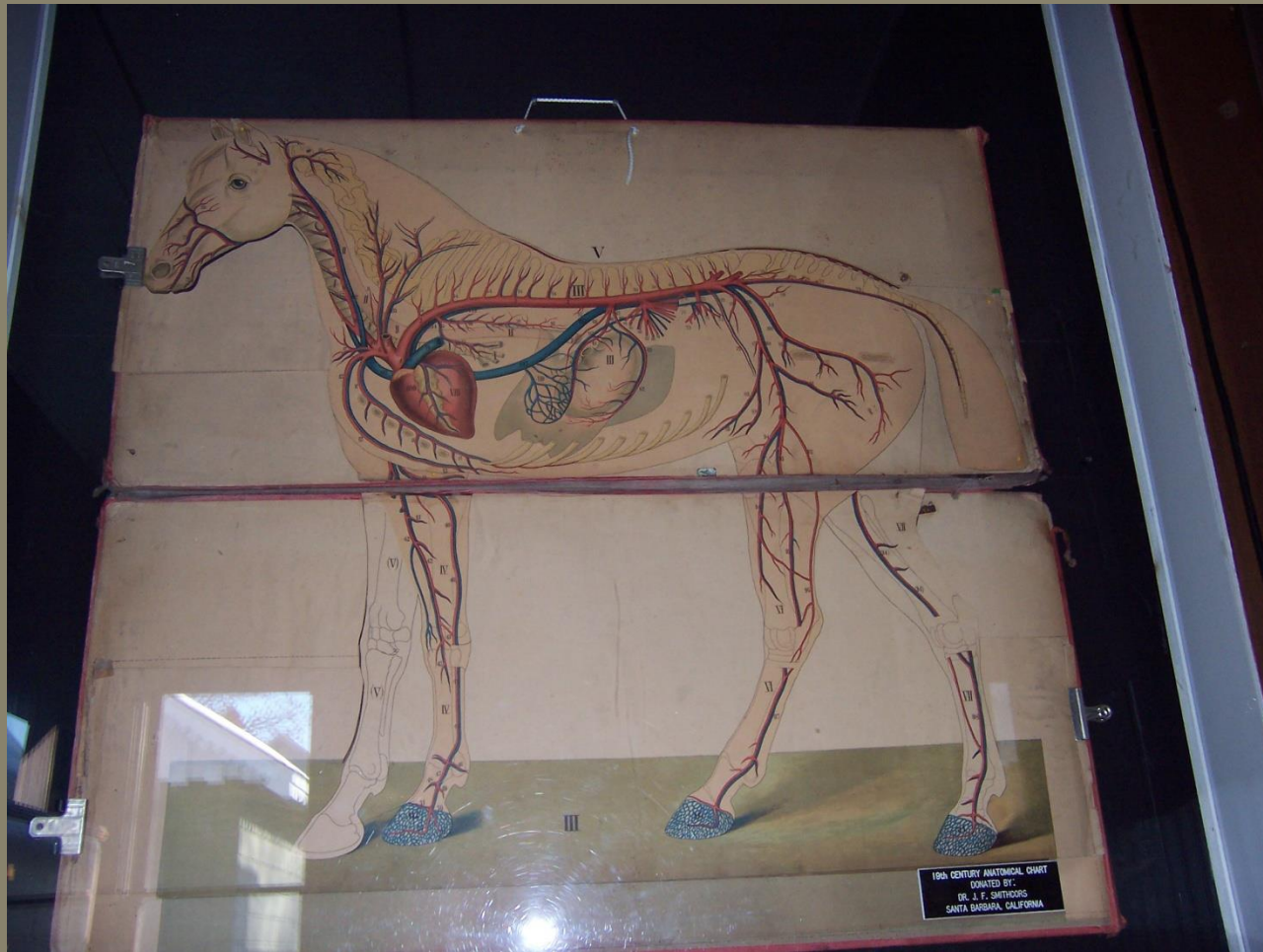
The ether firing iron was considered a modern invention over the forge fired firing iron in that day




## Equine tail-docking shears



# Equine anatomical chart








This anatomy chart of the horse was printed in Germany in 1895 and was donated to the Fond du Lac County Historical Society in 1976 by Dr. J. Fred Smithcors, Santa Barbara, CA.

Equine casting  
harness



An outstanding display of  
corrective horseshoes for race horses





Note this farrier has his initials placed in the center of this display. Mr. Wallace W. Owen, at the age of 27, presented this exhibit of over fifty different types of corrective race horseshoes at the Columbian Exposition of 1893, in Chicago.

Mr. Wallace W. Owen,  
Watertown, WI (1866-  
1932), a renowned  
farrier of race horses.

He is pictured here  
in his office, at the  
age of 46.

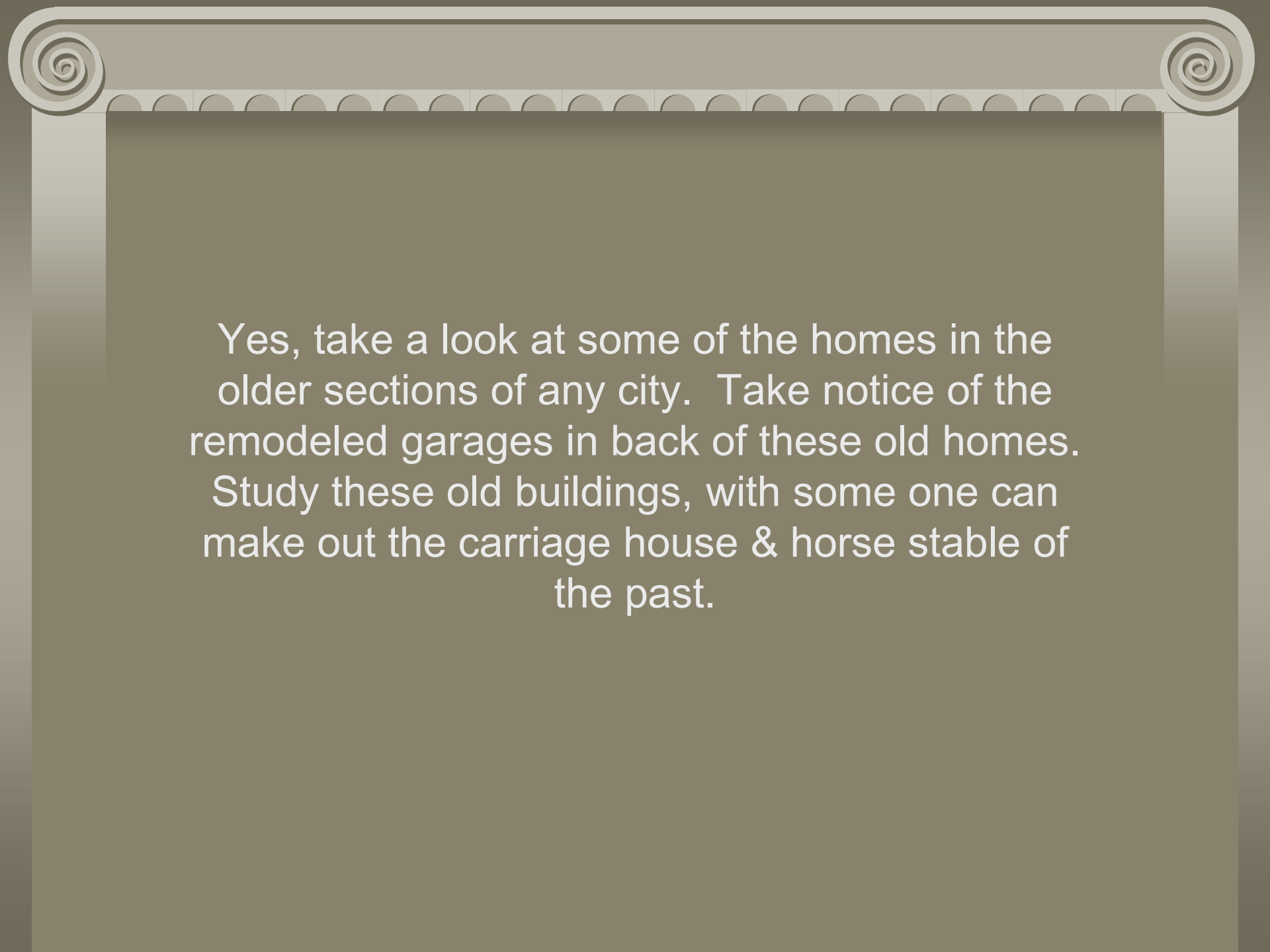


According to the U.S. Census Bureau (2006), the number of farriers is increasing due to renewed national interest in horseback riding and racing. About 2 percent of U.S. households own horses, bringing the industry, led by Kentucky, to more than \$1 billion a year. The farrier trade was nearly lost as motorized farm equipment reduced the number of horses used in the country and veterinarians took over the animals' care.

Source: Veterinary Practice News Vol. 19/No.10 Oct. 2007



Are there any reminders today of when the horse was the supreme symbol of power?

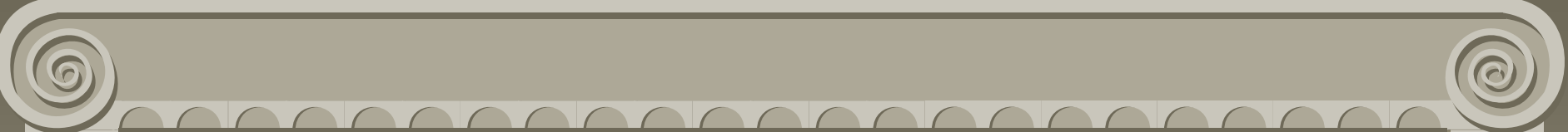


Yes, take a look at some of the homes in the older sections of any city. Take notice of the remodeled garages in back of these old homes. Study these old buildings, with some one can make out the carriage house & horse stable of the past.



This rare Second Empire Style Architecture  
was popular from 1860-1880





The most identifiable character, the mansard roof, was designed by an earlier French architect, Francois Mansart (1598-1666). The mansard roof has two slopes on all four sides with curbs around the tops of its visible slopes. The style imitates urban town-houses that lined the avenues of Paris. Dormer windows usually protrude from the roof.

The mansard roof is also carried over to the massive carriage house and horse stable







Beautiful restored home on  
Division St., Fond du Lac, WI



And a wonderfully restored  
Carriage House & Stable, behind this home



## Carriage House & Horse Stable - 1896





## Carriage House & Horse Stable - 1900



The Ebert House – 1892, “Painted Lady” located  
on the corner of Park Ave. and Division St.



## The “Painted Lady’s” Carriage House & Stable - 1892



Stately home on Division St. with a  
remodeled Carriage House & Stable



Carriage House & Stable – 1899  
with a remodeled addition




This well-restored carriage house & stable was once owned by Dr. L.A. Bishop, a physician in the 1890's. His office and his residence was around the corner.



Note the two medical symbols (caduceus) above "bricked up" windows

Then this carriage house & stable was owned by the Hardgrove & Gordon Funeral Home, during 1920-30-40's. They had used horse-drawn funeral hearses during that time, until the early 1940's.





This funeral home maintained two horse drawn hearses, one which was encased in glass. The funeral home was built of white brick and trimmed in black, was located at 70 East 1<sup>st</sup>. St., just left of this building and on the corner. In the 1942 Fond du Lac Telephone Book, their phone number was listed as 993.




An excellent example of a horse-drawn funeral hearse




## Studebaker Carriage - 1885





Note the glass window between the driver and the passenger compartment. The Studebaker Corporation originally started producing industrial mining wagons in 1852. In 1878, they supplied half of the wagons in the Westward migration and the wagon train pioneering. The company began to build horse carriages, as pictured here. They entered the automobile business in 1902 with electric vehicles and 1904 with gasoline vehicles. They built automobiles till 1966.



In many cities, restored carriage houses and horse stables are still present in the older sections of the city. It is amazing to see how many have remained.

A pleasant memory of the era of the horse and the “Horse Doctor.”

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This PowerPoint presentation is part of an ongoing program by the American Veterinary Medical History Society to advance the study of veterinary history. This presentation has been sent to all of the thirty-six veterinary schools in North America. There are five veterinary schools in Canada, three in the Caribbean and twenty-eight in the United States.

For any veterinary student or veterinarian who is interested in joining an outstanding organization, whose sole purpose is to promote the study of the history of veterinary medicine, e-mail for more information in becoming an AVMHS member, by contacting:

Susanne Whitaker, Secretary/Treasurer  
American Veterinary Medical History Society  
[skw2@cornell.edu](mailto:skw2@cornell.edu)

Fred J. Born, DVM graduated from Michigan State University in 1962. He is a Life Member of the American Veterinary Medical Association and the Wisconsin Veterinary Medical Association (WVMA). Until his retirement in 1998, Dr Born was the senior partner of a six veterinarian mixed animal practice based in Fond du Lac, Wisconsin. During his career, Dr. Born authored three visual-aid veterinary textbooks and in 1971, received the “Veterinarian of Year” Award from the WVMA that represents the highest award of the association based on peer selection. In related professional activity, Dr Born, for the past 35 years, has served as Director of the WVMA’s “Turn of the Century” Veterinary Museum at the Galloway House & Village in Fond du Lac, WI. He has recently served his second term as a very active and contributing member of the Board of Directors for the American Veterinary Medical History Society. Fred and Joyce - his wife of 55 years - have two married daughters and five grandchildren.

