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Texas Horse

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Priceless

Talk

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Author of *The Gift Talks*

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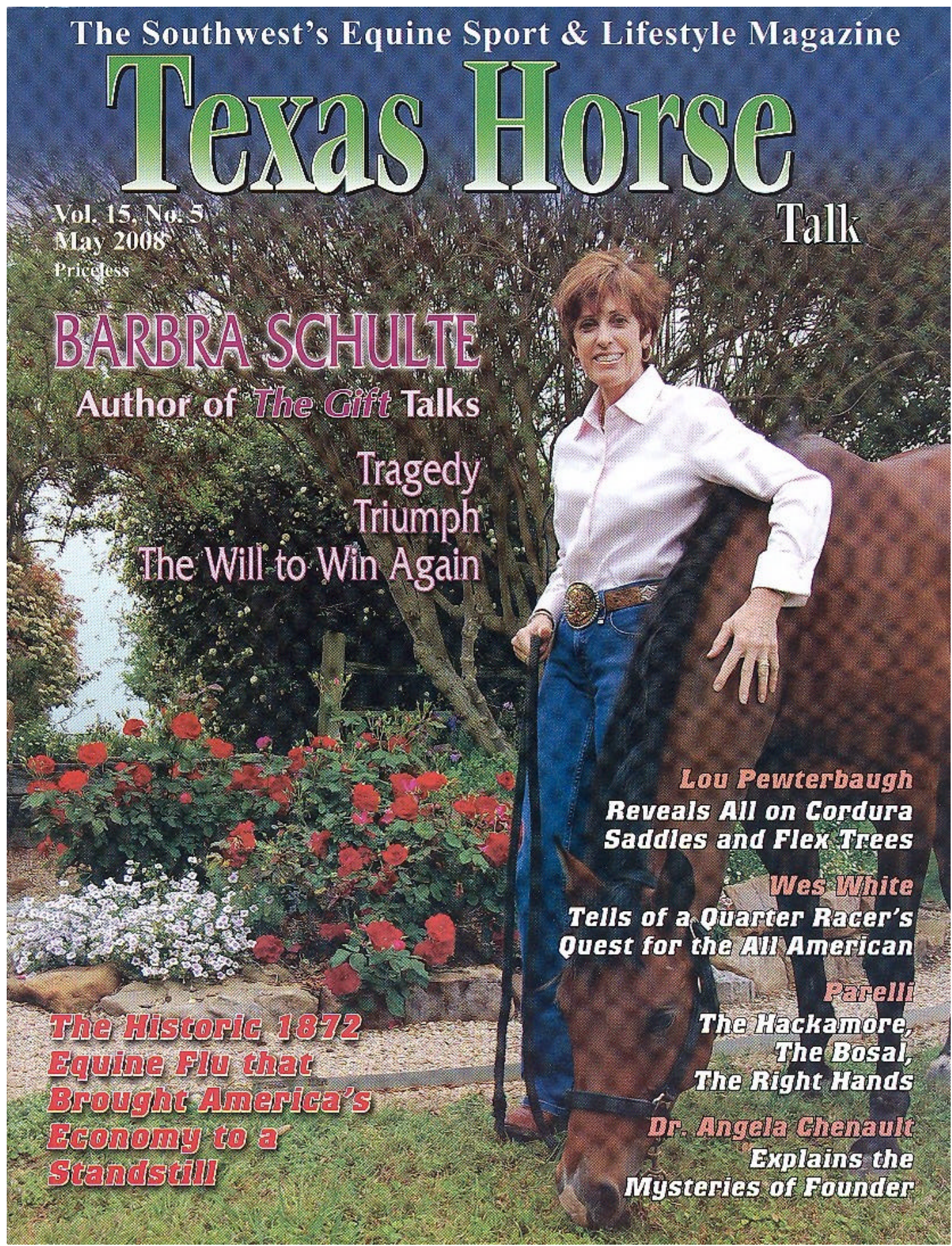
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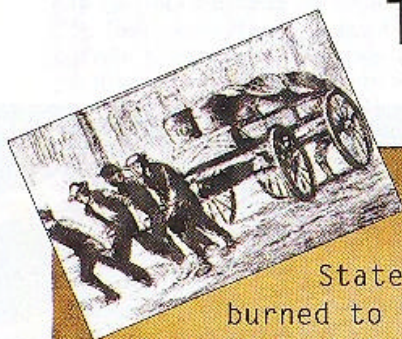
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**The Historic 1872
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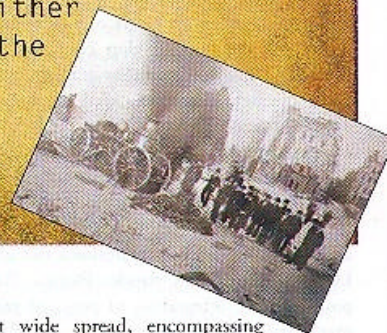
The Year America Stopped

A Scourge Just Happened
Down Under. Can it Happen Here?



In 1872, the Great Epizootic brought nearly all of North America's horses, and the United States with them, to their knees. Much of Boston burned to the ground that year without horses to pull fire engines. Perishable goods rotted, piled high on loading docks unable to be delivered. Men were harnessed to pull city trolleys. U.S. Cavalry soldiers shouldered gear and chased renegade Apaches on foot, the Indian warriors too moving about as pedestrians through the desert southwest since no healthy horses remained to carry the men of either side. Even the Texas coast came to a halt as the gateway Port of Galveston ground to a crawl.

An epizootic is an outbreak of disease affecting many animals of one kind at the same time.



Photos and Illustrations Courtesy Long Riders Guild Academic Foundation

By Tom Moates

The equine influenza that occurred seven years after the end of the Civil War in a short time crippled most of the horses in the entire country. It caused the greatest disruption to the United States' transportation system in history. The massive and significant episode strangely enough faded from the American memory as the nation charged into the petroleum driven industrial age and a new century just a few decades later.

The Great Epizootic only recently was re-discovered. Bob White, Curatorial Assistant of the Cody Firearms Museum (part of the Buffalo Bill Historical Center in Cody, Wyoming) found obscure references to the event in old texts about the Apache wars. He then worked in tandem with researchers from the Long Riders' Guild Academic Foundation (LRGAF.org) to uncover more. Soon, the team found a Texan with more personal knowledge about the Great Epizootic of 1872 than anyone else—Dallas native, Brigadier General Dr. Tom G. Murnane, U. S. Army retired, DVM, ACV Diplomate in Preventative Medicine, former Chief of U. S. Army Veterinary Corp, graduate of Texas A & M University College of Veterinary Medicine (class of 1947), and member of the American Veterinary Medical History Society.

Dr. Murnane had some general knowledge of the Great Epizootic. His own work helping with the containment and eradication of the Venezuelan Equine Encephalitis epizootic in Texas in 1971 was clearly documented and known to the LRGAF. Dr. Murnane's research efforts to help uncover more about the Great Epizootic of 1872 soon led to the discovery of one of veterinary medicine's most extraordinary documents: the section of *Report of the Commissioner of Agriculture for the Year 1872*, entitled, "Influenza in Horses," by Dr. James Law.

In an eerie historical twist, within weeks of this research breakthrough, the relevance of reflecting on the Great Epizootic shocked the LRGAF researchers and the equestrian world when, in a strikingly parallel situation, Australia, and then New Zealand, fell victims during the past year to just such an epizootic of equine influenza on their continent.

Dr. Murnane spoke with *Texas Horse Talk* in a break from his work preparing an extensive report on the subject of the Great Epizootic of 1872 for the annual meeting of the American Veterinary Medical History Society:

TEXAS HORSE TALK: What was the Great Epizootic of 1872, exactly?

DR. MURNANE: The influenza epizootic of 1872, which extended well into 1873, was the most severe in terms of morbidity and the

most wide spread, encompassing virtually all the states and territories of the United States. Indeed, it was the most severe on the North American continent. Canada was initially affected, and maritime and Caribbean islands experienced the disease, as well as Mexico and Central America. The last report of it came out of Nicaragua in September of 1873. It ran 12 months from beginning to end.

This was not a new disease as there were early historical accounts and by the 17th century, the disease was endemic in Europe and the British Isles.

Conditions in the U. S. were growing increasingly favorable for an acute contagious respiratory illness in the large horse populations concentrated in the urban areas. Adding to this, we had no prior experience with this disease. In this case we had this naive—or virgin—population of horses; they had never been introduced to the disease before, and so they were highly susceptible in the large equine populations in the urban centers. These horses had no antibodies, so they were highly susceptible to an invasive agent we now know as "equine influenza virus."

And 1872 was a few years before the pronouncement of the germ theory. There were many myths promoted to explain the cause of the disease—for example: climate conditions,

ozone, the environment in general, fungi, and others—because they had no appreciable knowledge of the germ theory.

Likewise, there were a variety of good and bad palliative treatments. Good ones, such as resting, good feed, and good water were often recommended. Bad ones like bleeding, purging, and blistering were also seen at the time.

THT: Why was it such a major event?

DR. MURNANE: The U. S., like the rest of the world in the 19th and early 20th centuries, was literally a "horse powered nation." Horses were employed extensively for transport of people and cargo and industrial power.

Equine influenza is an acute respiratory disease of horses; no other animals were affected. The Great Epizootic began in Canada in late September or early October of 1872, and extended into the Detroit, Michigan area, and almost simultaneously into Buffalo, New York, with the introduction of infected Canadian horses.

Recall horse transport moved freely and extensively between locals, towns, cities, and countries. Infected horses readily moved the disease to other highly susceptible horses in stables or work sites as the disease swept through urban areas, transportation and working horses were acutely affected and rendered unusable until recovery weeks or months later. Mortality was low, ranging from less than 1%, to 3 or 5%. Although comparatively small, the death of 1,410 attributed to horse flu in New York City in the estimated population of 38,272 the rendering and disposition of substantially more carcasses than normal was a large logistical issue.

Cities were virtually paralyzed. It is estimated that 80 to 99% of horses were affected. Working mules underground in mines in Pennsylvania succumbed to the disease six days after the horses working on the surface were affected.

From October 1872, the disease moved progressively onward to contingent states and even bridged oceans to appear in Halifax, Nova Scotia

on November 27th, and Havana, Cuba December 7th, 1872 from imported horses.

By October 29th, the disease had appeared in Chicago. The epizootic continued its westward and southwestern movement reaching Galveston, Texas in November 1872, the Idaho territory in late March 1872 via the overland stage horses, and the northwest Washington territory in April, extending through June of the year.

The epizootic ultimately engulfed the entire North American continent over a period of 8 months from October 1872 to June 1873, and extended into Mexico and Central America beginning in February of 1873, continuing through adjoining countries making its last appearance in Nicaragua in September 1873, virtually a full year since its beginnings.

THT: Could such an equine influenza epizootic again break out in the U.S.?

DR. MURNANE: I seriously doubt that there would ever occur an epizootic of this magnitude again in the U.S. or Canada. There may arise localized outbreaks at sites where horses are concentrated at shows, sales, sporting events like rodeo, and the like. Today we have reliable equine influenza vaccines containing both strains of equine influenza viruses. Most official horse functions mandate vaccination of all entries.

Strict isolation, quarantine, and other controlled movements of horses must be instituted promptly on any presumptive diagnosis, and rigidly extended with confirmatory laboratory diagnosis. Antibiotics are useful for secondary bacteriological infections, but of no value for treatment of the viral infection.

Anti-viral drugs may have a place in prophylaxis or treatment of the disease. They are very expensive at present.

THT: What similarities were there in the Great Epizootic of 1872 and the equine influenza epizootic that just wrapped up in Australia and New Zealand?

DR. MURNANE: I think the similarity was in both continents naive (virgin) horse populations existed that were highly susceptible. Neither populations of horses were inherently immune, so the epizootics occurred.

In Australia, they were able to affect quarantine measures. Infected horses came to a relatively small number, not like the hundreds of thousands in the U.S. in 1872.

These situations were immunologically similar, but the concentration was very different. Susceptibility was similar in both cases.

THT: Please explain the significance of Dr. Law's report that was recently uncovered during your research of the Great Epizootic.

DR. MURNANE: The document was THE seminal and comprehensive report of the Great Epizootic of 1872.

I felt there had to be a report somewhere. In my other texts, this report was referenced. I was able to provide a librarian at Texas A & M University some information on it and she found it.

Dr. James Law's report to the Commissioner of Agriculture was the most substantive investigative report on the 1872 equine influenza epizootic in the U.S. The 45 page report carefully dispelled popular theories about causation of a disease and focused on the contagion theory of that era.

I believe it is the first epidemiological report in veterinary medicine in the U.S. It is my belief that he is to be acknowledged as America's first veterinary epidemiologist.

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Texas Horse Talk extends its thanks to the Long Riders Guild Academic Foundation for its assistance with this story.

An extensive summary of The Long Riders Guild Academic Foundation's material on the outbreak can be found here:

<http://www.lrgaf.org/news%20stories/epizootic.htm>

The LRGAF collection includes a hitherto "lost" 19th Century governmental study documenting the spread of the disease, a map detailing its spread, an interview with Dr. Murnane, and assorted historical documents.

The Long Riders Guild

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