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THE GOVERNMENT'S IMPORTATION OF CAMELS:

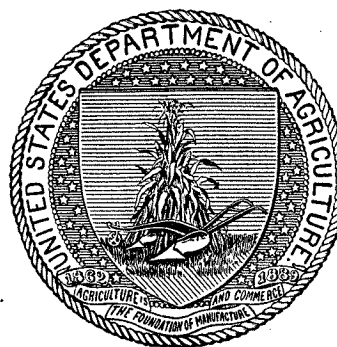
A HISTORICAL SKETCH.

BY

CHARLES C. CARROLL, A. M.,

Editorial Office, Bureau of Animal Industry.

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THE GOVERNMENT'S IMPORTATION OF CAMELS: A HISTORICAL SKETCH.

By CHARLES C. CARROLL, A. M.,
Editorial Office, Bureau of Animal Industry.

In the early "fifties" the Government was sorely beset with difficulties in protecting the vast frontiers of the country from the ravages of hostile Indians. The transportation of men and supplies over the great reaches of plain, mountain, and desert that stretched between the Mississippi River and the Pacific coast was a problem that swallowed liberal appropriations of money and used up thousands of mules, and was in the end so poorly solved as to chafe and fret the spirits of successive commanders. The roving Indian, with his agile pony that enabled him to make deadly swoops on isolated settlements and escape with ease, was a continual nightmare to the War Department; while the unprotected condition of the Pacific coast, so remote and so painful of access, disturbed it no less. Under these circumstances it occurred to the military officials that the use of the camel might at least aid them in performing the difficult duties of protecting the expanding frontier and of keeping open a line of communication between the Mississippi and the coast.

The idea of transplanting this old servant of mankind from the East into America was not a new one. After the conquest of South America by the Spaniards, it is recorded that Juan de Reineza, a Biscayan, made an attempt to introduce camels into Peru, and toward the end of the sixteenth century camels were seen near the foot of the Andes by José Acosta, the Spanish missionary and writer. But the animals were not looked on with favor by the ruling Spaniards, and they dwindled away. In 1701 a vessel, probably a slave trader, brought some camels from Guinea to Virginia, but no record remains of the enterprise except that it failed. In the early times camels were brought also to Jamaica and employed there with success until a small insect, called the "chiqua," so we are told, got into their feet and ended their usefulness.

Maj. George H. Crosman was the first of our military men to consider and advocate the use of the animal for military purposes in this country, the transportation difficulties of our stubborn Indian war in Florida convincing him that camels might be used with effect. He made a study of the subject, and about 1836 brought it to the atten-

46783

tion of the authorities. His ideas were taken up by Maj. Henry C. Wayne, whose studies on the subject were more complete, and who, as early as 1848, suggested to the War Department and to members of Congress the plan of a Government importation. At about the same time Jefferson Davis, then a United States Senator from Mississippi, was impressed with the desirability of trying the animals, and, as chairman of the Committee on Military Affairs, labored until he left the Senate (in 1851) to secure some practical test by the Government.

The suggestion that camels be used in this country for travel, for carrying the mails, and for transporting supplies is frequently met with in the newspapers of the "forties." These suggestions were made both by tourists from other countries, surprised at the wide extent of our territory, and by observant Americans who had traveled in the Orient and had become acquainted with the universal use of the animal throughout all of the eastern countries.

John Russell Bartlett, who was appointed in 1850 by President Taylor as a commissioner to run the boundary between this country and Mexico, on making the report of his three years' service in that work, strongly urged that camels be employed by the Government in the Southwest. At about this time, too, Prof. George P. Marsh, the philologist and diplomat, who served this country as minister to Turkey and to Italy, published an instructive book on the camel "considered with reference to his introduction into the United States," taking the ground that an energetic attempt to import and use these animals could not but result in success.

In the winter of 1852-53 the proposition was made to the Committee on Military Affairs in the Senate to authorize the Secretary of War to import 30 camels and 10 dromedaries, together with 10 Arabs, to look after them, the proposal being supported by a paper of some length by Mr. George R. Gliddon, the archeologist, who had lived twenty-eight years in the Levant, and was, during eight years of that time, United States consul at Cairo. No measures were taken, however, by that Congress to provide for the importation.

When, in 1853, Jefferson Davis became Secretary of War in the Cabinet of President Pierce, he came more intimately into contact with the troubles of military transportation in our great West, and resolved to give the camel an opportunity to lessen these difficulties. Major Wayne was asked to prepare some remarks on the subject, to be used as the basis of an appeal to Congress, and he wrote a paper in favor of the project. This paper was liberally drawn upon by the Secretary when he submitted his annual report and recommendations in December, 1853. This report, which was transmitted with the President's message to Congress, aroused a good deal of interest on account of the general belief that something could be accomplished with camels in this country. After reciting the dangers of the slow

transportation between the East the result of an exploration with the purpose of locating the best railway, Secretary Davis said that but partly remove the difficulty and to supply depots along the route but there would still be vast regions its depots materially to feel its effect continued, "in regions reaching embracing arid plains and precipitous camels are used with the best merce of central Asia, and have Circassia to the plains of India and as a substitute for dragoons Napoleon who, by the use of the subdued the Arabs, a race "very similar to those of the mountains. Mr. Davis, therefore, believed want in the way of carrying moving troops rapidly across "necessary provision be made number of both varieties of this tion to our country and our service.

The Secretary's recommendation Congress, but it served to encourage would prove useful as a beast of company was formed in New York legislature of that State, with the developing a number of camels them in transportation in the "The American Camel Company King, Charles W. Webber, and specialist on the subject.

In his report of December, 1853, drawing attention to the great sums of men and supplies, said, "I again be anticipated from the use of for purposes, and, for reasons set forth I recommend that appropriation be made of varieties of this animal to test the committee that prepared the animal still skeptical, for the bill came camels. In this body an amendment Illinois, was attached, appropriate the direction of the War Department

as were taken up by Maj. Henry C. Subject were more complete, and who, the War Department and to members of Government importation. At about the time a United States Senator from Mississippi, in his inability of trying the animals, and, as Secretary of Military Affairs, labored until he left the country for a practical test by the Government. He was used in this country for travel, for carrying supplies is frequently met with difficulties." These suggestions were made in various countries, surprised at the wide extent of the interest of Americans who had traveled in the East and had learned with the universal use of the animals in those countries.

He was appointed in 1850 by President Polk to examine the boundary between this country and Mexico. Part of his three years' service in that capacity was spent by the Government in the East, and he was employed by the Government in the West, and, too, Prof. George P. Marsh, the Secretary of the Interior, visited this country as minister to Turkey, and published an instructive book on the camel "concerning its introduction into the United States," and made a vain attempt to import and use these animals in the West.

His opposition was made to the Committee on the Interior to authorize the Secretary of War to import dromedaries, together with 10 Arabs to be employed in the West, being supported by a paper of some length, written by the archeologist, who had lived in the East, and was, during eight years of that country, a great success. No measures were taken, however, for the importation.

When he became Secretary of War in the year 1854, he came more intimately into contact with the subject of transportation in our great West, and he saw the opportunity to lessen these difficulties. He made some remarks on the subject, to the Secretary of War, and to Congress, and he wrote a paper in which the subject was liberally drawn upon by the Secretary of War in his annual report and recommendations to Congress, which was transmitted with the Secretary's report, and aroused a good deal of interest on the part of the Government at something could be accomplished in the West after reciting the dangers of the slow

transportation between the East and the West, and giving in detail the result of an exploration which had been ordered by Congress for the purpose of locating the best route for a proposed transcontinental railway, Secretary Davis said that even such a railway, if built, would but partly remove the difficulty. It would serve to transport troops and to supply depots along the route and at the extremity of the line, but there would still be vast reaches in the interior too remote from its depots materially to feel its effect. "On the older continents," he continued, "in regions reaching from the torrid to the frozen zones, embracing arid plains and precipitous mountains covered with snow, camels are used with the best results." They carry all the commerce of central Asia, and have been used from the mountains of Circassia to the plains of India to transmit dispatches, draw ordnance, and as a substitute for dragoon horses. The example is cited of Napoleon who, by the use of the dromedary in his Egyptian campaigns, subdued the Arabs, a race "whose habits and country were very similar to those of the mounted Indians of our Western plains." Mr. Davis, therefore, believed that the dromedary would supply a want in the way of carrying expresses, making reconnaissances, and moving troops rapidly across country; and he recommended that "necessary provision be made for the introduction of a sufficient number of both varieties of this animal to test its value and adaptation to our country and our service."

The Secretary's recommendation did not bring results from that Congress, but it served to encourage those who believed that the camel would prove useful as a beast of burden in the United States, and a company was formed in New York, under a liberal charter from the legislature of that State, with the announced objects of importing and developing a number of camels of different kinds and of employing them in transportation in the West. The organization was styled "The American Camel Company," and its officers were William G. King, Charles W. Webber, and Edward Magouran, the last an enthusiast on the subject.

In his report of December, 1854, Secretary Davis, after again calling attention to the great sums expended for the transportation of men and supplies, said, "I again invite attention to the advantages to be anticipated from the use of camels and dromedaries for military purposes, and, for reasons set forth in my last annual report, recommend that appropriation be made to introduce a number of the several varieties of this animal to test their adaptation to our country." The committee that prepared the annual army appropriation bill seemed still skeptical, for the bill came to the Senate with no provision for camels. In this body an amendment proposed by Senator Shields, of Illinois, was attached, appropriating \$30,000 "to be expended under the direction of the War Department in the purchase and importation

of camels and dromedaries to be employed for military purposes." In the House the proposition had for its sponsors Mr. Phelps, of Missouri, and Mr. James A. McDougall, of California, the latter venturing the prediction that the results of the experiment would "prove invaluable to the country." After the usual vicissitudes of amendments to appropriation bills, this proposition became a law in March, 1855.

Secretary Davis lost no time in beginning what he evidently expected to prove a most successful and far-reaching experiment. In May he directed Major Wayne to proceed to the Levant, stopping in England and France for the purpose of interviewing military men in those countries in regard to the camel and its uses in war. The Secretary of the Navy placed at the disposal of Mr. Davis the storeship *Supply*, with her crew, under the command of Lieut. David D. Porter (afterwards Admiral Porter), for the purpose of transporting the animals to this country. It was supposed that the climate of Texas would more nearly furnish such conditions as the camels were accustomed to, and it was accordingly ordered that they should be landed at the most convenient point in that State.

Major Wayne arrived in England in June, 1855. After inspecting the show camels at the zoological gardens in London and interviewing scientists and military men, he went to Paris, where he pursued the same course, obtaining considerable valuable information. He joined Lieutenant Porter and the *Supply* at Spezzia, Italy, June 24.

In the meantime Lieutenant Porter, having discharged his cargo of supplies for our Mediterranean squadron, and entering heartily into the spirit of the camel enterprise, had visited the farm of the Grand Duke of Tuscany, near Pisa, where camels had been bred and used for two hundred years. The original stock had come from Egypt, and a sufficient number were kept by the Tuscan ruler to perform the work of 1,000 horses. The animals were found to be performing hard work daily, being forced to carry loads as high as 1,300 pounds each, and toiling from sunrise to sunset. Despite this arduous service, they were badly treated by unappreciative keepers; were forced to obtain their entire subsistence by their own gleanings from nearly barren tracts of land covered with stunted pines and scanty grass, and were never housed, although the climate was hot in summer and cold in winter. The number was limited, but this seemed to be because the Grand Duke did not permit them to be used off his own estates.

In order that they might be able personally to study the animals, ascertain how the voyage would be likely to affect them, and how the arrangements they had made for embarking and stabling would work, Major Wayne and Lieutenant Porter determined to secure one camel at the first opportunity. They accordingly sailed directly for Tunis, where early in August they bought their first animal. Upon apply-

ing for a permit to bring it off, to the United States through the fine animal, that subsequently proved himself a sturdy sailor. 10,000 miles and was landed 1 months after his embarkation.

The voyage was resumed and ber. From this city the officer Balaklava, in the Crimea, to 1 that were used in the Crimean them an opportunity of inspe the English, and they gained 1 as pertinent and valuable. T Sind some 25,000 camels had 1 an unusually acute student of factory had they proved in th Balaklava were to be increas Arabian," or one-humped, can average load was 600 pounds, of 1,000 men mounted on 500 c ice under General Napier. It hours. On arriving at the des keepers and 500 men operated hobbled in a hollow square, ev necessity. The Bactrian, or Balaklava, but, though stronge so much used because of the di humps and because slower in over what they saw and heard Porter declaring that in the U (about the latitude of Raleigh, the greatest care, and that it greater than that of the horse. see the day when every South extensively, and he thought th might then be imported from

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ing for a permit to bring it off, the Bey of Tunis graciously presented to the United States through them two other camels—one, at least, a fine animal, that subsequently became the veteran of the herd and proved himself a sturdy sailor, for he accompanied the ship for over 10,000 miles and was landed in good health on American soil nine months after his embarkation.

The voyage was resumed and Constantinople reached early in October. From this city the officers, leaving the ship, made a side trip to Balaklava, in the Crimea, to learn what they could about the camels that were used in the Crimean war. The English quartermaster gave them an opportunity of inspecting the animals in the possession of the English, and they gained much information which they regarded as pertinent and valuable. They were told that in the conquest of Sind some 25,000 camels had been used by Gen. Sir Charles Napier, an unusually acute student of transportation problems; and so satisfactory had they proved in the Crimea that the numbers on hand at Balaklava were to be increased for the next campaign. Here the Arabian,^a or one-humped, camel was used almost exclusively. The average load was 600 pounds, carried 25 to 30 miles a day. A corps of 1,000 men mounted on 500 camels had rendered most effective service under General Napier. It was often marched 70 miles in twelve hours. On arriving at the desired point, the camels were left with the keepers and 500 men operated as infantry, the camels, kneeling and hobbled in a hollow square, even serving as a breastwork in case of necessity. The Bactrian, or two-humped, camel also was found at Balaklava, but, though stronger and heavier than the Arabian, was not so much used because of the difficulty of placing the load over his two humps and because slower in pace. Both officers were enthusiastic over what they saw and heard of the camel in the Crimea, Lieutenant Porter declaring that in the United States, at any point south of 36° (about the latitude of Raleigh, N. C.), the camel would be fostered with the greatest care, and that its value there for labor would be much greater than that of the horse. He expressed the hope that he might see the day when every Southern planter would be using the camel extensively, and he thought this not improbable, as a good work animal might then be imported from Smyrna for about \$300.

^aThe natural historians have generally designated the two-humped animal of this genus as the camel and the one-humped as the dromedary. After careful study and observation in the home of the animal Major Wayne disregarded this classification and speaks of it as of two distinct species—the Bactrian and the Arabian. The Bactrian has two humps; it came originally from Bactria and is now found more generally in Tartary and the northern parts of Central Asia. The Arabian has but one hump and is found principally in Arabia, Persia, Asia Minor, and India. The dromedary (Greek *dromas*, a runner) is simply a swift courser, or racer, as distinguished from the camel of burden (always, however, Arabian, or one-humped).

Two of the three camels procured at Tunis had shown symptoms of the itch; and, as it was feared that they might infect the ship with the disease, they were sold. Their lazy life on the vessel, coupled with good care and abundant food, had so fattened them that there was no trouble in finding a Turkish butcher, whose bid of \$44 for the two was accepted. The Sultan, professing great interest in the experiment of our Government, offered to present 4 of his finest animals, but, as they had to be fetched from Asia, our officers deemed it imprudent to wait. Persia had been thought to be the best place to procure fine camels, but it was now so late in the season that the mountain passes were filled with snow and ice, and a trip to that distant country would have been difficult, if not impossible. So the *Supply* was headed for Egypt, arriving at Alexandria in December. Major Wayne journeyed on to Cairo, where he purposed buying 20 dromedaries. An unexpected obstacle was encountered in the "custom of the country." In order to avoid having all his good camels and horses sent out of his domain to supply the wants of the Eastern war, the viceroy had made a law that no animal of any kind should be exported, and it was with the greatest difficulty that he was prevailed upon to issue a permit, first for the exportation of 2 camels, then of 10. The last concession came too late, however, as, wearying of the slow processes of oriental routine (the negotiations being conducted in due form through the American consul), Major Wayne had determined to sail after loading but 3 camels. But now the viceroy himself had become interested in the experiment of the United States, and proposed to present the Government with 6 dromedaries. It seems to have been the intention of the ruler to present 6 of his finest beasts, and on learning of the proposed gift the major and lieutenant were aroused to the highest pitch of pleased anticipation, particularly as they had met with such ill success in their purchases and had been so worried by the unforeseen rules against exportation. They expected nothing less than a group of lithe-limbed, deep-chested racers of the best blood of Oman or Nubia—the flower of the royal herd, with pedigrees reaching back toward the beginnings of recorded time. After a week of impatient waiting, they were informed that the present of the potentate was in readiness in the palace yard and, upon going to embark it, their chagrin was severe when, instead of the swift, well-kept dromedaries of the desert, they found a wretched half dozen of the commonest street camels of Alexandria, their hanging heads showing the spirit broken by ill usage, half denuded of hair by the itch, and loathsome from disease. Lieutenant Porter spurned the gift and took little pains to conceal his disgust. The viceroy's minister was informed of the miscarriage of his master's well-intended liberality, and the blame was laid on the rascally subordinates to whom the selection of the present had been intrusted; and, after another week of waiting, 6

fairly good camels were forthwith on January 22, 1856, she had a camel.

Our officers reached Smyrna in advance Mr. Gwynn H. Heap, the remainder of their shipment and the latter item was carefully attended to. fitting saddles could not be obtained. acquaintance with the language of the country serving as vice-consul at Tunis was the best advantage. Those had been at various points in the interior, generally infected with the itch. khans. He appears to have paid a price as high as \$400 each for a male and as high as \$400 each for a female, being about \$250. No such fine animal were paid, although in this country that the camels had been bred each. The prices, indeed, were according to breeding, size, and training to \$1,000 and over. A sound animal of 400 to 600 pounds could be bought for \$1,000, the common stock being purebred animals from \$150 to \$200, while two-humped Bactrian

Lieutenant Porter solved, with the help of the crew, the problem of loading the camels into the boat. The camels, long and 7 feet wide, flat-bottomed, were driven to the beach. He then constructed a platform and bound with iron, with a double row of chains into the boat. The camel was coaxing and refused to enter, till he was driven in. The car, mounted on rollers, was pushed and into the boat. The car with the animals, averaging in weight 2,000 pounds, were loaded in half an hour.

The home voyage was begun on January 22, 1856, and follows: Nine dromedaries, or 8 males and 1 female. Among them were 2 Bactrian camels (1 male and 1 female with the Arabian female. The male was named Tuilu and female Maya), is always the pure Arabian and on this occasion was carrying an animal. Mr. Heap had a fellow 7 feet 5 inches in height

ed at Tunis had shown symptoms of they might infect the ship with the life on the vessel, coupled with good tened them that there was no trouble bid of \$44 for the two was accepted. rest in the experiment of our Gov- his finest animals, but, as they had cers deemed it imprudent to wait. e best place to procure fine camels, son that the mountain passes were to that distant country would have So the *Supply* was headed for 1 December. Major Wayne jour- posed buying 20 dromedaries. An ed in the "custom of the country." good camels and horses sent out of f the Eastern war, the viceroy had kind should be exported, and it was was prevailed upon to issue a per- camels, then of 10. The last con- us, wearying of the slow processes ons being conducted in due form or Wayne had determined to sai ow the viceroy himself had become he United States, and proposed to omedaries. It seems to have been sent 6 of his finest beasts, and on major and lieutenant were aroused ficipation, particularly as they had chases and had been so worried by ation. They expected nothing less -chested racers of the best blood of royal herd, with pedigrees reaching rded time. After a week of impa- that the present of the potentate rd, and, upon going to embark it, tead of the swift, well-kept drome- wretched half dozen of the com- , their hanging heads showing the uded of hair by the itch, and loath- ter spurned the gift and took little viceroy's minister was informed of -intended liberality, and the blame ites to whom the selection of the after another week of waiting, 6

fairly good camels were forthcoming. Thus, when the *Supply* sailed on January 22, 1856, she had on board 9 dromedaries and the Tunis camel.

Our officers reached Smyrna January 30, and, by having sent in advance Mr. Gwynn H. Heap, they were able to assemble rapidly the remainder of their shipment and prepare pack saddles and covers. This latter item was carefully attended to, as it was certain that properly fitting saddles could not be obtained in the United States. Mr. Heap's acquaintance with the languages and customs of the East, gained while serving as vice-consul at Tunis, enabled him to purchase the animals to the best advantage. Those he brought to Smyrna were bought at various points in the interior, the town camel being avoided, as it was generally infected with the itch caught from the streets and dirty khans. He appears to have paid as low as \$100 for at least one animal and as high as \$400 each for several others, the average price being about \$250. No such fancy prices as \$1,800 to \$2,000 for a single animal were paid, although the idea was prevalent at the time in this country that the camels had cost the Government about \$2,000 each. The prices, indeed, were found to vary, as do those of horses, according to breeding, size, training, and soundness, ranging from \$15 to \$1,000 and over. A sound burden camel capable of carrying from 400 to 600 pounds could be bought at \$50 to \$130, a dromedary at \$45 to \$1,000, the common stock bringing \$45 to \$150, and the swifter, purebred animals from \$150 up. - A good Tuilu, or Maya, brought \$200, while two-humped Bactrian breeders sold at \$300 to \$600.

Lieutenant Porter solved, with his customary intelligence, the problem of loading the camels into the ship. He built first a boat 20 feet long and 7 feet wide, flat-bottomed so that it would easily slide up on the beach. He then constructed the "camel car," very strongly made and bound with iron, with a door at each end, and shaped to fit snugly into the boat. The camel was coaxed into the car, or, if he withstood coaxing and refused to enter, ten sailors with a block and tackle forced him in. The car, mounted on trucks, was then rolled down the beach and into the boat. The car weighed 1,000 pounds and by means of it the animals, averaging in weight 1,400 pounds, but going as high as 2,000 pounds, were loaded into the ship at the rate of one each half hour.

The home voyage was begun February 15, 1856, with 33 animals, as follows: Nine dromedaries, or runners, 23 camels of burden, and 1 calf. Among them were 2 Bactrian males (two humped) for use in breeding with the Arabian female. The offspring, called a "booghdee" (male Tuilu and female Maya), is always one humped and much heavier than the pure Arabian and on this account is greatly prized as a burden-carrying animal. Mr. Heap had picked up a fine Tuilu, an enormous fellow 7 feet 5 inches in height, 10 feet long, 9 feet 9 inches in girth,

and weighing when in good condition 2,000 pounds. Lieutenant Porter was obliged to cut a hole in the floor of the deck which served as the ceiling of the camel stable in order to accommodate this Tuilu's hump. Seven males were included in the load, the remainder being females, not counting the booghdee, which will not breed.

It was an interesting voyage home. The staunch little sailing craft met the most tremendous gales in the Mediterranean and was buffeted by unusually heavy weather during most of her trip across the Atlantic. It was often necessary, in order that they might not be injured by the tossing of the sea during the more violent storms, to tie the camels down in the position they assume when kneeling to receive their burdens, which posture they held for days at a time, eating and drinking much as usual and suffering no harm beyond a temporary stiffening of the joints.

The camels occupied a huge stable between decks. A thoughtful contrivance was a covered structure 60 feet long, 12 feet wide, and 10 feet high, which was placed on the upper deck, above the animals' quarters. Along the sides of this were placed at frequent intervals large portholes fitted with glass windows and heavy shutters. A hatch was provided in the top so as to let the animals down to their deck, and this aperture, being so far above the upper deck, could be kept open even during storms when it was necessary to close the portholes. Thus fresh air was assured in all kinds of weather—a very important matter on shipboard.

The success of this part of the experiment was due to the sagacity and watchfulness of Lieutenant Porter, who reduced the care of the animals to a military basis. He promulgated a set of "rules and regulations for the camel deck," requiring, among other things, that one person should always be on watch; the camels to be fed and watered every day at 3 o'clock precisely; the females having young to be fed and watered, in addition, at 7 o'clock in the morning; the deck never to be wet except by order; the hayracks to be filled every two days, and the amount of food to be kept account of; the camels never to be struck with anything but the flat of the hand; their beds to be littered down before sunset; each camel to be curried and brushed half an hour every day and their feet and legs to be well rubbed; their feet to be cleaned with soap and water twice a week; particular care to be observed in putting hay under their knees and haunches when they lie down; "the least thing the matter with an animal to be reported at once." The strictest cleanliness was exacted, the stalls being cleaned daily, and frequently whitewashed. The daily ration of food consisted of a gallon of oats, 10 pounds of hay, and a gallon of water to each animal, this being varied by occasional portions of crushed pease or barley made into a dough ball; salt was served once a week. The animals got along very well on this regimen, although

their natural diet consists of kinds of trees and shrubs, with bushes of a bitter and astringent and thorny vegetation a dainty.

No experiments were made to go without water, and the information of the expedition shows that the camel needs water each day. He has a set of several storerooms where water is stored to the extent that this can be drawn upon when needed. Habituated to traveling across the desert, he developed the power of drinking, and nature has assisted him that he perspires very scantily. His habit of drinking vast quantities of water for use in emergencies.

It is shown by the fact that during long journeys his habit of drinking gradually decreases in length of the packing thongs. The hump has almost entirely disappeared and is pure fat. After a course of travel it increases in size that it is available. It is said to be customary to cut the slices of fat. This fat has so much value and was said to be much esteemed for coffee, but our investigators found it of little use.

The strict regulation again was necessary because the camel can travel on a slippery surface. In Asia Minor, he travels loaded and in the Tartary he travels loaded and in the deserts alike, exhibiting no fear of mud. Here he loses control and if not helped generally either by literally splitting himself or by literally splitting himself.

Six Arabs, one of them a gentleman, go along with the ship, with the exception of the services for the animals, but they were unnecessary in the expedition because he represented himself as familiar with the management of the animals. This gentleman turned out to be a cold was a piece of cheese powder; and for some further

on 2,000 pounds. Lieutenant floor of the deck which served her to accommodate this Tuilu's the load, the remainder being high will not breed.

The staunch little sailing craft Mediterranean and was buffeted most of her trip across the order that they might not be ng the more violent storms, to they assume when kneeling to hey held for days at a time, eat-uffering no harm beyond a tem-

between decks. A thoughtful 0 feet long, 12 feet wide, and 10 upper deck, above the animals' ere placed at frequent intervals vs and heavy shutters. A hatch he animals down to their deck, the upper deck, could be kept necessary to close the portholes. s of weather—a very important

eriment was due to the sagacity er, who reduced the care of the mulgated a set of "rules and iring, among other things, that ch; the camels to be fed and ely; the females having young 7 o'clock in the morning; the the hayracks to be filled every be kept account of; the camels he flat of the hand; their beds to amel to be curried and brushed nd legs to be well rubbed; their er twice a week; particular care their knees and haunches when matter with an animal to be anliness was exacted, the stalls whitewashed. The daily ration 10 pounds of hay, and a gallon arried by occasional portions of ough ball; salt was served once well on this regimen, although

their natural diet consists of the leaves and tender branches of all kinds of trees and shrubs, while they have a special fondness for dried bushes of a bitter and astringent flavor and seem to consider prickly and thorny vegetation a dainty.

No experiments were made to ascertain how long the camels could go without water, and the information gained by the investigations of the expedition show that the tales on this subject are largely fables. The camel needs water each day, and gets along best when so supplied. He has a set of several stomachs, in one at least of which are cells where water is stored to the extent of about a gallon and a half, and this can be drawn upon when the animal does not get his daily supply. Habituated to traveling across the deserts, he has through the centuries developed the power of going from five to eight days without a drink, and nature has assisted him by giving him a skin so constructed that he perspires very scantily. But there is nothing in his supposed habit of drinking vast quantities of water and concealing it about his body for use in emergencies. His hump does, indeed, supply him with nourishment when at work where food is scarce, this being very well shown by the fact that during a long, hard trip this unsightly protuberance gradually decreases in size, so that it is necessary to change the length of the packing thongs accordingly, until at the end of the trip the hump has almost entirely disappeared. The substance of the hump is pure fat. After a course of high living without work, the hump so increases in size that it is awkward to place a saddle on the animal. It is said to be customary then to slit the skin, lay it back, and cut off slices of fat. This fat has somewhat the appearance of thick cream and was said to be much esteemed by the Arabs, who use it in tea and coffee, but our investigators had no opportunity of testing it.

The strict regulation against wetting the camel deck was necessary, because the camel can travel over any kind of surface except one that is slippery. In Asia Minor, Syria, Persia, North Hindoostan, and Tartary he travels loaded across valleys and mountain ranges and deserts alike, exhibiting no hesitancy except when he encounters ice or mud. Here he loses control of himself, spreads his legs wide apart, and if not helped generally ends by the dislocation of shoulders or hips or by literally splitting himself up, an injury which is always fatal.

Six Arabs, one of them a Bedouin of the desert, were engaged to go along with the ship, with the idea that they would be useful in caring for the animals, but they proved helpless in bad weather, and their services were unnecessary in good weather. A Turk was also employed because he represented himself to be a "camel M. D.," perfectly familiar with the management of camels, their diseases and treatment. This gentleman turned out to be an Oriental Sangrado. His cure for a cold was a piece of cheese; for swelled legs, tea mixed with gunpowder; and for some further trifling complaint he gravely proposed

to tickle the animal's nose with a chameleon's tail. He was soon set aside by the common sense of Lieutenant Porter. In giving birth, one of the camels died, this being attributed to an injury received in loading. Two young ones, born soon after leaving Smyrna, were so much treated by the camel doctor that they also died; four others born during the voyage were kept out of his hands and would have come on very well, but one was starved because the mother could not be induced to rise and suckle it during a ten days' storm; another was accidentally lain on by an old camel and crushed. The other two were successfully reared, and, having the run of the camel deck, amused the whole ship by their friskiness and precocity; they were thoroughly at home in the worst of weather, perfectly steady on their legs, going about the deck without falling during gales that forced even the sailors to hold on to some support. Such remarkable seamanship was attributed to the fact that they were born at sea.

The show animals of the lot were two handsome dromedaries—one a Nomanieh from Oman, the other a Sennai from Nubia. Of all dromedaries the swiftest and most enduring is the Nomanieh, as it is also the best for riding, its natural gait being a movement of the hind leg and foreleg on opposite sides at the same time, or a movement of each leg in rapid succession. This gait must be taught to other breeds, as they naturally move in a rough trot. A good Nomanieh can travel from 90 to 100 miles a day, but can not keep such traveling up day after day. From fifteen to twenty days he can keep up a gait of 50 to 60 miles a day. Many stories are, of course, related of feats of endurance and speed, but these are to be taken with allowance. Our explorers found that the mail was regularly carried between Cairo and Suez on a camel. The distance is 84 miles and was covered in eighteen hours. The burden camel usually carries from 250 to 400 pounds, and travels regularly from 20 to 30 miles a day.

In the cargo were 4 Pehlevans—camels which had been taught to wrestle, a sport which is common in the East. It seems that without any training at all the animals engage in contests which are a sort of wrestling bouts. Whenever two males meet for the first time, especially if there are any females about, an encounter of this kind is indulged in. The camel that is thrown to the ground acknowledges his inferiority by scarcely daring thenceforward to look at the females. This natural propensity is cultivated by the Arabs and Turks, and the young camel is taught to wrestle, with some degree of science, by hoisting the right foreleg over the neck of his antagonist and coming down upon him with all the weight of the body. One of the Arabs employed by Major Wayne amused himself on the voyage by training "Uncle Sam," a month-old camel, to wrestle, a pastime at which he soon became so proficient and which he liked so well that it was found

necessary to tie him up, as he rushes at the men and throwing

It was in the midst of the taken on board at Smyrna. A disposed to kick and bite. "I proverb, " but it takes life away heavy jaws and the leverage of with great force. The females at this period with the purpose at the earliest time. Except at a rule, docile and well behaved strained beyond endurance by times it displays some cunning within its power, when it takes believe, however, with the Am be put in jeopardy twice for has mistreated a camel will pla beast may find it; and, after tr the camel is well satisfied and does become necessary to discipl cautioned that the punishment to take a heavy club flattened animal with great force on the back of the jaw and to keep up rolled on the ground in sign of

Mr. Albert Ray, the keeper with sagacity and zeal, does not ships among the animals, altho kept track of in his journal, i Orient, as Gourmal, Adela, Ma so on. Such friendships are Arabs, as the camel, when well to his master, though perhaps t

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 rushes at the men and throwing them to the deck.

It was in the midst of the rutting season when the animals were
 taken on board at Smyrna. At this period both sexes are cross and
 disposed to kick and bite. "The camel's kick is soft," says the Arab
 proverb, "but it takes life away;" its bite is not less terrible, as its
 heavy jaws and the leverage of its long neck enable it to pull and tear
 with great force. The females were exposed to the males constantly
 at this period with the purpose of securing as many young as possible
 at the earliest time. Except at this season, the camels were found, as
 a rule, docile and well behaved. The animal's patience is sometimes
 strained beyond endurance by the brutality of its drivers; at such
 times it displays some cunning in awaiting until the man is well
 within its power, when it takes summary vengeance. It appears to
 believe, however, with the American Constitution, that no man should
 be put in jeopardy twice for the same offense; and the driver who
 has mistreated a camel will place some part of his clothing where the
 beast may find it; and, after trampling and tearing the offender's coat,
 the camel is well satisfied and harbors no further grudge. When it
 does become necessary to discipline the beasts, our experimenters were
 cautioned that the punishment must be severe; they were instructed
 to take a heavy club flattened at the end and with this to strike the
 animal with great force on the left side of the neck about 6 inches
 back of the jaw and to keep up the beating until the refractory animal
 rolled on the ground in sign of submission.

Mr. Albert Ray, the keeper of the camels, who performed his work
 with sagacity and zeal, does not appear to have made any warm friend-
 ships among the animals, although they were individually named and
 kept track of in his journal, in the picturesque nomenclature of the
 Orient, as Gourmal, Adela, Mahomet, Massandra, Ibrim, Ayesha, and
 so on. Such friendships are common enough, however, among the
 Arabs, as the camel, when well treated, is inclined to become attached
 to his master, though perhaps to a lesser degree than the dog or horse.

By his intelligent and energetic care Lieutenant Porter thus kept
 his charges in excellent health, and landed safely at Indianola, Tex.,
 May 14, 1856, 34 camels (a gain of 1 on the voyage), all apparently
 in really better condition than when taken from the sandy wastes of
 their native deserts.

After some days of rest the herd was marched by easy stages to San
 Antonio, Tex., about 120 miles, where Major Wayne set about making
 arrangements to establish a camel ranch and to attempt the breeding
 of the animals. His plans were interfered with by Secretary Davis,
 whose idea was to find out first whether or not the animals, in the
 language of his instructions, "were adapted to military service, and

could be economically and usefully employed therein," although he directed that they be given ample time to recover from their long voyage.

Some experimentation along this line was at once attempted. Major Wayne reported that, having removed his camp to Green Valley, 60 miles from San Antonio, he one day sent three 6-mule teams, with a wagon to each team, and 6 camels to San Antonio for a supply of oats. In going the camels were held back to accommodate themselves to the slower pace of the mules. Returning, the camels carried 3,648 pounds of oats, while the wagons brought 1,800 pounds each. Thus 3 camels were equal to 6 mules and a wagon, and, in addition, the camels came to camp in two and one-half days, while the mules were nearly five days in performing the journey.

One day at Indianola Major Wayne, who had been greatly annoyed by the skeptical attitude assumed by many persons throughout the country, and particularly by the jests of the unbelievers in the Texan town, thought to teach these latter a lesson. He brought up one of his finest pets, and, having caused it to kneel, ordered 2 bales of hay, weighing 31½ pounds each, placed upon it. The knowing by-standers were convinced that the animal could not rise with such a load, but they laughed in scorn when the Major ordered 2 more bales piled on, making an aggregate weight of 1,256 pounds. To the amazement of all, and to the utter confusion of the scoffers, the camel, at the word of command, easily rose and walked off with his burden. This signal victory for the camel partisans created no little talk, and the incident was chronicled in verse by a local Texas poet, though unhappily, says Major Wayne, when he made his report, "I have not at hand a copy of the paper in which the ode was published," and it thus failed of official immortality.

"On another occasion," to use the language of Secretary Davis in his annual report of December, 1856, "the capacity of the camel for traveling over steep acclivities and on muddy roads was tested with the most satisfactory result. Instead of making the détour rendered necessary by the location of the road to avoid a rugged mountain impracticable for wagons, the camels followed a trail which passed directly over it and, a heavy rain occurring while they were at the depot to which they had been sent for supplies, the road was rendered so muddy that it was considered impassable for loaded wagons. The train of camels were nevertheless loaded with an average of 323 pounds each and returned to their encampment, a distance of 60 miles, in two days, suffering, as it is reported, no interruption or unusual fatigue from the mud over which they passed or the torrents of rain which fell upon them. These tests fully realize the anticipations entertained of their usefulness in the transportation of military

supplies. The experiment of the United States has been conducted. Thus far the result is as favorable * * * The very individuals who procure them, and who have entire confidence both of their portation and their adaptation to the United States."

It should be noted that, as expressed by Major Wayne, to the Department, placed emphasis on the confidence between the camel and the former and pointing out that the camel requires more attention than the mule.

Something over \$20,000 of yet unexpended, and in June \$10,000 of this and directed to load of camels. The storeship on the return trip, she took on 6,000 gallons of oats, 10 barrels of powdered sulphur, and was commissioned Mr. Heap to go on ahead directly to San Antonio. When he arrived in November, he had secured a number of fine young animals. The ship at Constantinople, presented a bill for this shipment. On the whole, those procured on the first trip employed nine men and a boy along to help care for the animals. To employ some of these men, they were brought over on the first trip. One of them at least, Hiogo, a driver, interpreter, or mail carrier, charged, he filed a claim for freight, such as was due him under the contract.

Lieutenant Porter sailed for San Antonio meeting the roughest weather yet experienced. 3 camels on a voyage of eight days over to Major Wayne, at Indianola, all in fine condition. The next day, which was now officially designated as the time Wayne had lost 5 of his camels (in ease incident to acclimation),

fully employed therein," although he
ple time to recover from their long

his line was at once attempted. Major
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supplies. The experiment of introducing them into the climate of
the United States has been confined to the southern frontier of Texas.
Thus far the result is as favorable as the most sanguine could have
hoped * * * The very intelligent officer who was sent abroad to
procure them, and who has remained in charge of them, expresses
entire confidence both of their great value for the purposes of trans-
portation and their adaptation to the climate of a large portion of the
United States."

It should be noted that, in addition to this favorable opinion
expressed by Major Wayne, that "intelligent officer," in his letters
to the Department, placed especial stress on the comparison in use-
fulness between the camel and the mule, claiming superiority for
the former and pointing out that the camel required less food and no
more attention than the mule.

Something over \$20,000 of the sum appropriated by Congress was
yet unexpended, and in June Lieutenant Porter was furnished with
\$10,000 of this and directed to fetch home on the *Supply* another ship-
load of camels. The storeship then lay at New York, and, as food for
the return trip, she took on board 150 bales (about 20 tons) of hay,
6,000 gallons of oats, 10 barrels of beans, 500 gallons of barley, 50
pounds of powdered sulphur, and 50 pounds of lard. The Depart-
ment commissioned Mr. Heap at \$2,000 a year and expenses and sent
him on ahead directly to Smyrna, where, by the time that Porter
arrived in November, he had collected from the interior a shipment
of fine young animals. The Sultan of Turkey, through our minister
at Constantinople, presented 6 dromedaries, which were included in
this shipment. On the whole, this shipload was a much finer lot than
those procured on the first trip. At Smyrna Lieutenant Porter
employed nine men and a boy at \$15 a month each and brought them
along to help care for the animals. The Government continued to
employ some of these men, together with some of those who were
brought over on the first trip, for many years at \$10 to \$15 a month.
One of them at least, Hiogo Alli, remained in the service as camel
driver, interpreter, or mail carrier until 1870, when, on being dis-
charged, he filed a claim for further employment on the ground that
such was due him under the contract made in 1856.

Lieutenant Porter sailed for home November 14, and, although
meeting the roughest weather he had ever encountered, he lost but
3 camels on a voyage of eighty-eight days, and was able to turn
over to Major Wayne, at Indianola, February 10, 1857, 41 animals,
all in fine condition. The new animals were taken to Camp Verde,
which was now officially designated the camel station. Up to this
time Wayne had lost 5 of his first herd—2 by Spanish fever (a dis-
ease incident to acclimation), 1 by epilepsy, 1 from the bite of a par-

ticularly ferocious companion, and 1 from blows probably inflicted by a mule driver who did not take kindly to the foreign beasts. The second shipload thus raised the camel herd to 70 in number.

In February, 1857, the Senate directed the Secretary of War to furnish it with a report regarding his camel experiment. This report was submitted the same month, and is a well-written and comprehensive document comprising the letters of Lieutenant Porter and Major Wayne, together with the information they had obtained and the conclusions they had drawn.

About this time the administration of President Buchanan came in and with it John B. Floyd as Secretary of War. Major Wayne, who had thus far conducted the camel experiment so vigorously and efficiently, was now transferred to the office of the Quartermaster-General at Washington, and could not, of course, give his personal attention longer to the Government camels, though he continued his interest in them, and was honored with a first-class medal from the Société impériale zoologique d'acclimatation of Paris, for his successful introduction and acclimatization of camels into this country.

During the summer of 1857 the camels were used sparingly in carrying supplies and in short scouts. In the fall of that year Lieut. Edward Fitzgerald Beale, afterwards a brigadier-general, and also minister to Austria under President Grant, was employed to open a wagon road from Fort Defiance, N. Mex., to the eastern frontiers of California, and a part of the herd of camels was put at his disposal for this expedition. The journey occupied forty-eight days through an unexplored wilderness of forest and plain and desert, the Colorado River being reached October 18. Lieutenant Beale speaks in the most enthusiastic terms of the work performed by the camels on this arduous trip. He says that they saved the members of the expedition from many hardships, and excited the admiration of the whole party by their ability and willingness to perform the tasks set them. He started with the determination that the experiment should be most thorough, and subjected the camels to trials "which no other animals could possibly have endured." On the desert they carried the water for the mules; traversed stretches of country covered with the sharpest volcanic rock without injury to their feet; climbed with heavy packs over mountains where the unloaded mules found it difficult to go even with the assistance of the dismounted riders; and, to the surprise of all the party, plunged into rivers without hesitation and swam them with ease. The lieutenant concludes that he would rather have one of the camels for such work than four of the best of his mules. One of the men who had charge of the camels on this trip, writing home to the Richmond (Va.) Examiner, paints the same rosy picture of their entire docility and utility.

This and other favorable reports induced Secretary Floyd in his

annual report in December, 1857. "The entire adaptation of camels to the plains may now be taken as established, and had already proved its great value as a horse for all movements upon the plains. The value against the marauding Indians is also a great one. The expenses of the quartermaster's office are also reduced by their use. He recommended that Congress purchase of 1,000 camels." So far a wholesale purchase, however, a year afterwards, in December, 1858, the Secretary renewed his recom-

The experiments thus far made—an experiment which would constitute a most useful and economic method of transportation through the great desert and barren portions of the country. A supply of these animals would enable us to extend our protection to our frontiers and to all our Indian reservations without expending in any other way. As a means of transportation I recommend the purchase of a full supply to

But that body could not, as Secretary Floyd said in the same light as the Secretary, a purchase of camels for this purpose was still further confirmed in his report. He recommended camels, and reiterated his recommendation.

Secretary Floyd probably based his recommendation largely upon the reports of Lieutenant Beale on his trip of that officer from Texas through the wilderness, the Secretary's recommendation was in his hands to be employed by the Government on expeditions were made over a large territory, particularly in the Rocky Mountain region. During this time the camels were so well cared for by Lieutenant Beale that they were in good condition. Upon the inauguration of a new administration and the transfer of the Government quarters to the Government quarters in good condition. For the next few years others that had been brought over from the forts and military stations in charge appearing to be able to do the same. In 1862 Lieutenant Beale wrote to the Secretary and unfavorable conditions under which they were kept, stating that instead of any number of camels, 3 of the finest had died and the remainder, give bond for their lives, and to use them in further experiments.

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annual report in December, 1858, to make some interesting comments.
"The entire adaptation of camels," he says, "to military operations on
the plains may now be taken as demonstrated." The beast, to his mind,
had already proved its "great usefulness and superiority over the
horse for all movements upon the plains or deserts," it would be of great
value against the marauding Indians, and would materially reduce the
expenses of the quartermaster's department in furnishing transporta-
tion. He recommended that Congress at once "authorize the pur-
chase of 1,000 camels." So far was Congress from authorizing such
a wholesale purchase, however, that it did not appropriate a cent, and
a year afterwards, in December, 1859, the favorable reports continuing,
the Secretary renewed his recommendation. He said:

The experiments thus far made—and they are pretty full—demonstrate that camels
constitute a most useful and economic means of transportation for men and supplies
through the great desert and barren portions of our interior. * * * An abundant
supply of these animals would enable our Army to give greater and prompter pro-
tection to our frontiers and to all our interoceanic routes than three times their cost
expended in any other way. As a measure of economy I can not too strongly recom-
mend the purchase of a full supply to the consideration of Congress.

But that body could not, as so often happens, see the matter in the
same light as the Secretary, and did nothing toward loosening the
purse strings for this purpose. By December, 1860, the Secretary
was still further confirmed in his opinion of the good work of the
camels, and reiterated his recommendations of the two preceding years.

Secretary Floyd probably based his beliefs and recommendations
largely upon the reports of Lieutenant Beale, for, after the successful
trip of that officer from Texas to California to open a wagon road
through the wilderness, the Secretary had placed twenty of the camels
in his hands to be employed by him in national explorations. These
expeditions were made over a large part of the Southwest, more par-
ticularly in the Rocky Mountains, and extended over a period of four
years. During this time the animals rendered efficient service and
were so well cared for by Lieutenant Beale that in 1861, with the incom-
ing of a new administration and a new Secretary of War, he turned
over to the Government quartermaster in California a herd of 28, all
in good condition. For the next two years these 28, with several
others that had been brought on from Texas, were held at the various
ports and military stations in California, no one of the officers in
charge appearing to be able to find any work for them to do. In
1862 Lieutenant Beale wrote to Secretary Stanton describing the idle
and unfavorable conditions under which the animals were then kept,
stating that instead of any natural increase since he had returned
them, 3 of the finest had died, and proposing to take all of the
remainder, give bond for their safe return at any time demanded,
to use them in further exploration and in packing supplies across

the great basin. At this time, he states, they were "of no earthly use either to the Government or anyone else," and the expense of their maintenance was about \$500 a month. This proposition was rejected, and a year later a plan was set on foot by Deputy Quartermaster E. B. Babbitt, stationed at San Francisco, to employ the camels in carrying the mail between Fort Mohave, N. Mex., and New San Pedro (Wilmington), Cal. Objection was made to this plan by both Lieut. D. J. Williamson, commanding at the former place, and Capt. William G. Morris, at the latter, their reasons being based on statements entirely the reverse of those officially made by Major Wayne and Lieutenant Beale.

Acting on this unfavorable information, General Babbitt reported to the Department that for two years he had endeavored in vain to render the camels serviceable, and gave it as his conclusion that experience had proved "the inexpediency of substituting them for our native animals." At this time the animals in California numbered 35 in all, and were kept in the southern part of the State. The report of General Babbitt produced an order from the Department, on September 9, 1863, directing him to advertise and sell the camels at public auction. This was duly carried out, and the animals were purchased by Samuel McLaughlin, in whose care they had been for some time before.

It is probable that most of these camels found their way into menageries or zoological gardens. It has been supposed that some of them were taken to Nevada to be employed in packing salt from the deserts for use in silver extraction, but as the Nevada camels were of the two-humped kind, they probably came from a different source. In 1860 or 1861 a company was formed in San Francisco for the purpose of importing camels from Asia. They sent an agent to the high tablelands of Central Asia and procured about 20 Bactrian, or two-humped, camels, and from this herd came the 12 animals that were employed for some time in carrying salt from a marsh in Esmeralda County, Nev., to the Washoe silver mill, a distance of 200 miles. They performed this work satisfactorily, carrying, says Mr. L. Metral, of Virginia City, who packed them, an average of 600 pounds each, and traveling from 15 to 20 miles a day. The discovery of salt at a more accessible point deprived them of much of their occupation, although they remained in the vicinity of Virginia City for a number of years.

Professor Brewer, of Yale College, records that during a trip through the West, made about 1865, he saw a few of the animals near Virginia City. "Their backs," he says, "had not been cared for, and they had been used in packing heavy loads of salt from the deserts. Salt water and alkali had accumulated in the long hair of their humps,

their pack saddles had galled them, covering the parts touched by them with sweeping just then over this in beasts, having fallen into bad enough." As late as June 28 contained an account of an ascent of 8 camels, each carrying one, approached to within 150 feet of nearly 9,000 feet.

The historian H. H. Bancroft were all taken to Arizona, were placed on a ranch in the Carse 26. The story of the remarks spread far and wide, finding its work on *The Camel*, published pedias. It should, however, be remembered that the female years, and does not begin to breed until the animals are three years of age. Their appearance on thereby giving rise to suits for libel, and prohibition of their use on at large.

In the meantime the camels were sent on various errands to places over the country, and were seen on sight on the streets of several cities. In some instances they frightened horses, and thereupon the legislature passed an ordinance forbidding their use.

Thus they remained until the close of the war, when, naturally to some extent, they were abandoned to the climate and other conditions of the day by those who saw them in the menageries. At the beginning of the war they were turned into the hands of the Confederates, and attracted the attention, being allowed to pick up their own food. Finally, some of the animals were sent to Mr. Grayler, on a special account of at least 3. The Union forces and "sent to Mr. Iowa, for the benefit of his country." In June, 1863, Lieut. J. Grayler, commanding the Missouri, at St. Louis, should do with them; the Quar-

DUSTRY—20th REPORT.

ates, they were "of no earthly use
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e to this plan by both Lieut. D. J.
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being based on statements entirely
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their pack saddles had galled them, and great loathsome sores nearly covered the parts touched by the saddle. A pitiless snow squall was sweeping just then over this inhospitable region, and these miserable beasts, having fallen into bad hands in a bad climate, looked sadly enough." As late as June 28, 1876, the Virginia City Enterprise contained an account of an ascent of Mount Davidson made by a train of 8 camels, each carrying one-third of a cord of wood. The animals approached to within 150 feet of the summit, reaching an altitude of nearly 9,000 feet.

The historian H. H. Bancroft states that in 1876 the Nevada camels were all taken to Arizona, with the exception of one pair which, placed on a ranch in the Carson Valley, in a few years increased to 26. The story of the remarkable fecundity of this pair of camels spread far and wide, finding its way into Major Leonard's important work on *The Camel*, published in 1893, as well as into the encyclopedias. It should, however, be taken with great allowance, when it is remembered that the female camel gives birth but once in three years, and does not begin to breed until 5 years of age. The employment of the animals for practical purposes in Nevada steadily diminished. Their appearance on the public roads frightened horses, thereby giving rise to suits for damage, and leading finally to legislation prohibiting their use on the public highways and their running at large.

In the meantime the camels left at Camp Verde were employed in various errands to places over the State and became so common a sight on the streets of several towns that they ceased to excite curiosity. In some instances they were looked upon as a nuisance, because they frightened horses, and the city council of Brownsville is said to have passed an ordinance forbidding them the streets.

Thus they remained until the outbreak of the Civil War, increasing naturally to some extent, showing themselves well adapted to the climate and other conditions of Texas, and described in the papers of the day by those who saw them as healthy and strong, of greater stature and in all respects superior to the camels of the traveling menageries. At the beginning of the war the camel station passed into the hands of the Confederates, from whom the herd received scant attention, being allowed to pick up its own living by grazing. Naturally, some of the animals wandered away. Of these there is an official account of at least 3. These were captured in Arkansas by the Union forces and "sent to Mr. Paden, near the Des Moines River, in Iowa, for the benefit of his care and economy in their support." In June, 1863, Lieut. J. Grayler, from the headquarters of the Department of the Missouri, at St. Louis, asked the Department what he should do with them; the Quartermaster-General, on the ground that

the number was too small for use, recommended that they be sold at public auction, which action was accordingly ordered by Secretary Stanton.

Doubtless others of the herd during this period of loose discipline wandered off from Camp Verde and found their way westward to the deserts and mountains of the Texas Panhandle, of New Mexico and of Arizona, where they lived free and half wild, the prey of hunters both white and red. There are numerous recorded instances where soldiers or hunters have seen the animals and pursued them. These instances occur with decreasing frequency down to within the past ten years.

When at the close of the Civil War the Federal Government was again in charge of Camp Verde, all thought of making practical use of the camels was abandoned. The number was now 44, and in March, 1866, sealed proposals to buy them were invited. The bids were opened at New Orleans, at the office of the chief quartermaster, Col. E. G. Sawtelle. Three persons were willing to buy: Horace Bell offered \$5 each; Joseph Hallam, \$10 each; while Col. Bethel Coopwood's bid was \$31 each. Gen. M. C. Meigs, Quartermaster-General, at Washington, reluctantly gave the order to sell at \$31 each, expressing at the same time his belief that private enterprise would better develop the animal in this country and his regret that the experiment had failed.

The camels were delivered to Colonel Coopwood at San Antonio, Tex., and kept by him in that vicinity until December, 1866, when they were driven into Mexico. In January, 1867, 12 of them were sold to the proprietor of a "circus and caravan," and the remainder appear to have been, during the next fifteen years, disposed of in the same manner. As late as May, 1903, the Express, of San Antonio, speaks of having observed in one of the midway shows which had exhibited in that city a camel with the United States brand on it and the counterbrand of a subsequent purchaser. No doubt a search through the many menageries, traveling shows, and the zoological gardens of the country would reveal other survivors of the Government camels, although their number is likely to be few, as it is now more than thirty-five years since they passed from Government ownership, and the camel does not often, even with the best treatment, attain to more than 40 years.

Thus, after a checkered official life of eleven years, the camels passed finally into the hands of private owners. Of the two shiploads of animals, the Government retains nothing except the bones of one of the beasts, which stand in a case at the National Museum at Washington and perform the duty of illustrating to students the peculiar skeleton framework of the "ship of the desert," besides serving as a souvenir to those acquainted with the story of the attempt to transplant these ancient drudges from their homes in Africa and Asia to the Western

World. The camel in question, by one of its mates that had got mals were rutting and consequent that the combat was most fur resounding blows with their potent interfere. The bones of the Lieut. Sylvester Mowry to the

The most potent cause of the interruption by the Civil War. of the camels which were imported with sufficient money to breed was necessary, and had he been drivers with their management reason why they should not have country as they were and are in easily and quickly acclimatized tasks in the initial experiment remained with them. But few and they found in the mule drive their general use, a long course ing, was required. The beginning Wayne to the South, and during exposed to capture and recapture which had much time to devote railways between the East and which it was proposed to use been employed to advantage has siasm and information on the collect and care for the scattered to such numbers as might be of merely a useless expense to the sold; but, as in the case of a regretted that the trial of the carried to conclusive results.

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of eleven years, the camels passed es. Of the two shiploads of ani- g except the bones of one of the ational Museum at Washington to students the peculiar skeleton .," besides serving as a souvenir the attempt to transplant these Africa and Asia to the Western

World. The camel in question, while at Fort Tejon, Cal., was killed by one of its mates that had gotten loose during the night. The animals were rutting and consequently intractable. The soldiers relate that the combat was most furious, the beasts striking each other resounding blows with their ponderous feet, while the drivers dared not interfere. The bones of the defeated animal were forwarded by Lieut. Sylvester Mowry to the Smithsonian Institution.

The most potent cause of the failure of the camel experiment was its interruption by the Civil War. Had Major Wayne been left in control of the camels which were imported under his supervision, and supplied with sufficient money to breed and increase them, as he so well knew was necessary, and had he been free to familiarize the teamsters and drivers with their management, there appears to be no particular reason why they should not have been of as much use in parts of this country as they were and are in the countries of the East. They were easily and quickly acclimatized and they performed with success their tasks in the initial experiments; indeed, so long as Major Wayne remained with them. But few officers understood their management, and they found in the mule driver an inveterate enemy. To secure their general use, a long course of experimentation, as well as teaching, was required. The beginning of the Civil War removed Major Wayne to the South, and during the succeeding years the camels were exposed to capture and recapture by the contending forces, neither of which had much time to devote to experiment. The construction of railways between the East and West, of course, limited the field in which it was proposed to use the camels, but they might still have been employed to advantage had anyone been found with the enthusiasm and information on the subject possessed by Major Wayne to collect and care for the scattered remnants of the herd and increase it to such numbers as might be of some real use. In idleness they were merely a useless expense to the Government and were very properly sold; but, as in the case of any unfinished experiment, it is to be regretted that the trial of the camel in the Western world was not carried to conclusive results.