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IN SENATE.]

[SESSION 1855

REPORT OF THE COMMITTEE  
ON  
INTERNAL IMPROVEMENTS,  
ON THE USE OF  
CAMELS ON THE PLAINS.

MAY 30, 1855.

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[B. B. REDDING, STATE PRINTER

## REPORT

*Mr. President :*

The Committee on Internal Improvements, to whom was referred the memorial of Wm. Neale Walton on the subject of introducing camels and dromedaries into California, and employing them for transportation across the deserts intervening between California and the Eastern States.

Also, Senate bill No. 229, An Act to encourage immigration and to facilitate inter-oceanic communications, have had the same under consideration and ask leave to report as follows:

The object designed to be attained by the memorial and the bill, is one which eminently merits the fostering care of the Legislature. Although, to some minds, it may seem to be surrounded with such obstacles as to make it appear impracticable, yet this should not deter us from the attempt when we reflect that our most common and useful domestic animals, especially the horse and the ox, were not natives of this continent, but accompanied the colonists of Spain and England in their immigration. The Aztecs who had arrived at a high degree of luxury and civilization in Mexico, were strangers to the horse until they encountered it and dreaded it as a demi-god in their battles with Fernando Cortez.

There are two kinds of camel, the camel proper, which has two bunches, and is more extensively used in the desert steppes of Central Asia, between the Caspian Sea and China, and between latitude of 35° and 45° north latitude; and the dromedary camel, which has only one bunch, is more light and fleet than the other, and is in extensive use throughout Arabia, Syria, Persia, and the north of Africa.

Cuvier says the camel with two bunches succeeds best in humid soils; it is larger and stronger than the other. The camel with one bunch is most remarkable for its sobriety. The dromedary is properly a lighter variety and more fitted for expedition.

There is a great similarity between the physical formation of Central Asia, where the camel is used, and that of the interior of our own continent, from

the frontier of Arkansas to the Sierra Nevada. That part of Asia lies between the 35th and 45th degrees of north latitude.

There is also a great resemblance between the climate and topography of California and Syria, where the camel is successfully reared, and there is every reason to believe that we could rear them upon our southern ranches as easily as any other animal.

Should this fact be well tested, we might then procure our stock for breeding across the Pacific directly from India, Arabia or China.

The power possessed by the camel of long abstinence from drink, will render him invaluable in crossing our alkaline and arid deserts of Utah and New Mexico.

He also possesses another quality eminently valuable, which is thus described by Major C. H. Smith, of the British Army.

"The camel sees and hears well, but of all his senses that of smell is the most acute. By this beneficent provision when long deprived of water he will snuff the air and discover its presence at the distance of more than two miles, and disregarding all opposition, hasten to obtain it, stirring the water with his feet to a state of mud before he drinks. By this faculty of the camel whole caravans are sometimes saved from destruction; so that it is not only useful to himself, but of the most vital importance to those who share his dangers and fatigues."

At this late period of the session, your Committee will not dilate either upon the importance of encouraging the introduction of the camel, nor upon its natural history, uses and habits. The subject has been ably and fully treated by Mr. Gwinn Harris Heap, the journalist of Lieut. Beale's late expedition over the central route across our continent, and the Committee have appended to this report an extract from the appendix to that work, which extract they hope may be printed for circulation by Senators. It possesses the more value from the fact that Mr. Heap was for some years a resident of Tunis, in northern Africa, and is, therefore, practically familiar with the habits of the camel, and fully capable by his recent explorations of judging of its adaptation to the purposes of our interior travel.

Senators and others who desire more closely to investigate this subject are referred to Cuvier's Animal Kingdom, pages four and five, and thirty-seven to fifty, where will be found an interesting note by Major Charles Hamilton Smith, containing a fund of zoological, historical and practical information on this subject; also, to the article "Camel," in Lieber's Encyclopedia Americana, vol. 2.

In relation to the bill referred to the Committee, it has been deemed best to present a substitute, which is herewith submitted; the reasons for which will be explained verbally by the Chairman of the Committee, when the bill comes before the Senate for consideration.

All of which is respectfully submitted,

By order of the Committee.

S. DAY,

Chairman.

## APPENDIX TO REPORT.

## APPENDIX.

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(A.)

### MEMORIAL.

SACRAMENTO, April 23, 1855.

*To the Honorable the Legislature of California:*

The undersigned, for five years a resident of this State, begs respectfully to memorialize your honorable body on a subject of paramount importance to the present and future advancement of the State's best interest, prosperity and greatness, viz: the subject of inter-oceanic communication by land.

It is a conceded fact that California justly and proudly boasts that she contains within her domain, some of the brightest intelligences of the present age and generation, and in no relation of life, whether commercially, politically or intellectually, can she be surpassed by any community on the face of the globe, assimilating numerically with her in population.

Taking these propositions as axioms, your memorialist would respectfully represent that to apply these multiplied advantages to a practical benefit, is to encourage and foster every enterprise that will tend either immediately or prospectively to consummate the destiny clearly manifest to this "Empire of the Pacific," which, at no late day, will be and become the great emporium of the commercial world.

Your honorable body have wisely commenced the initiative step, in the appropriation of the State's funds for the construction of a road to our State's borders, and the General Government have, after much delay, appropriated money to extend that road across the continent; but these enterprises, liberally undertaken by a State and Nation, must necessarily occupy considerable time ere they are prosecuted to completion.

In view of these facts, and the urgent necessity of some immediate and practicable enterprise that will consummate and realize this great desideratum, your memorialist respectfully submits the following proposition, in the full confidence of your liberality, integrity and magnanimity, believing that the great good that

will accrue to our commerce, prosperity and advancement, will so forcibly present itself to your minds that a detailed advocacy would be superfluous.

The proposition is:

That the State Legislature of California, shall, by legislative act, donate in fee simple to the undersigned, all the right, title and interest of the State, in and to certain quarter sections of land (not to exceed five quarter sections) situate between the eastern boundary of the State and the Pacific coast, as stations for the encouragement of an overland immigration by means of camels and dromedaries. The undersigned purposes and agrees within twelve months from and after the passage of an Act embracing the above donation, to place trains of camels and dromedaries on a route from a point or station on the Atlantic coast to a point or station on the Pacific coast, for the purpose of expediting inter-oceanic communication in a speedy and secure manner.

Your memorialist would respectfully call the attention of your honorable body to the fact that an enterprise of this nature has been presented to the consideration of our National Legislature, and met with the most favorable reception. The Committee to whom the whole matter was referred, would have reported a most liberal appropriation from the National Treasury, to convey the mails across this continent by means of camels and dromedaries, did not some serious obstacles present themselves in our general Post Office law.

Your memorialist would inform your honorable body that a similar requisition to the above will be presented to the State Legislature of Texas, asking the same donation, not so much for the value of the lands donated, as to give an implied expression of opinion on this all important subject. The General Government will doubtless donate to the undersigned the necessary quarter sections (for stations) in the Territory of New Mexico.

From statistical facts, it is with pride your memorialist informs your honorable body that by donating this land, and thereby expressing an implied endorsement of the people of California to his enterprise, he will be enabled, by the aid of capital placed at his disposal for the prosecution of his project, within a very few months to place a train of dromedaries on the southern route, that will make the distance from Texas or New Orleans to the Gila River, thence to San Diego or Los Angeles, *in from eight to ten days*, an almost incredible short time, yet nevertheless true.

Your memorialist has it from unquestionable authority, that the dispatches are constantly forwarded from Cairo and Alexandria in Egypt, to Mecca in Arabia, a distance of near eight hundred miles, in four days, by one of these animals, thence to Aden, whose gulf forms its estuary in the Indian Ocean, a distance of near six hundred miles, in sixty hours. These facts are given to show the entire practicability of the enterprise.

So soon as this enterprise is commenced, the commercial and other intelligence from India and China, will be anticipated in our own and the European monetary and commercial world, *by at least twenty days*.

Your memorialist, in conclusion, relies on the vast importance of this subject as being a sufficient warranty in him asking this trifling donation of land, which, as before stated, he requires more as an implied expression of opinion than for the intrinsic value of the soil, and your memorialist will ever pray.

WILLIAM NEALE WALTON.

(B.)

### CAMELS, AS A SUBSTITUTE FOR HORSES, MULES, ETC.

During our journey across the continent, I took particular note of the country with reference to its adaptation to the use of camels and dromedaries, and to ascertain whether these animals might be introduced with advantage on our extensive plains.

Having, by a residence of many years in Asia and Africa, become well acquainted with their qualities and powers of endurance, I am now convinced that they would be of inestimable value in traversing the dry and barren regions between the Colorado and the Sierra Nevada; and I am glad to see that the Secretary of War has, in his late report to Congress, asked for an appropriation for the purpose of importing a certain number, in order to test their usefulness.

I will now state a few facts, which will show the valuable qualities that these animals possess, the manner in which they may be rendered serviceable, and the facility with which they might be domesticated on our continent.

In enumerating the qualities which render the camel and dromedary so well suited to our western waters, I will quote from several travellers, whose statements will corroborate my own:

#### 1. THEIR POWER TO ENDURE HUNGER AND THIRST.

Tavernier, the great Eastern traveller, states that his camels, in going from Aleppo to Ispahan, by the Great Desert, went nine days without drinking.

The French missionary, Huc, who travelled in Tartary, Thibet, &c., in the years 1844, '45, '46, gives some interesting information in relation to this animal.

Speaking of the Desert of Ortos, on the northern border of China, he says: "Everywhere the waters are brackish, the soil arid, and covered with saline effluences. This sterility is very injurious to cattle; the camel, however, whose robust and hardy nature adapts itself to the most barren regions, is a substitute with the Tartars for all other animals. The camel, which they with truth style 'the treasure of the desert,' can abstain from food and drink for fifteen days, and sometimes for a month. However poor the country, he always finds sufficient food to satisfy his hunger. In the most sterile plains, the herbs which other animals will not touch, and even bushes and dry wood, will serve him for food." In Barbary, they can remain five days without drinking during the summer when the heat is intolerable, and there is little or no herbage; but when there is grass, and particularly in spring, they require no water for three weeks.

## 2. THEIR STRENGTH, SPEED, AND ENDURANCE.

1855 No animal can compete with the camel for strength and endurance. The African traveller, Shaw, relates that on his journey to Mount Sinai, which was over a very hot and stony region, though each of his camels carried seven quintals (784 pounds), he travelled ten, and sometimes fifteen hours a day, at the rate of three miles an hour.

Another traveller (F. A. Neale, Eight Years in Syria) states: "The Turcoman camel, a much finer animal than the Syrian, will carry, equally poised, two bales, weighing together half a ton."

Huc remarks: "Although he costs so little to nourish, the camel can be properly appreciated in those countries only where he is in constant use. His ordinary load is from seven to eight hundred pounds, and with this burden he can travel about ten leagues a day."

In Barbary, they carry from 550 to 600 pounds, and travel forty miles a day.

## 3. THE LONGEVITY OF THE CAMEL.

The naturalist, Buffon, states that camels live from forty to fifty years. In Tunis, where I had daily opportunities of seeing them, they live fully fifty years. Mr. Huc says that they retain their vigor for many years, and if they are allowed a short period of rest in the spring, to pasture, they are of good service for fifty years.

The camel, therefore, possesses more useful qualities than any other animal subjected to the use of man. His strength is such that he can carry more than three mule loads, though he requires as little nourishment as the ass.

In Asia and Africa, the journeys of the caravans are often from two thousand to three thousand miles in length, during which they average from thirty to thirty-five miles a day.

They are remarkably docile and obedient to their masters; lie down to be loaded and unloaded; at night, sleep crouched in a circle around the encampment. They rarely stray away, nor are they, as mules, liable to be frightened; it would be difficult—nay, impossible—to stampede a caravan of camels. When turned out to pasture, they eat in an hour as much as serves them to ruminate the whole night, and to nourish them during twenty-four hours.

The female camel furnishes excellent milk longer than the cow, upon which the Arabs often subsist during their long journeys. Their hair, which is renewed annually, is more in request than the finest wool; the fleece weighs about ten pounds.

The dromedary possesses the same qualities as the camel, as regards abstemiousness, docility, &c., to which he adds much greater speed and endurance.

The dromedary is a much taller and finer-shaped animal than the camel. The Arabs assert that he can travel as far in one day as one of their best horses can in four. They are so hardy, that they travel in the desert for eight or ten days at the rate of from one hundred and twenty-five to one hundred and fifty miles per day, during which time they require very little food or water. I saw a party of Arabs, mounted on dromedaries, arrive in Tunis in four days from Tripoli, a distance of six hundred miles.

In these journeys, they do not bear heavy loads, but carry a man, with his arms and provisions, which are equivalent to about two hundred and fifty pounds.

General Yusuf, of the French army, travelled from Blidah, a town in the interior

of Algeria, to the city of Algiers, in a carriage drawn by dromedaries. Though these animals had a few days before made a journey from Medeah to Boghar, a distance of one hundred and eighty miles, in twenty-four hours, the General drove them at the rate of ten miles the hour.

Huc remarks: "Those that are employed to carry dispatches, are made to travel eighty leagues in a day; but they only carry a rider."

The same author observes: "When their fur is long, camels can endure the most severe frosts. Naturalists have stated that camels could not live in cold climates; they probably had reference to those of Arabia."

In Turkey in Europe, where the winters are very severe, camels are in common use at all seasons. They are also used in winter as well as summer, on the elevated steppes of Tartary, as far north as 50 degrees.