
SPEECH OF
THEODORE P. SHONTS,
Chairman of the Isthmian Canal Commission,
BEFORE
THE AMERICAN HARDWARE MANUFACTURERS' ASSOCIATION,
AT THE NEW WILLARD HOTEL, WASHINGTON, D. C.
On the Evening of November 9, 1905.

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*President Birge and members of the American
Hardware Manufacturers' Association:*

When I received Vice-President Lupton's invitation to come before your association and talk on the Panama Canal, I accepted it with pleasure because of the opportunity it afforded of talking to business men in a business way of what is a great business project. As I view it, the building of the Panama Canal is a ²business, not a political, proposition. I propose, in what I have to say to you, to talk as a practical man to practical men who are themselves engaged in large commercial enterprises, and who know from ex-

perience the difficulties to be met and the enormous amount of thought and labor involved in the inauguration of great undertakings in the United States. You will be able to appreciate, therefore, how every difficulty was aggravated in an enterprise of the magnitude of the Isthmian Canal, in which the preparatory work had to be carried on two thousand miles from the base of supplies. But this is not all: The work had to be done in a hostile climate and under health conditions which, through centuries of neglect of all sanitary principles, had become a menace to the lives of all persons save natives of the tropics.

In order, therefore, to make the Isthmus a place fit to live in and to work in, there were three fundamental tasks which had to be performed in advance of all others.

First. Thorough sanitation of the Isthmus.

Second. Providing suitable habitations for all classes of employees.

Third. Providing a system of food supply which would afford to all employees opportunity of obtaining wholesome food at reasonable cost.

1st. In regard to sanitation: When the United States began this work there were no systems of water works, of sewerage, or of

drainage on the Isthmus. The people depended largely on unprotected cisterns for their water supply, filled during the rainy season, and on barrels filled from neighboring streams, all breeding places for mosquitoes. The filth of ages had accumulated around the dwellings and in the streets undisturbed except when washed away by torrential rains. Pools of stagnant water had existed for years in proximity to dwellings and insect-breeding swamps lay undrained adjacent to the cities and many of the towns. Seventy per cent. of Panama is now supplied with pure mountain water, fed from a storage large enough to furnish sixty gallons per day to each inhabitant after its present population shall have increased one-half. Fifty per cent. of a complete modern sewerage system has been installed, and work on the remainder is being carried rapidly forward. The first million of brick for paving its streets are on the ground. The city has been fumigated time and again, first house by house, to stop the spread of disease, and again as a unit, that is, the entire city at one time. A large force is just finishing a thorough cleaning of the city—the first scrubbing it has had during its centuries of existence; and Governor Magoon, under whose

jurisdiction all this work has been so successfully accomplished, is arranging to raze many of the worst shacks and replace them with modern sanitary buildings. Within a year it may confidently be predicted, Panama will be a city well watered, well sewered, well paved, and clean and healthy.

What has been done for Panama is being done for Colon and every important labor camp across the Isthmus. Work on Colon's water reservoir is well under way, and temporary measures are being employed to safeguard the city's health pending the report of a Board appointed to recommend plans for permanent improvements. An abundant supply of pure water from mountain springs has been provided at Culebra and at other important labor centers along the line of the canal, and adequate drainage is being installed in them also.

Four thousand one hundred men are now employed in these sanitary undertakings. So effective has been the work that yellow fever has been virtually extirpated from the Isthmus. In June last there were 62 cases of yellow fever there; in July, 42; in August, 27; in September, 6, and in October, the worst month of the year for yellow fever, 3—no one of the latter among the employees, and all originating many miles

from the line of the canal. In regard to general health conditions, I was told, when on the Isthmus in October, that there were over a hundred less patients in Ancon Hospital than there had been for many months, although we had brought in 4,000 additional laborers during the previous two months, and it was from the new arrivals that the hospitals were usually recruited.

To fully understand what has been accomplished by our sanitary work it is only necessary to compare the present rate of sickness with that which prevailed on the Isthmus when the French were in possession. In August, 1882, the second year of the French occupancy, with a force of 1,900 men, the death rate was 112 per 1,000. In August, 1905, with a force of 12,000 men, there were only 8 deaths, or two-thirds of a man per 1,000.

If we have not, as our critics complain, made "the dirt fly," we have made the filth fly, and we have made yellow fever, that supreme terror of the tropics, fly so far from the Isthmus that it will never, let us hope, find its way back again.

We have established a hospital system which includes a large hospital at Colon and another at Ancon, and a number of smaller hospitals at convenient points along the line. The one at

Colon is built on piers over the Atlantic Ocean, and patients there have at all times the benefit of cool and invigorating sea air. That at Ancon is one of the largest and best equipped in the world, situated on the hill above Panama and commanding a superb view of mountains and sea.

The management and service of the hospitals are on a par with the natural advantages and beauty of location. Colonel Gorgas, who is in direct charge of hospitals, has organized a staff of doctors and nurses for which it would be difficult to find a superior anywhere. Mr. Isham Randolph, one of the members of the Consulting Board of Engineers who recently visited the Isthmus, said, in a letter published on his return: "The hospitals are a source of just pride to our people. If sickness could ever be regarded as a boon, it may be so thought of in Ancon and Colon." No less emphatic testimony comes from Mr. D. M. Hazlett, who speaks from personal experience as a patient in Ancon Hospital. Writing in the "Panama Mail," he says: "The medical staff and corps of trained nurses are beyond criticism. No expense has been spared in providing the various wards with all the conveniences which science and experience can command. There is probably no institution in the world where patients receive better treatment

or more faithful service than in Ancon Hospital.”

2d. In regard to providing quarters for the employees. The commission inherited from the French Company more than 2,100 buildings, all in bad condition. During the past year, 649 of them have been repaired, 58 new buildings have been erected, and 67 more are in course of construction; two new hotels, three stories high and containing from 55 to 60 rooms each, have been completed, and authority has been granted for eight others, a portion of which are under construction at the present time. Work is in progress also on cottages for married employees and on bachelor quarters. In this work of construction 2,400 men are employed, and additional carpenters are being sent out with every steamer. This work is being pressed forward with the utmost vigor.

3d. In regard to food supplies. This was the most serious problem that confronted us. If we couldn't feed the men, we couldn't build the canal. Owing to the fact that the natives never look beyond their present necessities, no surplus food supply ever accumulates. This normal condition of no surplus was greatly intensified by the almost total failure of the crops for the two preceding years, by the abandonment by agri-

cultural laborers of their farms back in the hills for work on the canal, where they received higher pay for shorter hours, and by quarantine against the port of Panama on account of bubonic plague, which prevented the arrival of food stuff from neighboring provinces.

We were thus brought face to face with the problem of feeding twelve thousand (12,000) men, with base of supplies 2,000 miles away.

We immediately arranged to open local commissary stores at every important labor camp, to provide mess houses, and to furnish food, both cooked and uncooked, to all employees at cost. We cabled orders to have our steamers equipped with refrigerating plants; we arranged for the erection of a temporary cold storage plant at Colon; and we purchased refrigerator cars for immediate shipment to the Isthmus, thus establishing a line of refrigeration from the markets of the United States to the commissary stations of the Isthmus. We also purchased from individual lessees the equipment in existing hotels and assumed their management ourselves. The net result of these efforts is that to-day we are affording to all employees opportunity to obtain an abundant supply of wholesome food, cooked and uncooked, at reasonable prices. The silver men—by which I mean the common laborers—

are being fed for 30 cents per day, and the gold employees—by which I mean those of the higher class—at 90 cents per day, and it is good food in place of bad. There may be dispute about the blessing of tainted money, but there can be none about the curse of tainted food.

But in addition to these fundamental tasks of improving the health conditions on the Isthmus and providing for the physical comfort and well being of all classes of employees, another essential preliminary to actual canal building has been receiving our earnest attention. I refer to the enlargement and improvement of our facilities for receiving and distributing the immense quantities of materials and supplies which will enter into the construction of the canal, as well as into the work referred to. The only really valuable instrument essential to canal building acquired by our government in its purchase from the French was the Panama Railroad. But this instrument, like all the others whose wrecks cover the Isthmus, had been neglected and its equipment allowed to become obsolete. If the docks, wharves, warehouses, terminal yards, locomotives and cars of the Panama Railroad had been in good repair, which they were not, they still would have been entirely inadequate

to properly care for and handle the small commercial business the road was transacting. The existing facilities, poor as they were, were rendered less efficient by the entire absence of any mechanical appliances on the docks to assist in receiving or discharging the steamers' cargoes. The negro laborer was the only power employed; he was at once the only hoisting machine and the only traveling crane in use. Imagine, then, the congestion which necessarily ensued when the accumulated orders in the States began to arrive in large quantities on both sides of the Isthmus. To aggravate the situation, while the deluge of arriving material was at its height, the commercial business of the road increased nearly 50 per cent. over the year before; and at the moment when we thought affairs could get no worse, two cases of bubonic plague at La Boca resulted in two consecutive quarantines at that place, completely tying up that outlet for 60 days. Furthermore, the personnel of the Panama Railroad as acquired had not been educated on modern lines, and therefore was completely paralyzed when confronted with the onerous conditions caused by this congestion. It was necessary, consequently, to begin at once the construction of new wharves equipped with

modern mechanical appliances, and of large terminal yards at both ends of the road; of extensive warehouses; of suitable machine shops, and of a modern coal hoisting plant, which will reduce the cost of handling coal from ship to engines from \$1.30 to about 12 cents per ton.

We have also purchased new and more powerful locomotives, larger cars for both passenger and freight services, and heavy steel rails for relaying the road, and have strengthened the bridges to enable them to carry the heavier equipment. We have reorganized the personnel of the road, putting into the higher positions experienced, aggressive, up-to-date men, with the result that with the old equipment and facilities they have cleared up during the last thirty days an accumulation of over 12,000 tons of commercial freight. With the advent of our increased dock facilities, terminal yards now nearly complete, and new power and equipment now arriving, the road will be in a position to handle efficiently and economically a vastly larger volume of business than heretofore.

While all this necessary work was in progress, the task of purchasing, forwarding and distributing the enormous quantity of materials and supplies of all kinds was receiving our constant and most careful attention. The purchases included not only the

items entering into the permanent plant, but also those required for the preliminary work. To give you an idea of the magnitude of these purchases I will read for you the principal items:

- 61 Steam Shovels.
- 1,300 Flat Cars.
- 12 Rapid Unloaders.
- 22 Unloading Plows.
- 13 Earth Spreaders.
- 324 Dump Cars.
- 12 Hoisting Engines.
- 120 Locomotives.
- 5,000 tons of Steel Rails.
- 125,000 Cross Ties.
- 12,000 pieces of Piling.
- 14 Air Compressing Machines.
- 3 Cranes.
- 152 Rock Drills.
- 30,000,000 ft. Lumber (approximately).
- 2 Dipper Dredges.
- 646,000 lbs. Blasting Powder.
- 617,500 lbs. Dynamite.
- 7,000,000 Paving Brick.
- 3,500,000 Building Brick.
- 500,000 sq. ft. Roofing Tile.
- 36,000 bbls. Cement (approximately).
- 3 Steel Water Tanks and Towers.
- 12 Stand Pipes.
- 2 Ocean Steamships.

The approximate total cost of our purchases was

about \$9,000,000. It should be borne in mind that at the time when orders for most of these items were placed, the industries of the United States were crowded with domestic business, and were unable, consequently, to make prompt deliveries. It should be borne in mind, also, that after machinery had been manufactured here and set up, it had to be taken apart, shipped two thousand miles over steamship lines already taxed to their full capacity, and on arrival on the Isthmus had to be again set up before ready for use. Then, too, on account of many reports as to the prevalence of yellow fever on the Isthmus, it was very difficult at a critical time for concerns furnishing material to get steamers to take it there, because of fear that their crews might become infected and their vessels might be quarantined when they wished to return to the United States. Finally, the steamers of the United Fruit Line from New Orleans, which had been carrying a considerable amount of the freight going to the Isthmus, were put out of service on account of yellow fever in that city.

To the various causes of delay mentioned is to be added the requirements of law that all bids for materials used in government work shall be advertised for. This compels a delay in all cases of from ten to thirty days.

Furthermore, in addition to the purchases for the canal, the following have been ordered for the Panama Railroad:

- 500 Box Cars—40 ton.
- 12 Caboose Cars.
- 10 Refrigerator Cars.
- 6 Passenger Coaches.
- 24 Locomotives.
- 2 Wrecking Cranes.
- 1 Locomotive Crane.
- 1 Pile Driver.
- 3 Track Scales—100 ton.
- 1 Modern Coal Hoisting Plant.
- 1 Cantilever Crane for Coal Hoisting Plant.

In regard to all equipment purchases, both for the Canal and the Railroad, it should be stated that the gauge of the Panama Railroad being wider than the standard gauge in the United States made it impossible to use second-hand rolling stock of any kind; all locomotives and cars had, therefore, to be built to order. After the supplies reached the Isthmus we had to contend not only with the lack of terminal facilities and mechanical appliances already mentioned, but also with an inadequate equipment with which to distribute it to its destination or the force to handle it. These obstacles have been largely surmounted. The elimination of yellow fever and the

establishment of better systems of housing and feeding the employees have enabled us to recruit our working forces till those assigned to the material and supply division now number over twenty-one hundred men.

I have so far, gentlemen, endeavored to give you an idea of the difficulties which we have had to encounter and overcome in order to make the Isthmus a place fit to work in, and to collect the tools with which to work. So far as actual excavation and dredging are concerned, we have not endeavored to accomplish much. As a general principle, in which I think you will all concur, it is inadvisable to attempt to run a railroad before the tracks are laid. We are now working, however, six steam shovels in Culebra cut, which is the largest single factor in the construction of the Canal, and have removed approximately one million cubic yards of material. By this work we are accomplishing two things: First, we are putting the levels of the cut in proper condition for the installation of the largest number of machines which can be effectively operated; and, second, we are gathering data which will be useful in future estimates of the cost of canal construction. In the Culebra work 2,600 men are now employed. We are also building railway tracks and yards, and are dredging at both ends of the canal, so far as ad-

visible until the question of type of canal is decided. This should be determined within the next ninety days. It should be understood that all the work we have done is applicable to any type of canal.

The question of labor is a grave and perplexing one. We have advanced far enough to know that we can secure a sufficient supply of labor from the tropics, so far as numbers are concerned. The question of quality is a very different matter. Unless a much greater efficiency can be developed than is secured at present, we shall have to look elsewhere. Probably I can best convey to you a just estimate of the quality of this labor by relating an incident which came under the observation of Senator Millard during his visit on the Isthmus: Sitting on the deck of the steamer "Havana," he was watching the unloading of a heavy piece of machinery from the hold of the vessel. The tackle got caught in the rigging on the deck above; the foreman in charge of the gang of laborers sent one of them above to free the tackle. The laborer went to the place to which he was sent, and did what he was told to do. The foreman, paying no attention to him after he started on his errand, missed him a few minutes later, and, looking around for him, discovered him sitting peacefully at the spot to which he had been sent. "What are you doing there?" yelled the fore-

man. "You told me to come here, Sah." "Well, why didn't you come back?" "You didn't tell me to, Sah."

It is to this class of labor that we are paying from 80 cents to \$1.04 per day in gold, and out of which it is estimated we do not get more than 25 per cent. of the efficiency of labor in the United States. This is the kind of labor to which we are compelled to apply the eight-hour law—that is, to aliens who know nothing of the law's existence until they arrive on the Isthmus. Such application will increase the labor cost of canal construction at least 25 per cent., and will add many millions unnecessarily to the total expenditure. **In my opinion it is a mistake to handicap the construction of the Panama Canal by any laws save those of police and sanitation.** I want to go on record here that the application of the eight-hour law, of the contract labor law, of the Chinese Exclusion Act, or of any other law passed, or to be passed, by Congress for the benefit of American labor at home, to labor on the Isthmus, is a serious error. Over 80 per cent. of the employees of the Canal will be aliens. A majority of the other 20 per cent. employed will be in a clerical or supervisory capacity. The application of these laws on the Isthmus will benefit a very small number of American laborers, but will enormously add to the

cost of construction, and American labor at home will have to pay its share of the consequent increase in taxation. As business men, you will understand the force of this statement.

That is the story, gentlemen, of what we have been doing on the Isthmus. In line with this, let me add that Chief Engineer Stevens, a man well equipped for the great task he has undertaken, is preparing three complete sets of plans applicable to as many types of canal, so that when decision shall have been reached as to what type will be used, no delay in beginning work will ensue. It is our confident belief that by the first of July next the plant as purchased will be installed and working to its fullest practical capacity. In other words, by that time the dirt will begin to fly in earnest.

The canal will be built—rest assured of that—and it will be built at Panama. Those two phases of the problem have passed irrevocably from the field of debate. There is an industrious and voluble band of hired Ananiases moving to and fro in the land whose mission it is to deny this. The burden of their song is: “The canal will never be built at Panama, and everybody connected with the enterprise, including the President, and Commissioners, and Engineers, is convinced of it.” You can hear the members of this band chanting their

song, to the accompaniment of their lyres, singly and in chorus, wherever men congregate, and wherever a few reporters are gathered together. They are rehearsing for their grand burst of noise when Congress shall have assembled. When they are not rehearsing they are putting the words of their song into bogus interviews and other written forms of newspaper publication, which they are sending forth by thousands from their Bureaus of Publicity in this and other cities. As one contemplates the output of this singular industry, this factory of fiction, he is moved to say of its guiding spirit, as Shakespeare says of Captain Dumain: "He will lie with such volubility, sir, that you would think truth were a fool."

Who is capitalizing this industry? What is the bountiful source of this spouting spring of mendacity? Is it to be found among the friends of an Isthmian Canal? Are these supplying funds for the sustenance of such a campaign of misinformation? What interests, except those foolishly dreading the competition of an Isthmian Canal, would put up money to delay and possibly defeat its construction? That there are interests of that kind is not a matter of suspicion or speculation, but of history. They have been fighting a canal for more than half a century, and they fought it successfully

till Theodore Roosevelt, armed with his "big stick," appeared as its champion. From that moment their efforts have been powerless, but they have not yet discovered the fact. They are wasting their energies and their cash, for behind Theodore Roosevelt stand the American people in solid mass and with determined front, shouting as one man: "Give us a canal that will be adequate to meet the demands of the commerce of the world, and give it to us at the earliest possible moment." That, gentlemen, is the command which the Commission, under the inspiring lead of the President, is obeying to the letter. We are building the "Roosevelt Canal."