

THE CHINESE CANALS.

The National Geographic Magazine devotes nearly the whole of its October 1912 number to the canals and art treasures of China, illustrating them by eighty-five excellent photographs. The canal system

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is truly wonderful. We Americans are apt to look upon the Panama canal as the greatest engineering feat ever accomplished. We are told by the Scientific American of November 9th, that if the material excavated at Panama had been taken from the United States, it might have made a canal ten feet deep and fifty-five feet wide, and reaching across the continent from Boston to San Francisco. And yet, this Panama canal, large as it is, is a mere pigmy in comparison with the canal system of China, Korea and Japan. If this were transferred to the United States, it would be equal in length to forty canals running from the Atlantic to the Pacific, and sixty from our northern to our southern boundary.

Of course, the Chinese canals were not built in a few years, nor even in one century; they are the result of the persevering work of many centuries. Their existence and maintenance are proof of a public spirit, of which any nation may be proud, and they show that Chinese statesmanship was of the highest order.

While the chief purpose of the canals was to serve as avenues of travel and of transportation throughout the empire, they were productive of still more vital results by means of the irrigation they caused. They not only rendered the land fertile by supplying it with abundant water, but they also kept up its fertility for all time by the rich loam and vegetable soil that they furnished. The mud dug out of the canals by Chinese farmers, was spread by them over the fields and thus rendered them absolutely inexhaustible. So rich has the land become in the agricultural sense, that an acre furnishes sustenance enough to support six persons for a year. This is the reason that China is so densely populated, and that artificial fertilizers, upon which other nations are so dependent, are altogether unnecessary.

The Mississippi river is carrying out into the Gulf every year as much fertile sediment as would cover three hundred and fifty square miles to the depth of a foot. All this is at present an absolute and irrecoverable waste. How much land would this mud render fertile! How many marshes would it convert into the best farm lands! We must admit that China has displayed greater foresight and made better use of its rivers.

The sewage problem which is forcing itself more and more upon our careful consideration has long ago been solved in China, where all this refuse is returned to the land and serves as the most efficient fertilizer. In addition to the two main purposes just mentioned, transportation and fertilization, the Chinese canals tap the large rivers and divert their swollen water in the times of floods to safer and more numerous outlets. While the rivers are not yet fully subjugated and still cause great damage at times, the evil is far less than it might be, and shows that in principle the system employed is the correct one.

The article entitled "A Shadow in Court—The Sequel," which appeared in the Scientific American July 20th of this year, has been translated into French and published in the Photo Magazine and Photo Revue of Paris, France, on November 17th.
