

wires of the character named, worked to their highest capacity, would carry all the letters now exchanged between New York and Chicago, provided their average length is not more than 50 words, and all the messages handled by the telegraph companies as well. A car travels 40 miles an hour, a current 200,000 miles a second. The automatic chemical telegraph will send a message of 16 words from New York to Chicago every second, and 50 words—about the average of a business letter—in three seconds. If time be reckoned as the basis of value for correspondence, which will appeal most to the business man,—a letter occupying 24 hours in covering 1,000 miles for two cents, or a telegram going the same distance in three seconds for 15 cents? Would not a very large proportion of business communications warrant the extra 13 cents? Could a man using the train mails compete in business with another using the telegraph? Not any more than a man traveling by canal could rival another going by the limited express.—*The Engineering Magazine*.

REVIEW QUESTIONS.—How is commerce between distant nations generally carried on? Which class of vessels is more dependent upon winds? What sometimes prevents a sailing vessel from making a direct course? Where is the region of trade winds? Why so called? In what direction do they blow? Are they *east* or *west* winds? What are monsoons?

What is the direction of the winds of the Temperate Zone? Of the Torrid? Which blow more steadily?

Voyages from the Atlantic Ports of United States to Europe. What zone? What winds?

Voyages from Atlantic Ports of United States and Europe to Asia and Australia. Through what belt of winds must the ship first pass? What belt

follows? What belt south of the trade winds?

Suppose a vessel, bound from Portland, Maine, to Calcutta arrives in the Indian Ocean in December, will she find the monsoons favorable or unfavorable? If she goes from Calcutta to Cape Town, in what months will she make the quickest passage? *Popular Educator*.

CITY GOVERNMENT.—The Corporation of the City of London is one of the most ancient bodies in England, and its record shows a constant succession of capable men and a uniform policy. It was in existence before Parliament, and it has seen the downfall of more than one royal house. The secret of its success has lain in the fact that municipal dignity has always been confided to the hands of men of business, who had shown their capacity to manage private affairs of great magnitude before they were intrusted with those of their neighbors. Their training had been such as to remove them as far from the hide-bound conservatism of the official as from the destructive reforming energy of the professional politician. As an instance of the methods employed may be cited the fact that perfect and exact records, with the exception of three years, of every penny spent on London Bridge, since 1831, are in existence and in splendid preservation. These facts, which we take from *Engineering*, differ so extremely from those brought to light by the recent reform investigations in American cities as to seem worthy of notice.—*The Popular Science Monthly*.

It is a high, solemn, almost awful thought for every individual man that his earthly influence, which has had a commencement, will never, through all ages, were he the very meanest of us, have an end!—*Carlyle*.