

speed of 25 knots an hour, which is by far the largest step in advance which has yet been taken, and which will consequently require a very great increase in power. If the vessel were made an express boat, it would require to have engines indicating at least 25,000 horse-power, while, if it carry the usual amount of cargo for a first-class passenger ship, it will require about 5,000 horse-power more. The proper policy, in our opinion, to pursue in this matter is for shipowners to give up the idea of carrying cargo in these boats, so that they may be able to start on the return voyage after having sufficient time to coal and take in new passengers, but without the delay attendant on taking in cargo. The cost of such vessels would be very great, and, in order that they may be commercially successful, time must be economised to the very greatest extent possible. With regard to the construction of the hull and the engines, it is probable that there would not be much variation from those at present in use, although weight would be economised as much as possible, both in the design and by the greater use of alloys. From the paper read recently by Mr. Biles before the Institution of Naval Architects, we learn that American shipbuilders and engineers have made great progress during late years, but we doubt if they are able to construct successfully such ships as we have been considering. To say the least, it would be a very risky experiment. The lead must, in any case, be taken by the managers of the British yards, and, having regard to recent progress we look forward with confidence to the near future, in the expectation of seeing vessels which will be capable of making the Atlantic passage in five days.—*Industries*.

A POSTAGE STAMP IN THE SLIT.

Facts are stranger than fiction, as has been illustrated many times. It is a fact, which went the rounds of the papers, some years since, that a country girl on her arrival in London forthwith wrote a letter home, to inform her anxious parents of her safety in Modern Bablyon. She proceeded along High Holborn, in search of the West Central branch post-office, as she had been directed. She noticed another girl dropping some letters into a pillar letter box, on the way, and when the new arrival reached the spot, the other girl having ran off after dropping in the letters, she examined the receptacle for the letters. Surely enough, she noticed that letters would be collected from there at short intervals, then she reasoned that it was useless to proceed farther in quest of the post-office to which she had been directed, and forthwith she put her mouth to the letter slot and called out, "A stamp, please." The request was repeated, but no response came from the inside. Presently a policeman approached, to investigate. He took in the situation at once, and instead of explaining her mistake to the lass from the country, he "let on" that he had come in response to her call, and sold her a stamp, which he happened to have in his pocket.

That was a good joke. Now, however, what that girl imagined is about to become an accomplished fact, if the following statement in the "mechanics"

column of a recent issue of *Invention* is strictly correct. Our British contemporary says:

The Postmaster-General has given permission for an experiment to determine whether postage stamps can be supplied to the public by means of an automatic machine attached to the ordinary pillar boxes. The Stamp Distribution Syndicate, Limited, of Mansion House Chambers, Queen Victoria street, have brought out an instrument, constructed partly on the principle of the automatic machines with slots for pennies now so familiar in the streets, with which they hope to meet a very general need. In appearance their machine resembles an ordinary small sweet-meat machine, stands about 18 in. high, and is a few inches square. It can be fastened to a pillar box without difficulty. A person desiring to purchase a penny postage stamp drops a penny into the slot at the front of the machine, a drawer at the bottom comes out, and the purchaser pushes it in again. At once a small white envelope comes out at the back, containing a memorandum book with a penny postage stamp with a small slit in the cover. That, in brief, is the machine. Naturally the question arises, will it answer? Can one be sure of getting a stamp for a penny, and can the stamp be obtained by tricks with zinc or iron discs? The directors of the syndicate claim to have overcome all these difficulties. They have adopted in their machine a principle by which absolutely nothing but a penny will permit the machine to work, and another by which, if the supply is exhausted, no one can put a penny into the machine. The principle was put thoroughly to the test on Wednesday at the post-office buildings, Mount Pleasant, by representatives of the press, with the most satisfactory results. The Postmaster-General has been so impressed by the machine and its utility that, as already said, he has given permission for a complete and practical trial, and forthwith the machines will be attached to about a dozen pillar boxes in London. Should the experiment be successful, machines will be attached to all the pillar boxes, and so it will become possible to buy a stamp at the pillar boxes at all hours of the day and night, Sunday included. It may be explained that the Postmaster-General concedes the use of the pillar boxes free for the benefit of the public and in respect to the more ready distribution of stamps, while the syndicate hope to recoup themselves out of advertisements to be interlarded in the pocket memorandum book bearing the stamp.—*American Engineer*.

THE SYSTEM OF MILITARY DOVECOTES IN EUROPE.

In the organization of the system of military dove-cotes, the locations of the stations are, almost all of them, decided upon in advance. It is a question, in fact, of connecting the fortresses of the frontier with each other and with a central station. There is generally no difficulty with fortresses that are almost always so near each other that ordinary pigeons can easily effect a passage from one to the other. The same is not the case with the central station, at least in great empires, such as Russia, Germany, etc. In this case it is necessary to establish relay stations between the frontier and the centre of the system.