

that the number of patents issued in Britain fully as large if not larger than any other country in the world.

Many people think it is not worth while to patent any but the great inventions that apparently have unlimited possibilities before them. This is a great mistake, for as a matter of fact it is notorious that more money is derived from some of these apparently insignificant inventions than from the great ones, from which so much was naturally expected. From an exchange we learn that a curious investigator has recently been collecting some astonishing facts, showing the immense profits derived by persons who have taken out patents on toys and other modest trifles. People will be surprised to hear for instance that the common wooden toy-ball, with elastic string attachment, selling for a few cents in the stores, brings its patentee an income of about \$50,000 each year. The man who first thought of perforating sheets of postage stamps so that they could be separated by tearing, instead of cutting as before, realized a fortune from his happy thought. The inventor of the gummed wrapper for newspapers is a wealthy man. The "dancing Jim Crow," the black toy with which all juveniles are familiar, yields \$75,000 annually to its inventor, and the ordinary needle-threader brings \$10,000 a year to its patentee. A piece of bent wire for suspending boots from the sides of packing cases was the lucky idea of a man who has since realized a fortune from it. The gimlet-pointed screw and the rubber tips to lead pencils yield independent fortunes to their inventors, while it is said of the son of the man who first patented copper toes for boots is as well provided for as if his father had left him \$2,000,000 in United States bonds. The patentee of roller skates is \$2,000,000 richer for his invention. Col. Green, who invented the "drive well," a simple arrangement for getting water by driving a two-inch tube into the ground until water is reached, and then adding a pump, has received royalty of \$8,000,000 at least, while rubber stamps, different kinds of pens, and other small articles have been equally fruitful sources of wealth to their inventors. The greatest inventors, on the other hand, like the greatest authors, have been but poorly rewarded for their work. The best motto for those who wish to be successful inventors is Schiller's saying: "That is the truly secret which lies ever open before us; and the least seen is that which the eye constantly sees."

### MONEY ORDERS.

Although our money order system is very much simpler than it formerly was, it has yet plenty of scope for improvement.

As at present made out an order is of no use until signed by the party for whom it is intended, and before it can be cashed or even deposited in a bank has to have an order endorsed on it by the Post Office department making it payable at any bank they specify. In Great Britain the money order system is a very simple one, is immediately understood, and is about as perfect as it is possible to make so important a matter. The person who desires to send a certain sum of money to another person in a different city or any other place where a money order office has been established, simply pays, at his own postoffice, the amount for which he obtains an order. This order has just the same value as a bank note for the amount which is written on its face. The cash is not transmitted from post-office to post-office—in this respect the systems in Great Britain and Canada are alike—but the order is made payable at any money order office to which it may be sent, and to any person to whom the buyer may subsequently choose to send it. In this country even the present simplified form of order requires a person of at least average intelligence and more than average experience to understand it, otherwise the clerk is obliged to tell every applicant for an order what he is obliged to write in each one of the dozen lines that have been ruled for his direction. By the English system this annoyance to the official and embarrassment to the applicant are avoided. The buyer simply pays twenty shillings for an order for one pound, and, renewing this certificate of payment, sends it to any one he may desire without giving the name of the intended recipient to the post-office officials. There is a slight risk that the order may fall into the wrong hands, but the possibility is far from being a probability. In any case there is always the opportunity of taking extra precautions whenever an order for a very large amount has been purchased with the object of sending it to persons at a distance.

But even this risk could be easily avoided by making the order payable to the person buying it or to his order in

exactly the same way as an ordinary bank check or draft. The buyer could then make it payable to the order of any person he pleased and then sign his name, after which it would be useful only to the person to whom it was endorsed. If it went astray after that it would be useless to the finder unless he chose to run the risk of penitentiary by forging the name of the party to whom it was endorsed.

We do not see why the post-office authorities could not make this or some other equally simple and effective improvement upon our present system of money orders. If they would do so it would be a great boon to merchants at small places having no bank, and as to the wholesalers to whom they remit their money.

### Selected Matter.

#### JOHN HARRISON, THE CHRONOMETER MAKER.

(Continued from last month.)

It may here be mentioned that it was comparatively easy to determine the latitude of a ship at sea every day when the sun was visible. The latitude—that is, the distance of any spot from the equator and the pole—might be found by a simple observation with the sextant. The altitude of the sun at noon is found, and by a short calculation the position of the ship may be ascertained.

The sextant, which is the instrument universally used at sea, was gradually evolved from similar instruments used from the earliest times. The object of these instruments has always been to find the angular distance between two bodies—that is to say, the angle of two straight lines which are drawn from those bodies to meet in the observer's eye. The simplest instrument of this kind may be well represented by a pair of compasses. If the hinge is held to the eye, one leg pointed to the distant horizon, and the other leg pointed to the sun, the two legs will be separated by a certain angle, which will be the angular distance of the sun from the horizon at the moment of observation.

Until the end of the seventeenth century the instrument used was of this simple kind. It was generally a large quadrant, with one or two bars moving