

## THE TYPEWRITER OF THE FUTURE

**B**y general consent the typewriter is the greatest labor-saving invention of the age, and the most appreciated. It is in use everywhere, not excepting the offices of the very men who might be supposed to regard it with the least favor—the pen manufacturers. It has been hailed as a “boon and a blessing to men” more generally than the most famous of the articles made by the last-named gentlemen. But its very popularity has blinded us as to what, when pointed out, is a glaring defect in the principle of its construction. We should explain here that we refer to the typewriters of the ordinary kind—the kind with which the business men of the country are most familiar. There are, of course, quite a number of different makes of these machines, but while they vary in the details of their construction, they have one feature in common, in accommodating the paper, and typing, upon a cylindrical roller or, as it is technically termed, platen. The roller was the least happy idea of the inventor, as were he now alive he would be the first to admit. It severely limited the machine's field of usefulness in two ways. In the first place it required that the writing material should be flexible and thin. In the second place it ignored an important factor in printing, by making the flat surface of the types work upon its own convex surface. This made for illegibility, although with a rubber roller the defectiveness of the principle is generally only realized when the machine is called upon to make a number of carbon duplicates. But the most regrettable fact about the roller is that it did not enable the machine to perform the universal task of writing in books.

It was an extraordinary mischance that the roller principle should have been adopted in preference to the flat-surface principle, when the advantages of the latter were so obvious. But since we have grown accustomed to the one, it is less astonishing to learn that the superiority of the other is only just beginning to be recognized. The new-style typewriter had its origin (like one or two other things), in America, where in the few years it has been on the market, it has been enormously successful, one company alone—the Pennsylvania Railroad Co.—having 2,500 in use. It was introduced into England only a short time since, but has at once jumped into the first rank.

The new typewriter is made in two styles: one, known as the Elliott machine, for general office-work, the other, known as the Fisher machine, specially designed for billing and order work, and for book-keeping generally.

The work the machine does is, at first sight, little short of marvellous. It will write a letter, make a loose carbon copy for vertical or flat filing and also make a carbon copy in a letter-book—all at one writing. It will write an invoice, a copy of it in a book, a shipping receipt, and as many as ten auxiliary records, with the envelope, all in one operation. It will write on index or post cards, on the pages of bound books, or loose sheets, regardless of shape, size, or thickness, at top speed. It will write on mimeograph stencil sheets without bending, creasing, or breaking. In short, wherever the pen will write the new machines will typewrite. The key to their capacity has already been indicated—they have a flat stationary writing surface, and the printing mechanism moves over it. They do not wind the paper round a cylinder. The page of the book, the packet of forms, the letter paper, or whatever else has to be typed, is simply laid upon the hard, flat table of the machine, the frame carrying the writing mechanism is dropped down, and the writing begins, the mechanism traveling across and down the surface.

By reason of its much greater field of operation the flat-writing machine has an immense advantage over all the machines on the roller principle, and it is undoubtedly the typewriter of the future. Take order and invoice work for instance. In the ordinary way copying the particulars of one transaction involved at least several, and sometimes 20 distinct transcriptions. The capacity of the Elliott-Fisher machines for duplicating work is such that the whole of the copies can be obtained in one operation, and all possibility of error in transcription vanishes. The various forms, interleaved with carbon sheets, are typed as one document. Should it be necessary to omit certain particulars, say prices, name and address, special notes, etc., from some of the forms in the batch, this is easily done by using forms of various sizes or by using different sized carbons. Sets of forms are, of course, designed to meet the special requirements of the system in use in the particular office. One set, for example, provides for the writing in one operation of the invoice, acknowledgment of order, advice of traveler, analysis copy, the order, several departmental orders, consignment note, despatch receipt, and sales sheet entry. The packets of forms are holed and fastened over studs on the bed of the machine, perfect registration being thus secured.

In book-keeping on the loose sheet method, which it is interesting to note is becoming very popular in this country, the Elliott-Fisher machines are able to render valuable assistance. But it is hardly possible in a newspaper article to enumerate the many purposes for which they are of service. One may appreciate them best for manifold work, another for their wax-stencil cutting ability, another for the admirable and clean way in which they type a letter and a copy in the letter book. Some of the machines are made to carry rolls of paper and transverse rolls of carbon. In others the platen is fitted with a belt of carbon, enabling a folded sheet to be typed and copied in a minimum of time, one large drapery house using 60 machines so fitted. The actual typewriting mechanism of the Elliott-Fisher machine leaves nothing to be desired. It is fitted with a double-color ribbon, a change being effected by the movement of a switch. It has the “universal” key-board, and it is a “visible writer.” Where the light is poor a small electric lamp is fitted to the machine, and this lights up automatically when the machine is in operation. The company have just introduced a machine corresponding in size to the ordinary standard typewriter, costing only a few shillings more than the latter, while anyone familiar with the ordinary machine can operate an “Elliott-Fisher” straight away.

The principle of a flat-writing surface and a moving writing mechanism permits of writing on any width of sheets, and one railway company actually writes six copies of a sheet three yards in width. In railway billing and way-billing the “Elliott-Fisher” machine is practically indispensable, and an enormous number of machines specially designed for this purpose are now in use in America. In Great Britain they are largely used by the London and North-Western, the Great Northern, Lancashire and Yorkshire, Great Western, and other railway companies; the Land Registry have 21 “Elliott-Fishers” in use, and the Savings Bank Department of the post office has been quick to see their advantages. The machines have also been installed at the Government houses at Hong Kong, Accra, and Singapore, by the Danish Government, by the Central South African