A. C. BARLOW & M. E. ROBERTS.

TYPE WRITER.

APPLICATION FILED MAY 18, 1918.

1,302,278.

Patented Apr. 29, 1919.

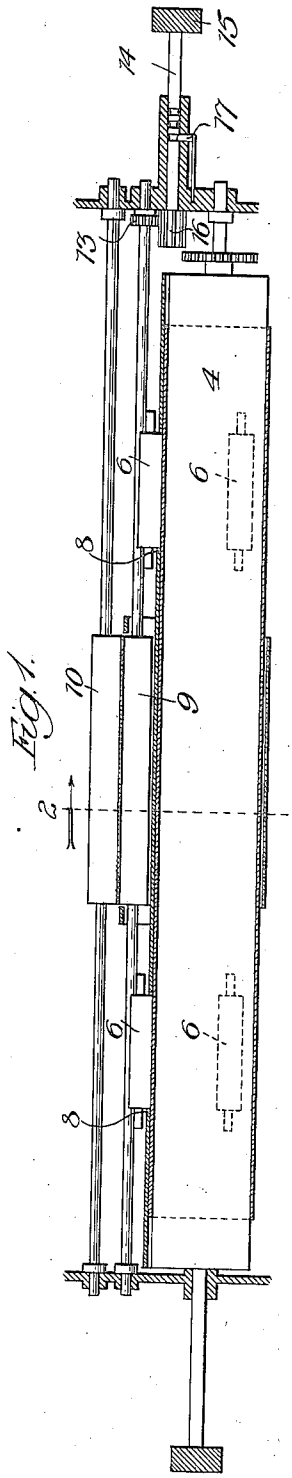


Fig. 1.

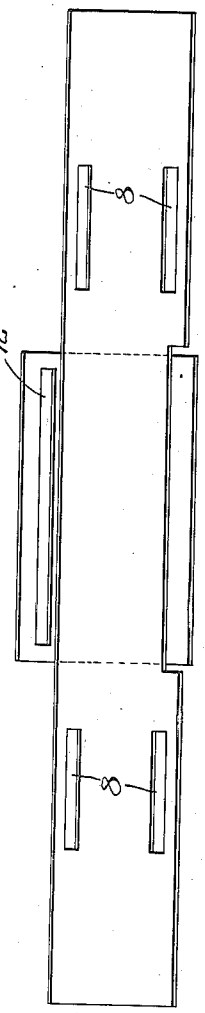


Fig. 2.

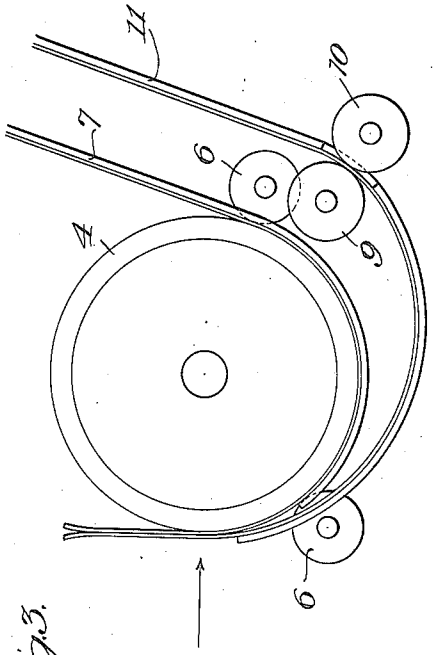


Fig. 3.

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UNITED STATES PATENT OFFICE.

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TYPE-WRITER.

1,302,278. Specification of Letters Patent. Patented Apr. 29, 1919.

Application filed May 16, 1918. Serial No. 235,267.

To all whom it may concern:

Be it known that we, AUGUSTUS C. BARLOW and MERRITT E. ROBERTS, citizens of the United States, residing at Chicago, in the county of Cook and State of Illinois, have invented a new and useful Improvement in Type-Writers, of which the following is a specification.

Our invention relates to certain new and useful improvements in typewriters and is fully described and explained in the specification shown in the accompanying drawings, in which—

Figure 1 is a horizontal section showing the platen and feed-roll as constructed in accordance with our invention; Fig. 2 is a plan of the sheet-metal deflectors employed; and Fig. 3 is a section on the line 3 of Fig. 1, showing the deflectors associated with the platen.

The object of our invention is to provide a typewriter employing the usual form of platen roll, with means whereby it may conveniently be employed in the ordinary bookkeeping operations. In these operations the typewriter is usually of a form having an adding attachment, but since this forms no part of our invention it is not illustrated. In the use of such typewriters in what is known as mechanical bookkeeping, each customer has a ledger page and also a monthly statement sheet of narrower width than the ledger page. It is necessary to place the ledger sheet and the statement sheet in such registry that the next blank line on each will be superimposed. The entry is made directly upon the statement sheet, and duplicated by carbon paper or an intermediate ribbon on the ledger sheet. In many cases there are successive entries made from day to day during the month on both sheets, which are kept together until the end of the month when the statement is sent to the customer, and it thus happens frequently that the ledger sheet is being written upon at the top, while the statement sheet is being written upon at the bottom, or vice versa. It is sometimes desired to make several entries in succession after the two sheets have been brought into proper registry with their upper blank lines superimposed, and in such cases it is desirable not only to register the sheets but to feed them forward in unison. In most cases, however, the entries for a given day are one-line entries, so that the prime necessity is to get the ledger sheet and statement sheet into proper registry, and with their upper blank lines in proper position on the typewriter to be struck by the keys, in the minimum time and with the minimum effort. It is peculiarly desirable to fit the standard form of typewriter with a cylindrical platen to this now very important work.

Referring to the drawings, 4 is the platen roll of our device. It is made of suitable width to carry the ledger page to be handled and differs in no essential respect from those commonly in use, except that instead of the usual knob at the end it is provided with a pinion 5, by which it may be driven. A series of idler-rolls 6 is provided, each bearing against the platen. This arrangement differs in no respect from what is common excepting that it is usual to space these feed-rolls along the entire length of the platen, whereas we omit these feed-rolls in the center to admit the narrower statement form. 7 is a deflector made of sheet-metal in the ordinary form, the same being cut out at 8 for the passage of the idler-rolls 6, and being curved underneath the platen and in quite close proximity thereto. This structure, also, is not essentially novel, the prime difference being that the main deflector 7 is cut back at its forward edge for a space about that occupied by the statement form.

Behind the platen-roll is a pair of statement feed-rolls 9 and 10, the feed-roll 9 being driven and the feed-roll 10 being an idler. 11 is an auxiliary deflector for the statement. It is placed back of the main deflector 7, and is slotted at 12 so that the feed-rolls 9 and 10 can meet through it and it is carried around underneath the platen roll, gradually approaching the same toward the front until at its forward edge it is very close to the platen.

The feed-roll 9 is driven by a pinion 13. 14 is an actuating shaft adapted to be rotated by a knob 15. On this shaft is a long pinion 16. The shaft 14 can be moved longitudinally through its bearing. When moved to the right the pinion 16 meshes only with the pinion 13. When moved to the left it meshes only with the pinion 5, whereas in intermediate position it meshes with both pinions. The shaft 14 is held in any of its three positions by any desired mechanism as by a spring-pressed, round-pointed pin 17, adapted to enter any of three grooves in the shaft 14.

In the most common use of our device, which is for making one-line entries, the problem is to establish proper registry between the two sheets and of the superimposed blank lines with the proper writing position on the typewriter as quickly as possible. To this end the statement sheet and ledger sheet are dropped into position on their proper deflectors one over the other, the shaft 14 being in mid-position. The knob 15 is then turned so that both sheets are fed in at the same speed. With the ordinary machine the upper part of both sheets will be visible to the operator, although the central part of the ledger sheet will be covered by the statement sheet. The operator can, however, see enough of both sheets to tell which is the first blank line from the top of either and when this sheet, whichever it may be, reaches the writing position, as indicated by the usual line-gage on the typewriter, the shaft 14 is shifted either to the right or left as the case may be, so as to cause the feed of the other sheet independently until its next blank line is brought into registry with the first and into position to be struck by the keys. If the ledger sheet comes to the proper position first the shaft is shifted to the right so that the statement sheet will be fed independently, whereas, if the statement sheet reaches the proper position first, the shaft is pushed to the left so that the ledger sheet may be fed independently. When both sheets are in proper position, the shaft is placed in mid-position and the usual typewriting operation is performed. If more than a one-line entry is to be made, the two sheets are fed together in an obvious manner.

While we have herein described a very common mode of use of typewriters in what is called mechanical bookkeeping and have spoken of a ledger sheet and a statement sheet, those skilled in the art will understand that precisely similar mechanical operations are desirable with other sheets than what might technically be called ledger and statement sheets, and it is not our intention by the terminology used to limit the use of the structure to do any particular bookkeeping operation.

We have here shown no means for regularly feeding the sheets because in this work hand-feeding is very common, and is frequently preferred because absolute registry can be obtained with successive ruled lines on either statement or ledger page. Of course, it will be understood that automatic means for feeding can be employed in connection with the present structure.

We realize that considerable variation is possible in the details of the construction herein shown, and we do not intend to limit ourselves thereto, except as pointed out in the following claims, in which it is our intention to claim all novelty inherent in the device as broadly as is permitted by the state of the art.

What we claim as new and desire to secure by Letters Patent is:

1. The combination with a cylindrical rotatable platen and rolls opposing parts thereof to feed a ledger sheet, leaving other parts free for the independent feed of a statement, of statement feed-rolls adapted to feed a statement sheet of less width than the platen in the direction generally parallel to that of the sheet carried by the platen, means for guiding the two sheets into position, one outside the other, when in the line on the platen to be struck by the type of the typewriter and means, for at will, rotating the platen and the statement feed-rolls each independently of the other or together in unison in similar directions.

2. The combination with a cylindrical rotatable platen and rolls opposing the ends thereof to feed a ledger sheet by its edges, leaving the center of the platen free of rolls so that a statement sheet may be fed centrally outside the platen, of statement feed-rolls adapted to feed a statement sheet of narrower width than the platen in a central position and in a direction generally parallel to that of the sheet carried by the platen, means for guiding the two sheets into position one outside the other, and in close juxtaposition when on the line on the platen to be struck by the type of the typewriter, and means for, at will, rotating the platen and the statement feed-rolls each independently of the other or together in unison in similar directions.

3. The combination with a cylindrical rotatable platen and rolls opposing the same to hold and feed a ledger sheet, of a pair of statement feed-rolls adapted to feed a statement sheet of different width from that on the platen in a direction generally parallel to that of the ledger sheet, means for guiding the two sheets into position, one outside the other, and in close juxtaposition when on the line on the platen to be struck by the type of the typewriter, and means for, at will, rotating the platen and statement feed-rolls each independently of the other or together in unison in similar directions.

4. The combination with a cylindrical rotatable platen and rolls coöperating therewith to feed a statement, of statement feed-rolls adapted to feed a relatively narrow statement sheet in a direction generally similar to that of the sheet carried by the platen, independent deflectors for guiding the sheets and arranged to bring them into close proximity on the line to be struck by the type of the typewriter, and means for, at will, rotating the platen and statement feed-rolls each independently of the other or together in unison in a similar direction.

5. In combination, a cylindrical rotatable platen, feed-rolls opposing the same to grip a ledger sheet, statement feed-rolls adapted to grip and feed a narrow statement sheet outside the ledger sheet on the platen and in a direction generally parallel thereto, a main deflector coöperating with the platen to guide the ledger sheet in its course around the platen, and a statement deflector spaced away from the main deflector and arranged to guide the statement sheet from the feed-rolls around the platen, said statement deflector approaching the main deflector adjacent to the line struck by the type of the typewriter so as to bring the statement sheet and ledger sheet into proper relation at that point, and means for, at will, rotating the platen and statement feed rolls each independently of the other or together in unison in similar directions.

6. In combination, a cylindrical rotatable platen, feed-rolls engaging the same to grip and feed a ledger sheet, statement feed-rolls independent of the platen and arranged to grip and feed a statement sheet narrower than the sheet held by the platen and in a direction generally parallel thereto, a main deflector coöperating with the platen to guide the sheet on the platen around the same, a statement deflector cut away for the statement feed-rolls and arranged to guide the sheets fed by said statement feed-rolls around the platen and to bring the same into close proximity to the surface of the platen adjacent to the line struck by the type of the typewriter, and means for, at will, rotating the platen and statement feed-rolls each independently of the other or together in unison in a similar direction.

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