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PAPER FEEDING DEVICE FOR TYPEWRITING MACHINES

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FIG. 1

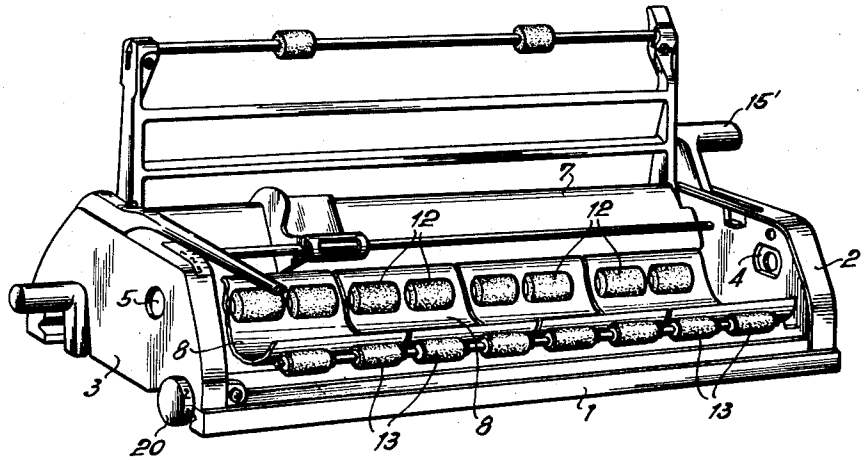
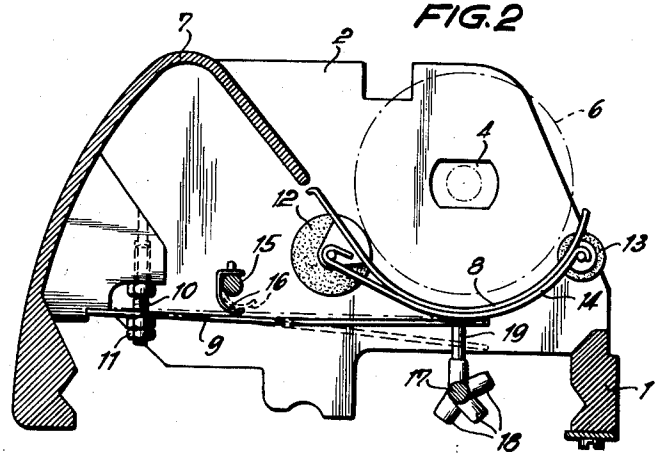


FIG. 2



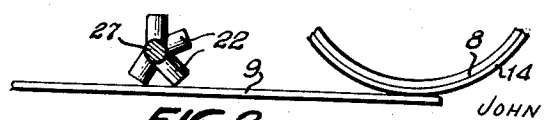


FIG. 3

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PAPER FEEDING DEVICE FOR TYPEWRITING MACHINES

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4 Claims. (Cl. 197—138)

With the present conventional typewriters it is not possible to type a text on labels, forms or similar sheets which do not occupy the entire width of the platen without having to insert each time the label, form or the like into the machine which is a time-consuming procedure when a plurality of such labels or forms are to be typed. Although the use of continuous lengths or strips of labels or forms would off from a reel yields improved fixing characteristics with regard to the individual label or form, this arrangement has not proved particularly advantageous in conventional typewriters when more than one type of labels or the like are to be used because in this case the passing from one type of labels to another requires an exchange of the respective reels.

It is a purpose of the present invention to avoid these drawbacks and to enable a plurality of lengths of various types of writing material, such as continuous perforated strips of labels, to be inserted simultaneously into the machine such that each strip can be selectively fed by turning the platen independently of the other strips which remain at rest in relation to the platen during the feeding of the selected strip.

For this purpose the arrangement according to the invention consists in subdividing the paper holding member arranged adjacent the platen into a number of laterally aligned sections adapted to be urged individually towards or away from the platen.

In the enclosed drawing an embodiment of the arrangement is shown by way of example.

In the drawing:

Fig. 1 is a perspective view of a typewriter carriage provided with an arrangement according to the invention and with the platen removed,

Fig. 2 is a transverse section of the carriage according to Fig. 1 with certain parts of the end face of the carriage removed, and

Fig. 3 is a transverse section similar to Fig. 2 of a detail showing a modification.

Referring to the drawings, **1** designates a typewriter carriage removed from the typewriter frame and with the paper guide bar lifted. **2** and **3** are the end walls of the carriage, these end walls being provided with bores **4** and **5** adapted to receive the shaft ends of a typewriter platen **6** indicated by point and dash lines in Fig. 2. On the rear side the carriage is provided with the conventional plate **7**. Aligned with plate **7** laterally aligned paper holding members **8** extend below and around the platen. These paper holding members **8** may have any width corresponding to the width of the label strips or the like for which the machine is intended to be used. Generally the various types of labels or forms will be of substantially identical width and accordingly the paper holding members **8** also will be of equal width.

In the embodiment shown in the drawings there are four paper holding members **8** each completely independent of the others and supported on the one end of one spring **9** each, said spring at the opposite end being attached to the rear part of the carriage **1** by means of

screws **10** and nuts **11** such that the tension of the spring **9** may be adjusted by means of said nuts normally to urge the respective paper holding member **8** towards the platen **6** for abutment of rolls **12** and **13** under appropriate pressure against the platen surface. Rolls **12** and **13** are journalled in ears on the underside of member **8** and extend in part through rectangular recesses in members **8**, wires **14** being provided for securing the shafts of said rolls in position. In the embodiment shown each member **8** carries both a pair of rolls **12** and a pair of rolls **13**. However, this arrangement is subject to any desired modification and any other structure pressing the paper against the platen in a convenient way and without undue frictional resistance against the feed of the paper may be used instead.

A shaft **15** extends transversely across all the springs **9** adjacent their points of attachment to the carriage. This shaft **15** is provided with abutments opposite to each of the springs **9** such that by rotating shaft **15** by means of a lever **15'** all the abutments **16** will engage and press down the springs **9** whereby all the paper holding members **8** are disengaged from the platen **6** and no feed of paper will take place upon rotation of the platen **6**.

In order to bring about selective feed of the paper strip belonging to any of the separate paper holding members **8** there is provided a shaft **17** extending below all the paper holding members **8** and provided with cams or pins **18** each belonging to one of members **8**. These pins **18** are adapted selectively to engage pins **19** downwardly extending from members **8** to urge the corresponding member upwardly against platen **6** whereby the corresponding paper strip will be fed in the normal way when the platen **6** is rotated whereas the other paper strips will remain at rest. Shaft **17** is journalled in the end walls **2, 3** of the carriage and protrudes through either of these end walls, the protruding end being provided with an easily accessible knob **20** by means of which shaft **17** may be rotated. Knob **20** is suitably provided with indices to facilitate selection of a certain paper strip to be fed.

It should be noted that a typewriter incorporating the above or equivalent structures also may be used for normal writing when all the pins **18** are brought out of engagement with their corresponding paper holding members **8** to enable these members **8** to be actuated in the normal way by means of lever **15'**.

It should further be noted that many structures and modifications may be made within the spirit and scope of the invention as defined in the appended claims. The members **8** may selectively be urged towards the platen as described above. All the paper holding members **8** may also normally engage the platen, means being provided enabling the members to be selectively urged away from the platen. These means may be similar to those urging the members selectively against the platen in Fig. 2, but arranged instead of shaft **15** and abutments **16**. This structure is illustrated in Fig. 3, wherein shaft **21** when rotated is adapted to engage by cams **22** selectively the springs **9** of the respective members **8**.

What is claimed is:

1. In a typewriter, a carriage, a platen journalled in said carriage, at least three paper holding members aligned longitudinally of the platen, spring means normally urging said paper holding members into engagement with said platen for holding a plurality of juxtaposed paper sheets, means for simultaneously disengaging said paper holding members from the platen against the action of said spring means, and means serving for selectively locking any of said holding members in engagement with said platen.

2. In a typewriter, a carriage, a platen journalled in said carriage, a paper holding member below said platen, said paper holding member being subdivided into a plu-

rality of sections aligned longitudinally of the platen, spring members each urging one of said sections into engagement with said platen, means acting on all of said spring members for simultaneously disengaging said sections from said platen and means serving for selectively locking any of said paper holding member sections in engagement with said platen.

3. Arrangement according to claim 2, characterized in that said spring members are blade springs fixed at one end at the rear of the carriage and each carrying at the other end one of said sections and that said disengaging means comprise a shaft extending substantially in the direction of the platen and provided with aligned cam members adapted upon rotation of said shaft to act on said blade springs for simultaneous disengagement of all said sections from said platen.

4. Arrangement according to claim 2, characterized in that said means for selectively locking any of said paper holding member sections in engagement with said platen comprise a shaft extending substantially in the direction of the platen and provided with cam members spaced circumferentially of the shaft and each adapted upon rotation of said shaft to lock one of said paper holding member sections in engagement with said platen.

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