J. P. BURKS & C. M. YOUNG.

PAPER FEEDING DEVICE FOR TYPE WRITING MACHINES.

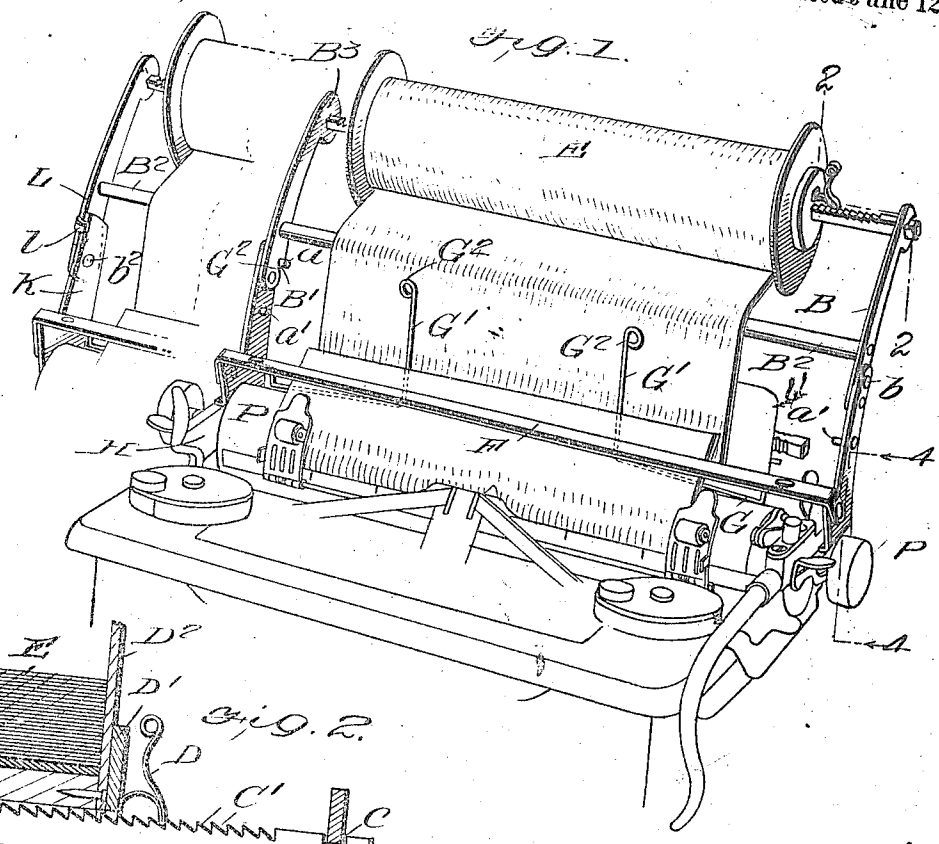
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1,229,880.

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Fig. 5.

Fig. 1.



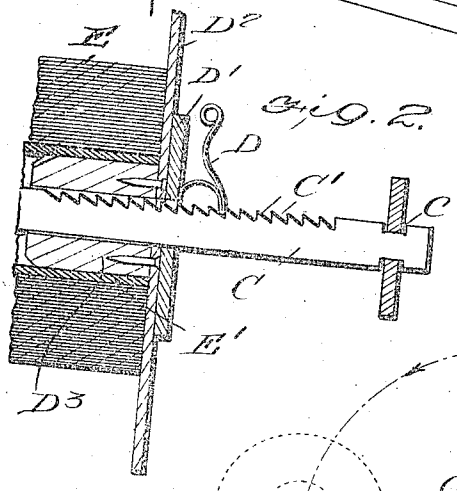


Fig. 2.

Fig. 3.

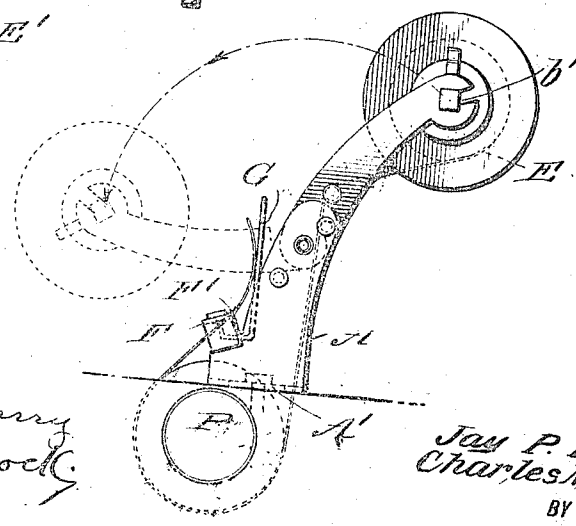
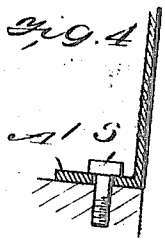


Fig. 4.



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PAPER-FEEDING DEVICE FOR TYPE-WRITING MACHINES.

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To all whom it may concern:

Be it known that we, JAY P. BURKS and CHARLES M. YOUNG, citizens of the United States, and residents of Helena, in the county of Phillips and State of Arkansas, have made certain new and useful Improvements in Paper-Feeding Devices for Type-Writing Machines, of which the following is a specification.

Our invention relates to improvements in type-writing machines and more particularly to the paper feed mechanism whereby a continuous web of paper may be fed to the platen and has for an object to provide a simple, cheap and efficient attachment for typewriters for holding a roll or web of paper, feeding it to the platen and severing the web into sheets of the desired size.

With this and other objects in view our invention consists in certain novel features of construction, arrangement and combination of parts as will be hereinafter fully described and pointed out in the claims, reference being had to the drawing in which—

Figure 1 is a perspective view showing our improvements as applied and in use on a typewriting machine.

Fig. 2 is a sectional view on line 2—2 of Fig. 1.

Fig. 3 is an end view.

Fig. 4 is a sectional view on line 4—4 of Fig. 1, and

Fig. 5 is a detail perspective of a modification.

Referring more particularly to the drawing which shows an embodiment of our invention it will be seen that we provide metal standards A having slotted feet A′ by which they are attached to the typewriter carriage H at each side of the machine adjacent the ends of the platen P by screws S. To the upper ends of the standards which incline rearwardly slightly are pivotally attached the lower ends of bracket arms B which have in their rear edge just above the pivot *b* the notches B′ which engages pins *a* projecting inwardly from the standards A above said pivot *b*. The bracket arms B are connected near their lower ends by a rigid round bar or rod B^2 and the upper ends of the brackets B which curve upwardly to the rear are enlarged as at B^3 and are provided with the open rectangular slots *b*′ similar to those in a shade bracket and in these slots are to be seated the notched ends of rod C of suitable shape but preferably rectangular. This rod has adjacent its ends for a suitable distance a series of ratchet teeth C′ which are engaged by a spring pawl D flexibly mounted on the hub D′ forming an integral part of a disk D^2 which has the central inwardly projecting trunnions D^3 which fit slidably on the rod C but are not revoluble thereon. These trunnions project into the ends of the paper roll E which has a hollow cylindrical core E′, the trunnions centering the paper roll, and the disks holding it in proper position on the rod C by reason of the pressure of the spring pawls engaging the ratchet teeth and forcing the two disks toward each other.

To the standards A at a point approximately over the center of the platen, a strip of flat metal F is rigidly connected at its ends, the inner edge F′ of said strip being smooth or serrated like a saw edge forming a cutting or tearing edge for the paper. To this cutter bar are attached the guides G made of wire riveted at one end to the lower face of the cutter bar then bent downwardly and then rearwardly but toward the center of the machine. They are then bent and extend vertically as at G′ terminating in eyes G^2 or rounded ends.

As stated the paper roll is supported on the trunnions projecting inwardly from the disks D^2 and said roll is released line by line or space by space as it is fed into the typewriting machine by means of the ratchet controlling the platen or cylinder of the machine in the same manner as ordinary sheets of paper are fed, except that the feeding is continuous. The disks D^2 which hold the paper web or roll in position are themselves held in position by the metal spring pawls D which engage the ratchet teeth on the rod these pawls being movable to right or left as required to keep the paper in the proper position for feeding into the typewriting machine and maintaining a uniform tension in the feeding process.

As before stated, the brackets B are pivoted to the standards A so that the paper reel E may be lowered toward the front of the machine to allow the operator to examine or adjust the rear mechanism of the machine without rising from a sitting position or turning the machine to bring the back to the front; the stop pins *a*′ prevent the swinging or upper portion of the reel car-

rier from falling forward upon the front part of the machine to which it is attached, while the stops or pins *a* will be engaged by the notches B′ in the rear face of the brackets to prevent said brackets and the paper reel from falling to the rear of the machine.

It will thus be seen that the frame carrying the paper reel is foldable forwardly and rearwardly. The guides G′ extend upwardly toward the connecting rod B^2 which is above the pivotal point of the upper frame and prevent the paper which unwinds from the reel, passes in front of cross rod B^2 beneath the platen P then travels upwardly behind the cutting blade and upwardly in front of the guides, from winding around the platen but directs it upwardly toward the paper roll.

Our improvements may be applied to practically any of the machines in common use and the paper rolls may be of any width according to capacity of the machine for which it is intended, and the paper may be printed or plain, ruled vertically or horizontally and may be printed as a continuous roll or web of any size, bill-head, statement, letter-head, note-head, invoice, sales-ticket or any other forms of printed stationery used in professional or commercial work.

In the embodiment shown, our improvements are used in connection with what is known as the "L. C. Smith & Bros. typewriter" though it may be applied to any of the ordinary typewriting machines in common use without any material changes. In the present instance to insert paper web place reel in slots in end of bracket arms and see that free end of web is at the back of the roll; bring the free end under roll toward front of machine and over the cross rod B^2 immediately below the roll, bring the end down to the point where it will be engaged by the rubber platen keeping the paper back of the wire guides G′; give the platen a turn bringing paper out in front of the platen. This action will carry the end of the paper upward so that it comes under the cutting blade and above the wire guides. The device is then ready for operation and as the sheets are needed they may be torn off by a quick firm pull from left to right.

In Fig. 5 we show a modified construction of the standard or bracket arms. In such figure the standards K are pivoted to the lower ends of the bracket arms L which has a stop lug *l* bent from one edge, which lug engages the standard K above the pivot b^2 when the paper roll is in its upper or operative position, and the same lug will contact with the standard below the pivot b^2 when swung down to the front of the machine.

We claim:

1. A paper feed attachment for typewriting machines comprising a foldable frame adapted to be attached to the carriage of the machine, a rectangular shaft removably supported at its ends in said frame, and adapted to support a strip of paper formed into a hollow roll, disks having central rectangular openings and capable of longitudinal movement only, with respect to the shaft, resilient means carried by said disks and engaging the shaft to hold the disks yieldingly thereon and against the ends of the paper roll, and stationary cylindrical trunnions projecting inwardly from said disks into the bore of the hollow paper roll to center and rotatably support the same.

2. A paper feed attachment for typewriting machines comprising a foldable frame consisting of upper and lower bracket arms, the lower arms adapted to be detachably secured on the carriage of the machine and the upper arms adapted to rotatably support a hollow roll of paper, a transverse cutter blade secured to the said lower arms and connecting the same and spring guide fingers secured to the cutter blade and projecting toward the center of the machine and then upwardly to guide the paper against the cutting edge of the blade.

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