H. HOPKINS.

COPY HOLDER.

APPLICATION FILED FEB. 23, 1909.

947,614.

Patented Jan. 25, 1910.

Fig. 1.

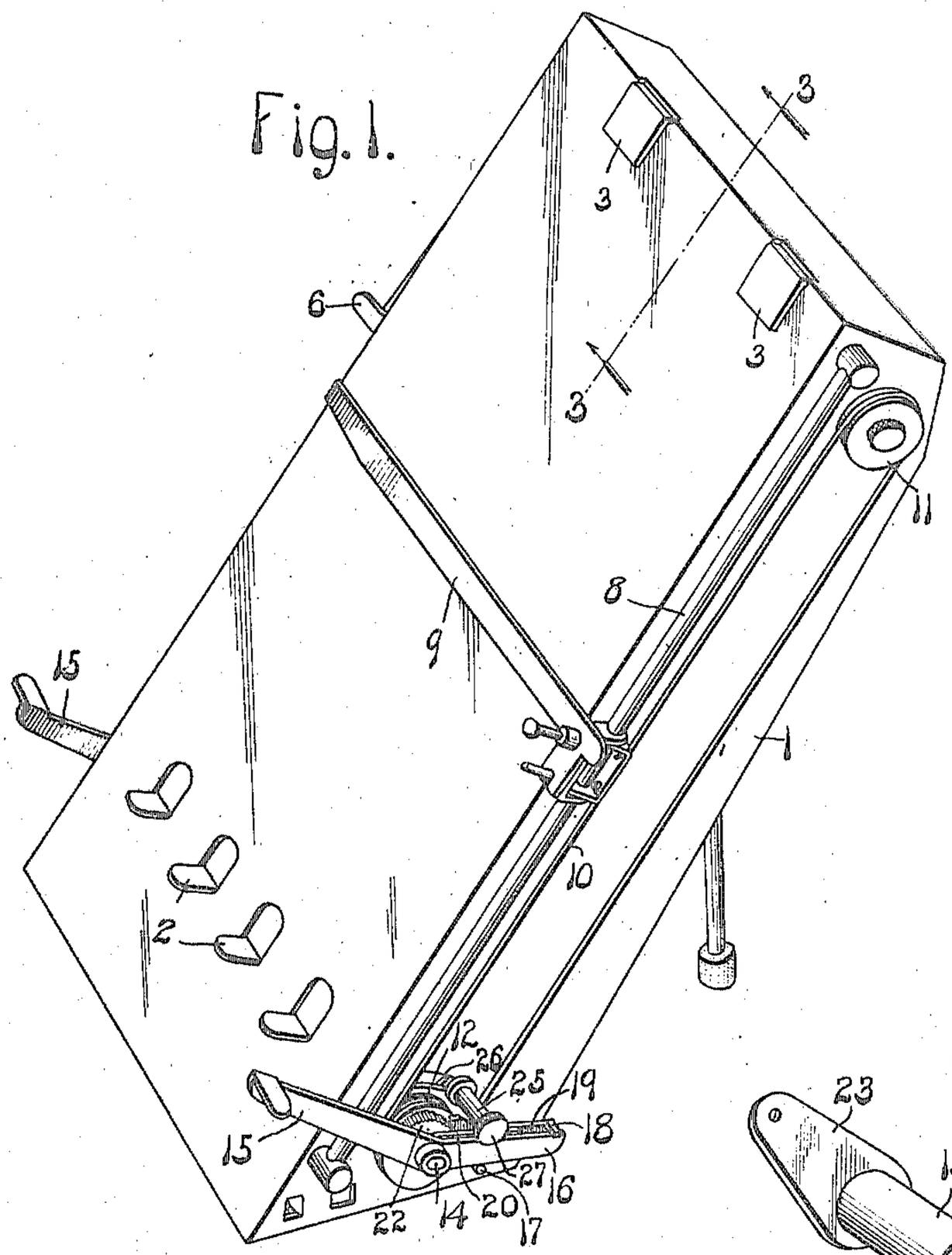


Fig. 3.

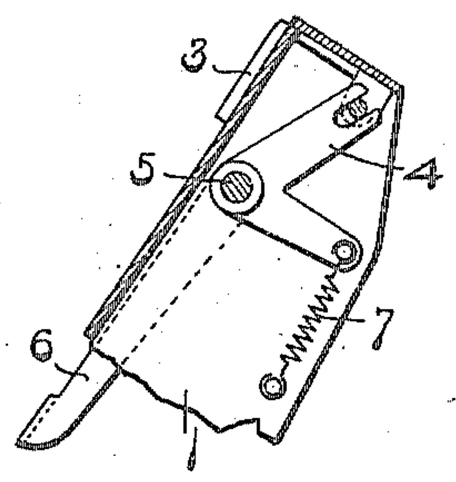


Fig. 4.

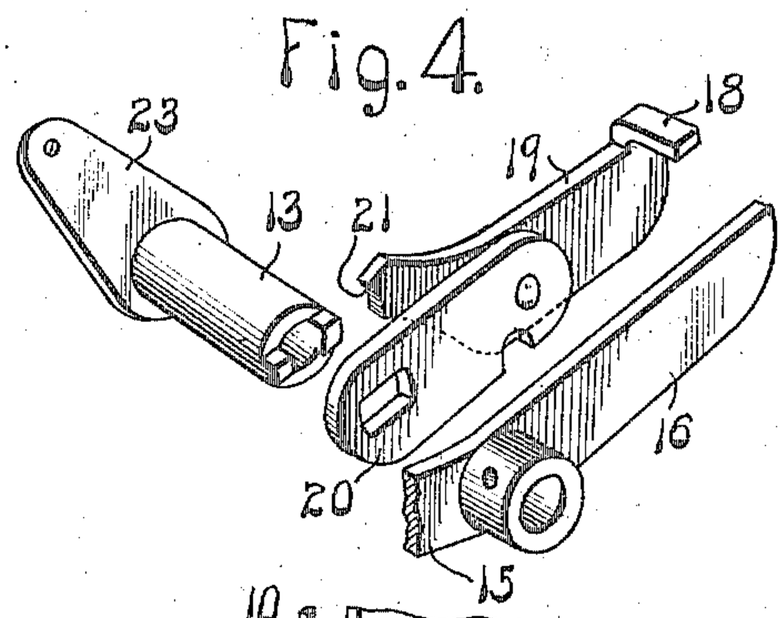


Fig. 2.

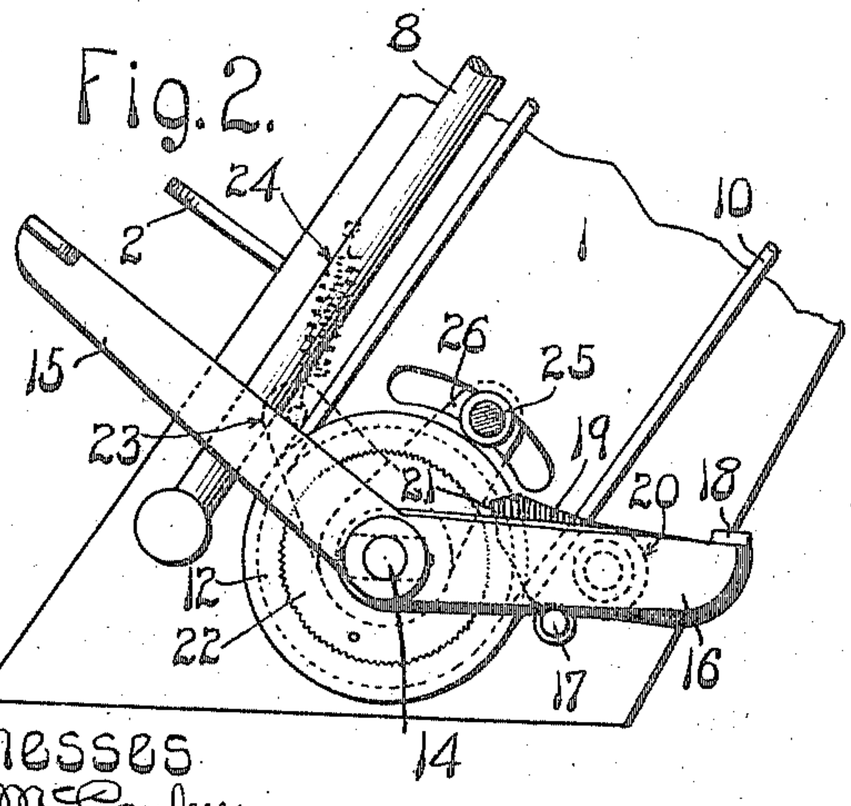
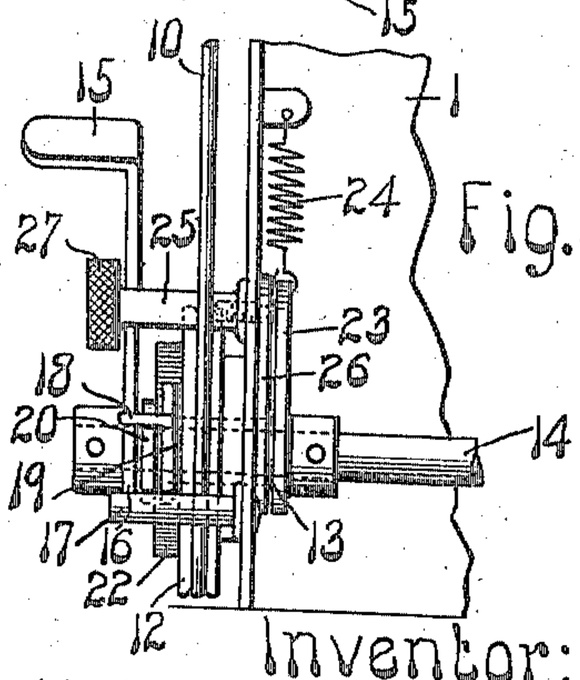


Fig. 5.



Witnesses

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UNITED STATES PATENT OFFICE.

HUBERT HOPKINS, OF ST. LOUIS, MISSOURI, ASSIGNOR TO MOON-HOPKINS BILLING MACHINE COMPANY, OF ST. LOUIS, MISSOURI, A CORPORATION OF MISSOURI.

COPY-HOLDER.

947,614. Specification of Letters Patent. Patented Jan. 25, 1910.

Application filed February 23, 1909. Serial No. 479,410.

To all whom it may concern:

Be it known that I, HUBERT HOPKINS, a citizen of the United States, residing at St. Louis, Missouri, have invented a certain new and useful Improvement in Copy-Holders, of which the following is a full, clear, and exact description, such as will enable others skilled in the art to which it appertains to make and use the same, reference being had to the accompanying drawings, forming part of this specification, in which—

Figure 1 is a perspective view of my improved copy holder. Fig. 2 is a side elevational view of the lower part of the holder. Fig. 3 is a sectional view on line 3—3, Fig. 1. Fig. 4 is a view illustrating the details of certain parts of the device. Fig. 5 is a rear elevational view of the part shown in Fig. 3.

This invention relates to a new and useful improvement in copy holders such as are used by stenographers and others in transcribing notes or copy, the object being to provide means whereby when the guide or indicating bar is operated step by step to indicate the different lines it will be moved the proper distance between lines.

Great trouble has been experienced heretofore in the bar being moved too far as the operator strikes the guide or lever to effect the line-spacing of the bar.

My invention, therefore, consists principally of means for preventing the overthrow of said bar and, incidentally, in the construction, arrangement and combination of the several parts, all as will hereinafter be described and claimed.

In the drawings, 1 indicates a supporting frame, on which the sheet or book to be copied is arranged, said sheet or book being held in position by shelf-like projections 2 and clamping fingers 3. These clamping fingers are slidingly mounted in ways and connected to rock arms 4 on a shaft 5, which shaft has a lever or handle 6 for operating it. A spring 7 holds the fingers retracted.

8 is a guiding rod mounted on the side of frame 1, on which is mounted indicating bar 9. 10 is a cable connected to said bar and passing over a sheave 11 at the upper end of support 1 and a sheave 12 at the lower end of said support. Sheave 12 is loosely mounted on a sleeve 13, in turn loosely mounted on a shaft 14. Shaft 14 extends transversely across the support 1 and is provided with operating handles or levers 15 at each end, which handles are preferably pinned to the shaft. One of the handles 15, the one fixed to the end of the shaft adjacent to the sleeve 13, is provided with rearwardly extending finger 16 which is normally supported upon a post 17 extending from the support 1. Finger 16 cooperates with a lateral projection 18 on the end of a feed pawl or dog 19 pivotally mounted upon an arm 20, so connected to sleeve 13 as to rotate therewith. The inner end of dog 19 is provided with teeth 21, which coöperate with the milled edge of a disk 22 conjoined to the sheave 12.

23 is an arm affixed to the inner end of sleeve 13 and coöperating with a spring 24 whereby the arm 20 and its carried dog 19 are normally held in their lowered position against the post 17 in which position the post enters a recess in the lower edge of arm 20 (see Fig. 4), and lifts the inner end of the dog 19 so that its teeth are held out of engagement with the milled edge of the disk 22. Whenever either handle 15 is depressed, the finger 16 by engaging the lateral projection 18 forces the toothed end of dog 19 into engagement with the disk, the continued upward movement of finger 16 rotating the disk.

In order to limit the forward movement of finger 16, and at the same time prevent overthrow of the disk, I project the upper inner edge of dog 19 above the arm 20 and arrange an adjustable post 25 in its path of movement. This post extends through a curved slot in the flange of the support 1 and is mounted on an arm 26, having an axis or movement about the sleeve 13, on which it is loosely mounted. The outer end of the post is provided with a milled head 27 and its inner end is threaded to receive a screw extending from the arm 26. When the post 25 is screwed down it clamps the edges of the curved slot so that the post may be locked in its adjusted position.

When the inner raised edge of the dog 19 contacts with the post 25 it jams the teeth of the dog against the disk 22, bringing the parts to a position of rest to prevent overthrow of the disk. The rotary movement of disk 22 may be adjusted by positioning the post 25. I prefer to have the milled edge of dog 19 and the disk 22 in the form of fine teeth so that fine adjustment in the stroke

of the bar 9 can be effected. For differently spaced lines, the disk 22 being joined to the sheave 12 will, through the cable 10, move the bar 9 at each vibration of either of the levers 15.

When the levers 15 are in their normal position and the teeth 21 are out of engagement with the disk, it is possible to move the guide bar 9 freely either up or down. Of course, the step by step mechanism, when operated, steps the guide bar downwardly.

I am aware that minor changes in the construction, arrangement and combination of the several parts of my device can be made and substituted for those herein shown and described, without in the least departing from the nature and principle of my invention.

Having thus described my invention, what I claim is:

1. In a copy holder, a support, a guide bar, a cable connected to said guide bar, a sheave on which said cable passes, a shaft on which the sheave is loosely mounted a ratchet conjoined to said sheave a spring held arm movable about the axis of said ratchet, a pawl carried by said arm, adjustable means coöperating with said pawl to jam it against the ratchet thereby preventing overthrow of said ratchet, and a lever fixed on each end of the shaft for operating the same and the ratchet and pawl mechanism.

2. In a copy holder, a support, a guide bar, a pawl and ratchet mechanism for effecting a step-by-step movement of said guide bar, means for actuating the pawl, means on the support for normally holding the pawl dis-engaged from the ratchet, and adjustable means for jamming the point of the pawl against the ratchet at the end of the stroke of the pawl actuating means whereby overthrow of the ratchet is prevented.

3. In a copy holder, a support, a guide bar, a cable connected to said guide bar, a sheave around which said cable passes, a ratchet conjoined to said sheave, an arm movable about the axis of the ratchet, a gravity pawl on said arm, means for holding the point of the pawl disengaged from the ratchet while the arm is in its normal position, and means for jamming the point of the pawl against the ratchet at the end of the stroke of said arm.

4. In a copy holder, a support, a shaft journaled therein, a sheave loosely mounted on the shaft, a cable operating on said sheave, a guide bar carried by the cable, a ratchet and pawl mechanism adjacent the shaft for imparting intermittent rotary motion thereto, and levers fixed on each end of the shaft, one of which levers engages the pawl and moves the point thereof into engagement with the ratchet when the shaft is rocked.

5. In a copy holder, a support, a rock shaft journaled therein, a sheave loosely mounted on the rock shaft, a cable operating on said sheave, a guide bar carried by the cable, a ratchet conjoined to the sheave, an arm loosely mounted on the rock shaft, a gravity pawl carried by said arm, a lever fixed on the shaft for imparting movement thereto, which lever engages a part of the pawl, and stops on the support in the path of travel of the pawl.

6. In a copy holder, a support, a rock shaft journaled therein, a sheave loosely mounted on the rock shaft, a cable operating on said sheave, a guide bar carried by the cable, a ratchet conjoined to the sheave, an arm loosely mounted on the rock shaft, a gravity pawl carried by said arm, a lever fixed on the shaft for imparting movement thereto, which lever engages a part of the pawl, a fixed stop on the support for normally holding the point of the pawl away from the ratchet, and an adjustable stop in the path of travel of said pawl for jamming the point of the same against the ratchet at the end of the stroke of the pawl-carrying arm.

In testimony whereof I hereunto affix my signature in the presence of two witnesses, this 18th day of February, 1909.

HUBERT HOPKINS.

Witnesses:

F. R. CORNWALL,

LENORE CLARK.