

No. 818,924.

PATENTED APR. 24, 1906.

R. H. STRONG.
ENVELOP STACKER.
APPLICATION FILED MAY 8, 1905.

2 SHEETS—SHEET 1.

Fig. 1.

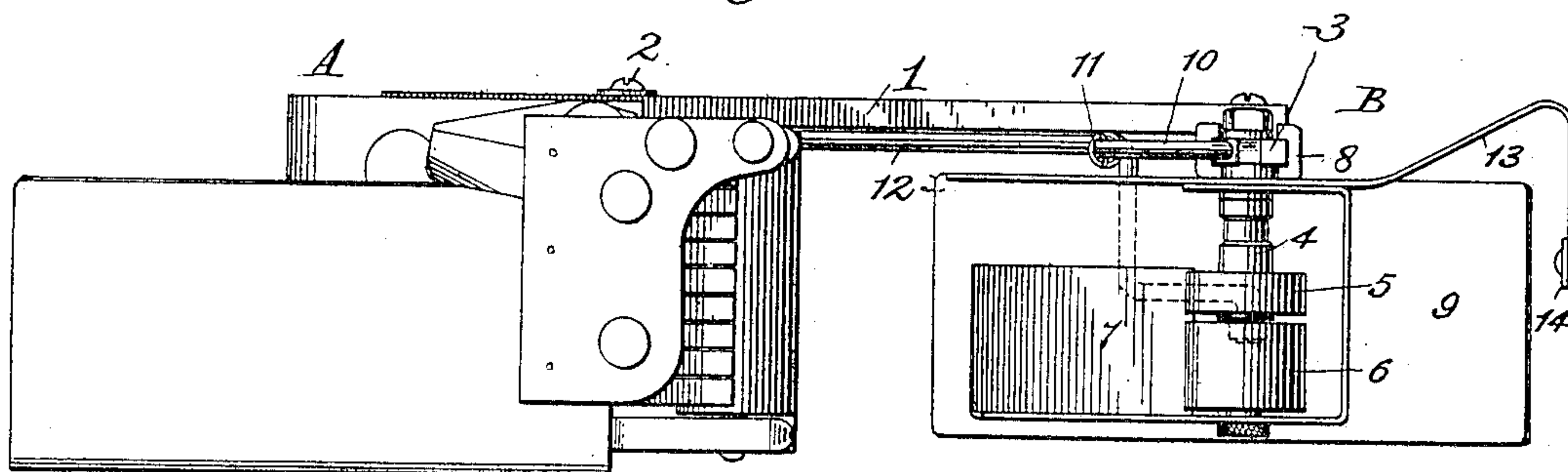


Fig. 2.

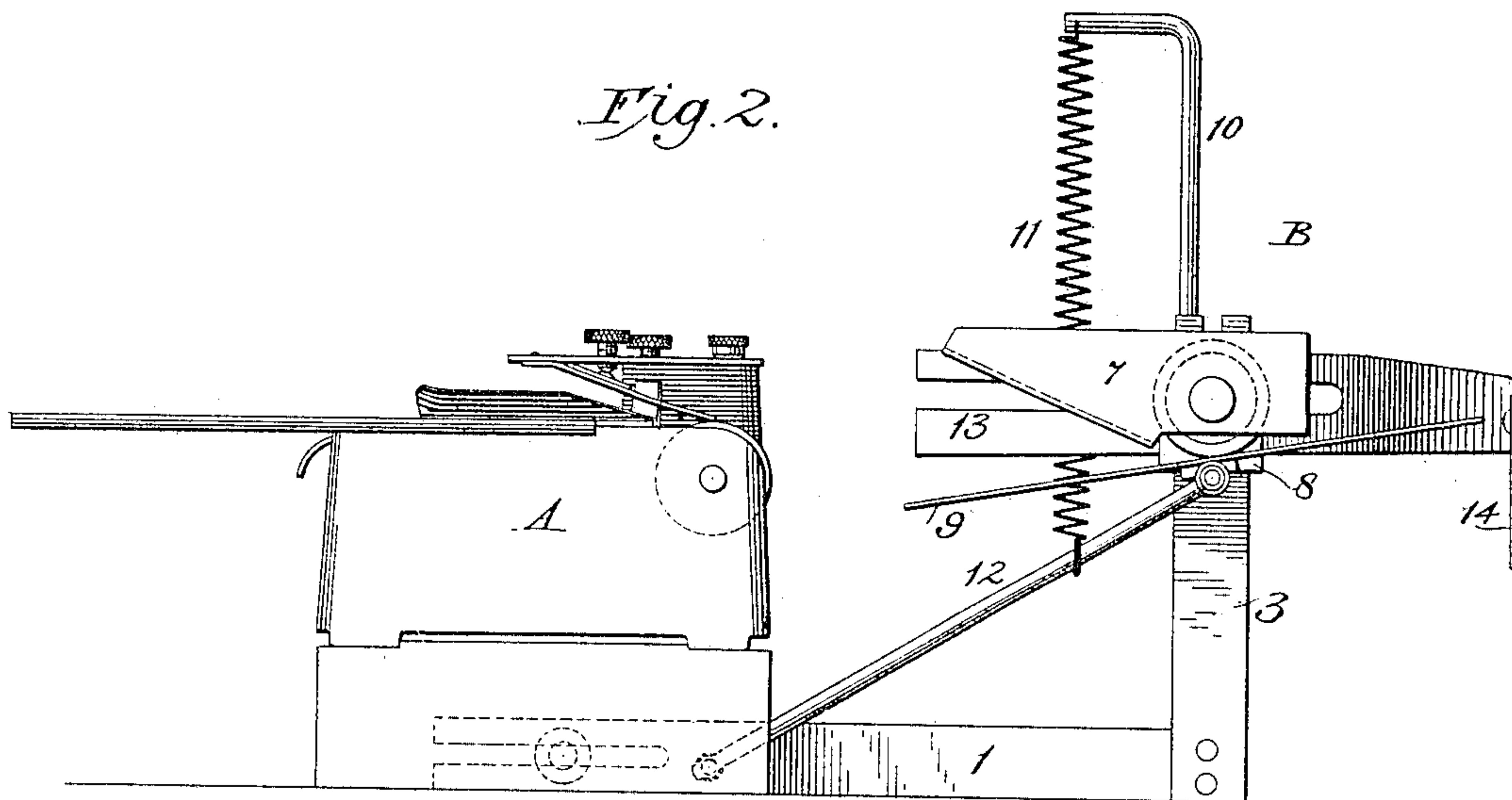
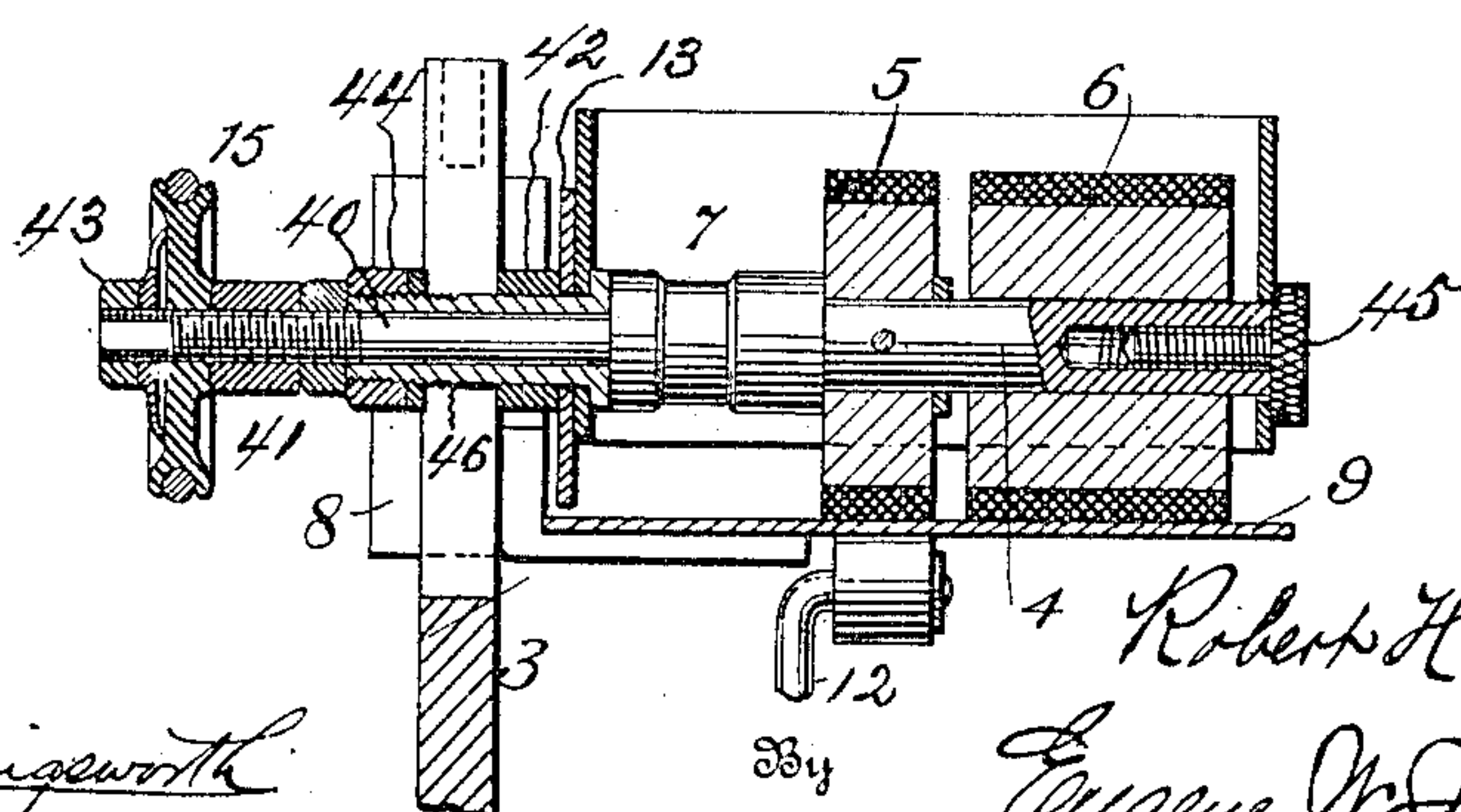


Fig. 3.



Witnesses
Sidney P. Hollingsworth
J. C. Johnson

Inventor
Robert H. Strong
By *Eugene W. Johnson*
Attorney

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2 SHEETS—SHEET 2.

Fig. 4.

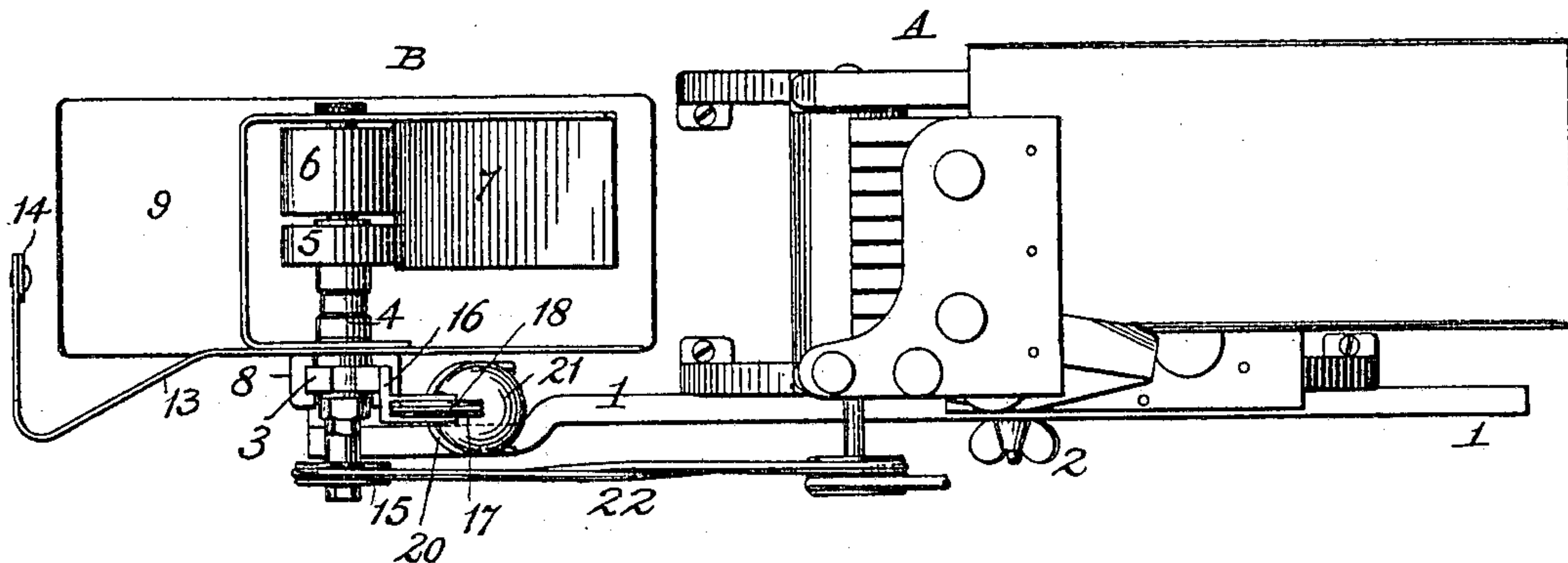
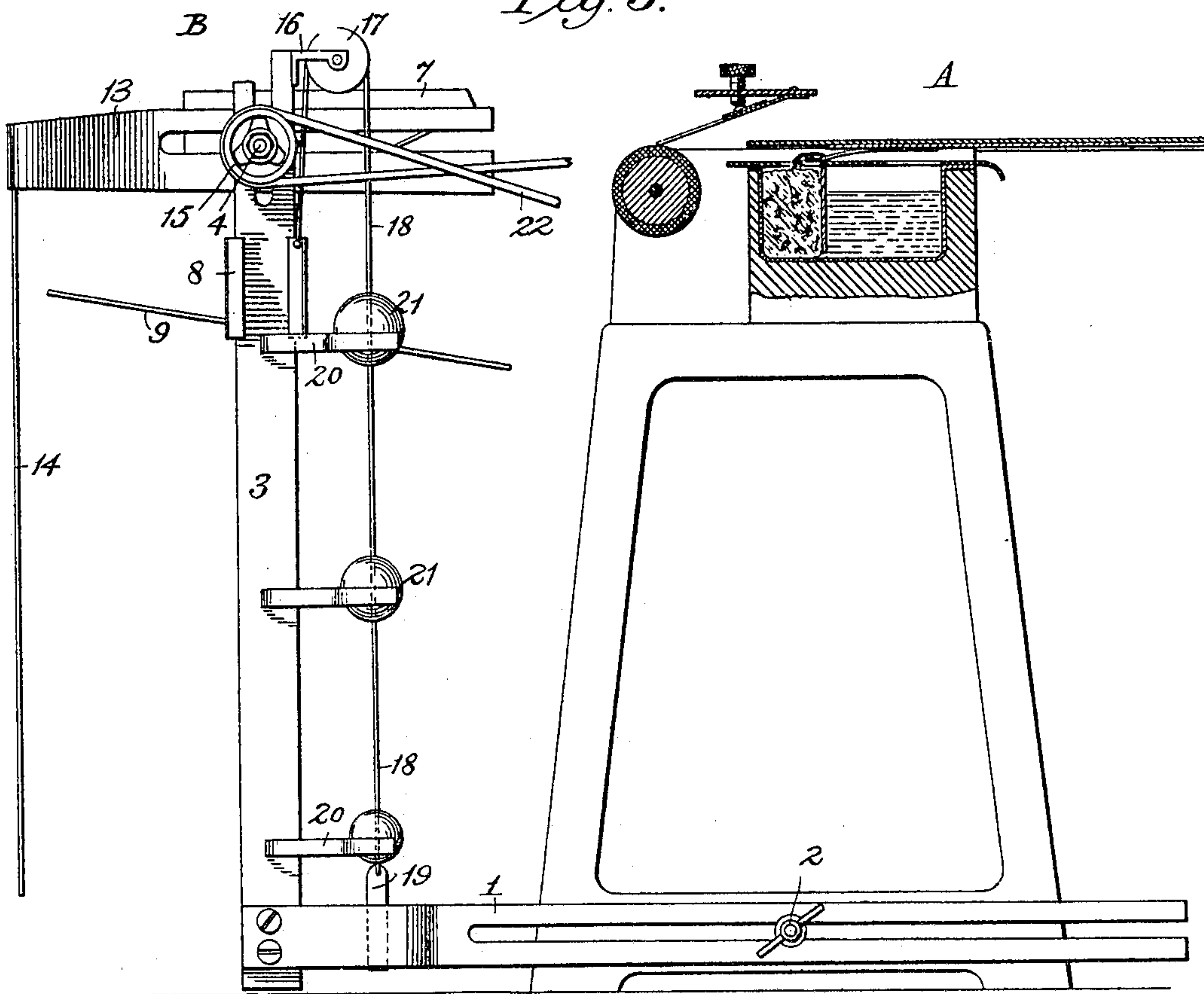


Fig. 5.



Inventor

Witnesses

Sydney P. Hockingworth
J. C. Johnson

By

Robert H. Strong
Charles M. Johnson

Attorney

UNITED STATES PATENT OFFICE.

ROBERT H. STRONG, OF GALESBURG, ILLINOIS.

ENVELOP-STACKER.

No. 818,924.

Specification of Letters Patent.

Patented April 24, 1906.

Application filed May 8, 1905. Serial No. 259,382.

To all whom it may concern:

Be it known that I, ROBERT H. STRONG, a citizen of the United States, residing at Galesburg, in the county of Knox and State of Illinois, have invented new and useful Improvements in Envelop-Stackers, of which the following is a specification.

This invention relates to certain new and useful improvements in attachments for envelop-moisteners and sealers, stamp-affixers, and machines of a like character where it is desirable to press and stack envelops, and a device made in accord with my invention provides an attachment for either hand or power operated sealers or stamp-affixers whereby the envelops will be passed therefrom to an automatic press and stacker.

In the accompanying drawings, Figure 1 is a plan view of an envelop press and stacker made in accord with my invention and applied to an envelop-sealer. Fig. 2 is a side elevation; Fig. 3, a sectional view taken through the longitudinal center of the pressing-roll. Fig. 4 is a plan view of a power-operated press and stacker; and Fig. 5 is a side elevation, partly in section.

Upon all of the figures of the drawings A refers to an envelop moistener and sealer made somewhat in accord with what is shown in Letters Patent No. 743,667, issued to me March 10, 1903.

To the base of such an envelop moistener and sealer my invention is connected so that after the adhesive on the flap of the envelop is moistened and sealed the envelop passing from such machine will be fed beneath a roller maintained above a movable platform which will press and stack the sealed envelops.

The press and stacker is preferably connected adjustably to the base or support of the moistener and sealer, so as to accommodate envelops of different sizes, and to this end a slotted bar 1 and a set-screw 2 are provided, and by this means the two devices are connected so that they will coöperate.

The press or stacker B has an upright or standard 3, preferably rectangular in cross-section and bifurcated at its upper portion, to admit of vertical adjustment of a shaft 4, that carries rollers 5 and 6, as well as a guide 7, that is movable vertically with the shaft. The standard 3 carries or has mounted to move thereon a slide 8, such slide carrying an inclined platform 9, the slide and platform being moved toward the rollers by any suit-

able means, as by a spring or weight. The platform 9 and the slide is pressed downward against the action of a spring or weight as the envelops are fed one on top of the other between the rollers and the platform.

As shown more particularly in Figs. 1 and 2 of the drawings, the standard 3 supports at its upper end an arm 10, and to the upper portion of this arm is fastened a spring 11, the lower end thereof engaging a pivoted bar or lever 12, said arm engaging at one end the bifurcated or slotted bar 1, and the upper end of the bar or lever 12 is bent at right angles and is provided with a roller for engagement with the under side of the platform 9.

In order to prevent the envelops being moved off of the platform and to insure keeping the same in vertical alinement, I attach to the shaft 4 a slotted arm 13, which carries a depending bar 14, against which the envelops may strike. The bar 13 is clamped between a guide 7 and the standard 3.

The guide is preferably struck up from a single piece of sheet metal and has an inclined front portion against which the envelops may strike as they are guided beneath the rollers 5 and 6. One of the sides of the guide 7 is apertured to admit of the passage there-through of the shaft 4, and the opposite side has a similar opening through which passes the sleeve 46, that is placed upon the reduced portion 40 of said shaft 4, the sleeve being engaged by a collar 42 and a nut 44, such nut bearing against one of the sides of the standard 3 when the collar is passed through the slot in its upper end, and when the nut 44 is loosened the guide may be adjusted to vary the angle of its inclined portion as may be desired. The purpose of providing a longitudinally-slotted bar 13 is to adapt the machine to be used in pressing and stacking envelops of different sizes.

The shaft 4, which is carried by the upper end of the standard 3, has mounted thereon a pressing-roller 6, which turns loosely upon the shaft, and adjacent to this pressing-roller is a feed-roller 5, that is much narrower than the pressing-roller and is fast upon the shaft. The shaft is provided at one end with a reduced portion 40, upon which is mounted a wheel 15, also sleeves 41 and 42, and with clamping-nuts 43 and 44, so that the shaft can be made fast to the upright 3 and will hold not only the shaft, but also the flat bar 13 and the guide 7, and when the shaft is turned the feed-roll 5 will move therewith.

The end of the shaft 4 farthest from the disk or wheel 15 carries a screw 45, the head of which is of a larger diameter than the opening in the side piece of the guide 7, in which the shaft is seated.

Figs. 1 and 2 of the drawings show my invention in connection with a hand-operated moistener and sealer, and with such device the envelops are drawn under the roller of the envelop moistener and sealer by hand, and after the gum on the envelop has been moistened and the flap pressed down to seal the same the sealed envelop is moved without releasing the hand therefrom under the guide 7 above the platform 9, the envelop being manually carried between the rollers 4 and 5 and the platform, and in practice the envelop is carried by hand for such a distance that one end of the same will abut against the bar 14, that depends from the rear portion of the arm 13. As the envelops are successively placed above the platform such platform and slide attached thereto will move downward, and the constant upward pressure of the platform serves to press the envelops upward against rollers 5 and 6 in order to more securely seal and hold them in a stack.

As shown in Figs. 4 and 5, the apparatus is adapted for use with a power-operated sealer and combined press and stacker, and as a spring would not well serve or be convenient in an apparatus of this character I move the slide and platform toward the rollers 5 and 6 by means of a flexible connection having a series of pick-up weights, so that as the envelops are placed on the platform more weights will be added to maintain substantially the same degree of pressure irrespective of the number upon the platform.

The upright 3 has, as shown in Figs. 4 and 5, a bracket 16, that carries a roller 17, over which is passed a flexible connection 18, one end having attached thereto a weight 19, the other end being made fast to the slide 8, which carries the inclined platform 9. The upright 3 carries a series of brackets 20, with openings or forks of varying sizes, the diameter of the openings or forks increasing upwardly, so that the diameter of the opening of each fork or bracket will be slightly larger than the one next below. Upon the flexible connection 18 are placed weights 21, through which the cord or flexible connection may freely pass, and in operation as the platform is lowered the stop or weight 19 will pick up one weight and when it reaches the bracket next above will pick up another one, and so on until the upper weight is lifted from its support or the platform reaches the limit of its downward movement.

The shaft which carries the roller of the moistener has a double pulley, which is driven by a suitable belt, and about such double pulley there is also passed a belt 22, that engages

a pulley 15 to turn the feed-roller 5, so that in a large apparatus it will only be necessary to feed the envelops to the moistener and sealer as they will be taken therefrom by the press and stacker.

Having thus set forth my invention, I do not wish to limit myself to the particular construction or arrangement herein shown, and what I claim as new, and desire to secure by Letters Patent, is—

1. In an envelop press and stacker, a standard or support having means for connecting the same to an envelop moistener and sealer, the standard having attached thereto a vertically-movable platform, means for moving the platform upward, a stop-bar attached to the standard and maintained in line with one end of the platform, a roller above the movable platform such roller being mounted on a shaft attached to the standard, and a guide-plate carried by the shaft and maintained in an oppositely-inclined position from the platform, substantially as shown.

2. In an envelop press and stacker, the combination with a vertical upright of a slide movable upon the upright and carrying a platform, means for exerting upon the platform an upward pressure of a varying nature, a shaft having thereon feed and pressure rollers and an inclined guide-plate carried by the shaft, substantially as shown and for the purpose set forth.

3. In an envelop press and stacker, the combination with a vertical upright having means for connecting the same with a device for sealing envelops, a slide maintained in movable engagement with the upright, a platform attached to the slide, means for exerting an upward pressure of a varying nature against the platform, an arm having a depending portion that is maintained in line with the platform, a shaft attached to the upper portion of the upright, a roller mounted on the shaft and an inclined guide-plate maintained in front of the roller.

4. An envelop press and stacker having a vertical standard or upright to which is attached a slotted bar for connecting the press and stacker in position to cooperate with an envelop-sealer, a platform-carrying slide which is movable vertically upon the standard, means for exerting an upward pressure upon the platform and slide attached thereto, a shaft maintained at right angles to the standard, rollers mounted on a shaft, a guide-plate carried by the shaft and a bar maintained in adjustable engagement with the standard said bar having a member that depends in front of the platform, substantially as shown and for the purpose set forth.

ROBERT H. STRONG.

Witnesses:

LAKE W. SANBORN,
C. R. PARKINS.