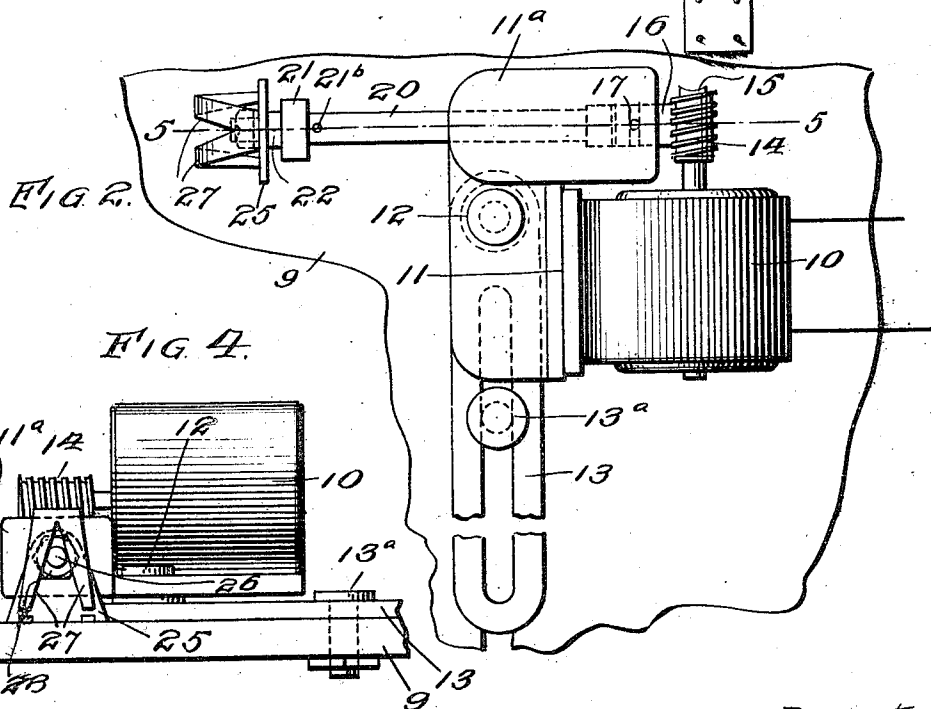
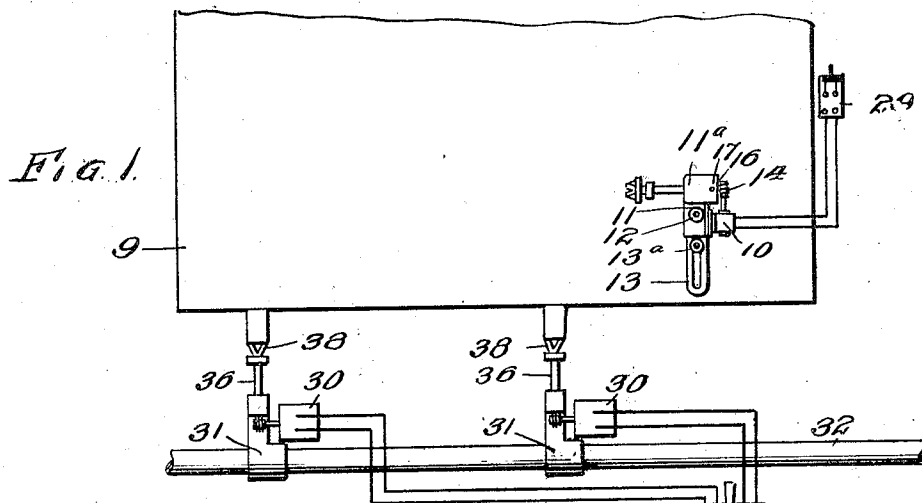


990,311.

2 SHEETS—SHEET 1.



Witnesses:

Witnesses:
Geo. L. Thom.
M. L. Morton

Inventor: 2

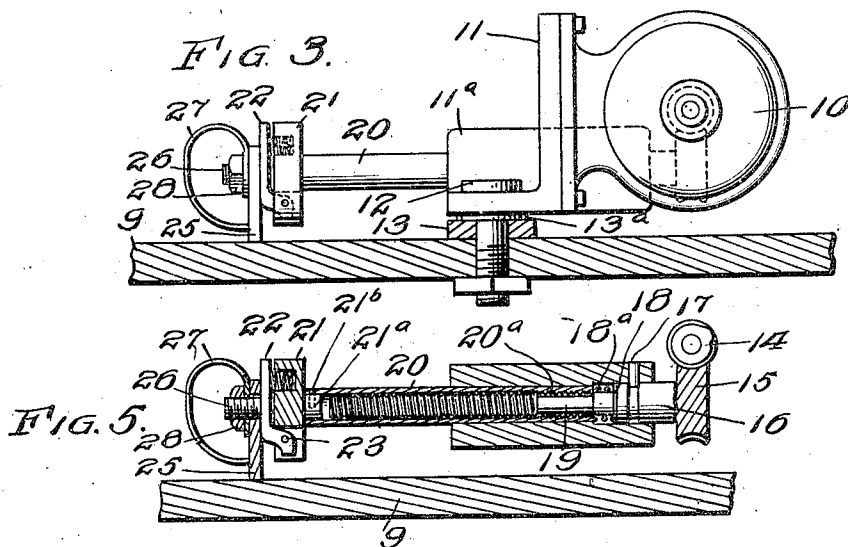
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W. H. STRATTON.
PAPER GUIDE FOR PRINTING PRESSES.
APPLICATION FILED AUG. 2, 1910.

990,311.

Patented Apr. 25, 1911.

2 SHEETS-SHEET 2.



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UNITED STATES PATENT OFFICE.

WILLIAM H. STRATTON, OF CHICAGO, ILLINOIS.

PAPER-GUIDE FOR PRINTING-PRESSES.

990,311.

Specification of Letters Patent.

Patented Apr. 25, 1911.

Application filed August 2, 1910. Serial No. 575,163.

To all whom it may concern:

Be it known that I, WILLIAM H. STRATTON, citizen of the United States, residing at Chicago, in the county of Cook and State of Illinois, have invented certain new and useful Improvements in Paper-Guides for Printing-Presses, of which the following is a specification.

This invention relates to paper guides for printing presses, and has for its object to provide improved means for adjusting the guides, whereby the adjustment may be made very exact or fine. Said means include electric devices by the operation of which the guides are moved, said devices including motors which by suitable gearing are connected to and control the movement of the guides, the motors being controlled by suitable switches. This eliminates manipulation or hand adjustment of the guides, and enables them to be very quickly and easily set, the adjustment being generally more certain and convenient in operation.

The invention is illustrated in the accompanying drawings, two forms of guides being shown.

Figure 1 is a plan view of a portion of a press with the guides in place. Fig. 2 is an enlarged plan view with a portion of the feed table showing. Figs. 3 and 4 are different side elevations of the side guide. Fig. 5 is a section of the side guide on the line 5-5 of Fig. 2.

Guides containing or embodying the invention may be attached to any desired part of the press, serving the purpose thereof. As an ordinary side guide one of the devices is secured on the upper surface of the ordinary feed table of a printing press, to guide the paper to a certain part of the printing press cylinder. As drop guides the devices will be used in pairs and secured to a horizontal shaft or rod opposite the end of the feed table, and having a method of operation known to those skilled in the art.

Referring specifically to the drawings, 9 indicates the feed table of a printing press, and 10 is a small electric motor fastened to an angle frame 11, the lower flange of which is pivoted at 12 to a slotted arm 13. The pivotal connection allows the guide to be used either right or left as desired. The arm 13 is slotted to permit adjustment of the device on the feed table, and may be set by a bolt 13^a fitting through a hole in the table.

The motor shaft carries a worm 14 which meshes with a worm gear 15 on the end of a shaft 16 which is mounted to turn in a sleeve or bearing 11^a forming a part of the frame 11. A pin 17, projecting into a groove in the shaft, prevents longitudinal movement of the latter. The shaft 16 is reduced within the bearing, to afford space for a coiled spring 18^a in compression between the shoulder of the shaft, or rather between a washer 18 thereon, and the end of a tube 20. The shaft is still further reduced as indicated at 19, to a diameter less than the inner diameter of the tube, and the remainder of the shaft within the tube is threaded. The tube is also threaded as indicated at 20^a at its inner end, that is the end toward the motor, and the remainder of the tube is not threaded, and is slightly larger than the threaded part of the shaft 16. The threaded part of the tube 20 is slightly longer than the reduced part 19 of the shaft, and when said tube by rotation of the shaft 16 is drawn in or retracted to its full extent the spring 18^a is slightly compressed, and thus tends to reengage the threads 20^a with the threads of the shaft 16 whenever said shaft is turned in a direction to advance or push the tube outwardly.

At its outer end the tube 20 is provided with a head 21, fastened thereto by means of a stud 21^a and a pin 21^b connecting the tube and stud, the latter fitting within the former. The head 21 also has a threaded stud 26 on the opposite side, which receives the guide finger or plate 25 which rests on the feed table, said guide plate being held between a spring finger 22 and a nut 26, which latter also holds a curved finger 27 which is bent over and presses at its free end against the side of the guide plate 25. The finger 22 is pivoted at 23, in a slot in the head 21, and is pressed toward the guide plate by a spring 24. This construction permits slight yielding movement or resistance of the spring 25, which prevents binding against the paper.

The device above described is illustrated particularly in Figs. 1 to 5 inclusive, and constitutes the side guide. The operation of the motor is controlled by a reversing switch 29, current being supplied from any suitable source. In the operation of the device when the motor is driven in either direction as desired, the screw shaft 16 is turned by means of the worm, and accord-

ingly the tube 20, its head, and the guide plate carried thereby, are advanced or retracted to the desired extent. If advanced too far, the tube will simply run off the threads at the end of the shaft. If retracted to the limit, the threads 20^a will run off the threads at the inner end of the shaft 16 and onto the plain part 19 of the shaft, the spring 18^a being then slightly compressed, as above described. This prevents wrecking of the device. When the motor is then reversed, the spring will cause the threads to reengage. The guide plate may thus be moved to any desired position, and a very fine adjustment is permitted.

The invention is not limited to the exact embodiment shown, but various modifications may be made within the scope thereof, and no limitation in this respect is implied.

Having thus described my invention what I claim as new and desire to secure by Letters Patent is:—

1. In a paper feed guide, the combination of a feed table, a frame pivotally mounted thereon to swing in a plane parallel to the upper surface of the table, and a motor and guide member mounted on the frame, the

guide member being operatively connected to the motor.

2. In a paper feed guide for printing presses or the like, the combination with a feed table, of an adjustable support thereon, a frame pivoted to the support, a motor on said frame, and a guide member carried by said frame for movement on the table and operatively connected to the motor for adjustment by operation of the latter.

3. In a guiding device, the combination of a screw shaft having a reduced part, a guide member, a tube fitting over the shaft and connected at one end to the guide member, and threaded at the other end to engage the threads on the shaft and arranged to run off the said threads onto said reduced part of the shaft at the limit of movement in one direction, and a spring adapted to press against said tube to reengage the threads when the shaft is reversed.

In testimony whereof, I affix my signature in presence of two witnesses.

WILLIAM H. STRATTON.

Witnesses:

H. G. BATCHELOR,
E. J. BOILEAU.