

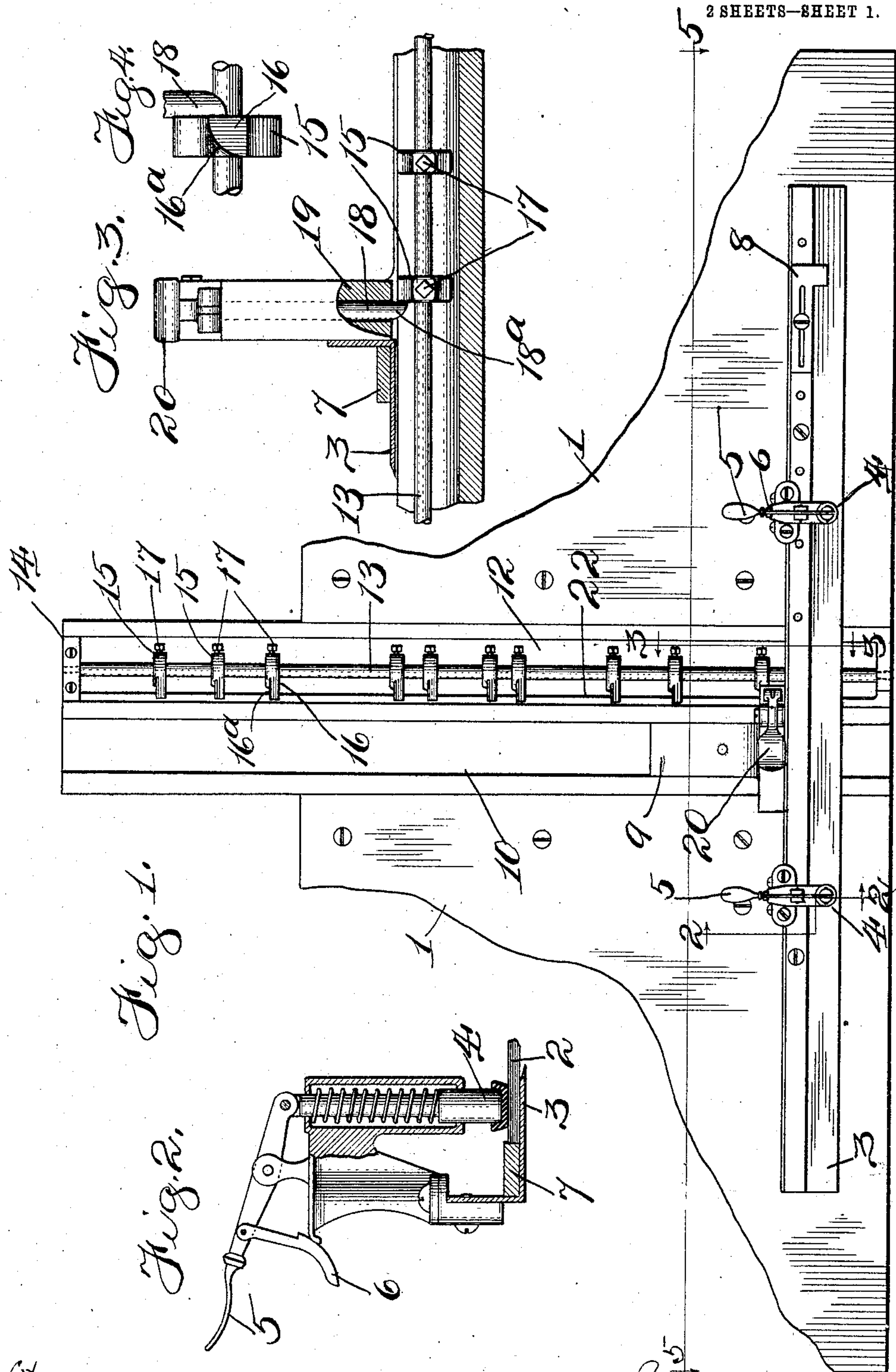
No. 785,432.

PATENTED MAR. 21, 1905.

C. S. PERKINS.
GAGE FOR PERFORATING MACHINES.

APPLICATION FILED SEPT. 12, 1904.

2 SHEETS—SHEET 1.



Witnesses:
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M. B. Allstadt -

Inventor:
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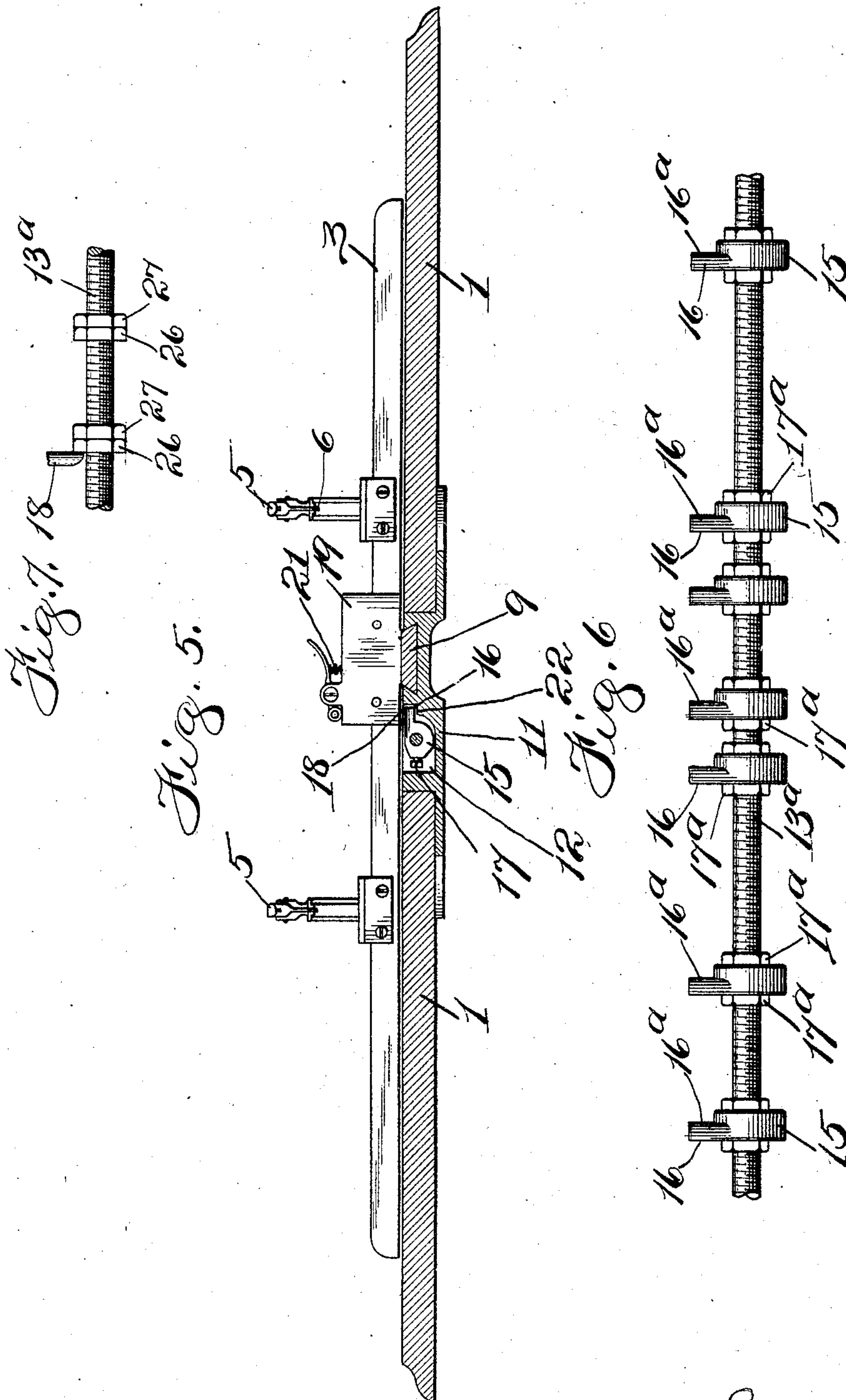
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UNITED STATES PATENT OFFICE.

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GAGE FOR PERFORATING-MACHINES.

SPECIFICATION forming part of Letters Patent No. 785,432, dated March 21, 1905.

Application filed September 12, 1904. Serial No. 224,127.

To all whom it may concern:

Be it known that I, CHARLES S. PERKINS, a 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 Gages for Perforating-Machines, of which the following is a full, clear, and exact specification.

My invention relates to that class of gages employed in connection with perforating-machines for holding the paper or other material squarely in position while it is perforated along the various lines where the perforations are required; and the invention has for its primary object to provide a simple, inexpensive, and improved mechanism whereby the gage may be quickly adjusted from one position to another for holding the paper while being perforated, and these positions may be varied at will.

With the described ends in view the invention consists in certain features of novelty in the construction, combination, and arrangement of parts by which the said object and certain other objects hereinafter appearing are attained, all as fully described in reference to the accompanying drawings, and more particularly pointed out in the claims.

In the said drawings, Figure 1 is a plan view of my improved gage for perforating-machines with a portion of the board broken away. Fig. 2 is an enlarged detail section taken on the line 2 2, Fig. 1. Fig. 3 is a similar section on the line 3 3, Fig. 1. Fig. 4 is a detail view of the locking-dog of one of the stops looking from the opposite side to that present in Fig. 3. Fig. 5 is a cross-section on the line 5 5, Fig. 1. Fig. 6 is an enlarged detail view of the dog bar or rod, illustrating a modification hereinafter described; and Fig. 7 is a still further modification thereof.

1 is a table of any suitable form upon which to rest the paper or other suitable material while it is being fed or moved under the perforating-needles of the perforating-machine (not necessary to illustrate or describe, as the same is well understood) and is usually arranged at the edge of the table 1 nearest the observer 2 opposite the edge of the table where the operator stands while working the gage. The edge of the pile of paper nearest the op-

erator is supported upon a bar 3, extending across the table and being provided with any suitable clamps 4, having operating-levers 5, whereby they may be elevated out of contact with the paper when it is desired to remove it and locked in open position by catches 6 of any suitable construction while another pile or block of paper is being inserted. The rear edge of the block of paper rests against a flange or shoulder 7, also carried on the bar 3, so as to keep the rear edge of the block straight, and the side of the block is trued up against any suitable adjustable gage 8, slidably attached to the shoulder 7, all of these elements being of the usual or any suitable construction and arrangement well understood in this art.

The bar 3 is preferably made of an angle-iron, as better shown in Fig. 2, for the sake of rigidity, and at or about its intermediate length it is mounted upon a slide 9, which runs in a way 10 and is preferably dovetailed therein, as better shown in Fig. 5, and which way is formed in a casting or member 11, on which table 1 is attached, as shown in Fig. 5, with their surfaces flush with the upper edges of the way 10, so that the lower angle of the bar 3 will hold the paper very close to the table while sliding freely thereover.

Formed in the casting or member 11 parallel with the way 10 is a channel 12, and in this channel is situated a bar or rod 13, extending longitudinally thereof, with one end removably seated in the under wall of the channel 12 and the other removably held by a detachable lock 14, secured in the opposite end of the channel 12, so that when desired the rod may be readily removed, and on this rod are situated a plurality of stops, each comprising a collar 15 and a stop portion 16, which is abrupt or squared on one side and rounded or beveled, as shown at 16^a, on the other side, and in the collar portion 15 is screwed a set-screw 17, whereby the stop may be locked on the rod 13 at any desired adjustment.

The slide 9 is provided with the locking-dog adapted to engage with the stops 16 as the slide, together with the bar 3, moves along the way 10. This locking-dog is preferably in the form of an upright pawl 18, sliding in

a suitable housing 19, mounted on the slide 9 and pivoted at its upper end with thumb-lever 20, which is fulcrumed on the housing 19 and serves as a means of elevating the dog 18 out of engagement with the stop members 16. Under one end of the lever 20 is arranged a suitable spring 21 for holding the lever elevated and the dog 18 depressed. Thus it will be seen that the slide 9 and bar 3 may be rapidly pushed in one direction or away from the operator without interference from the stops 16, but can be moved in the opposite direction only from stop to stop, the pawl or dog 18 being elevated to pass over each of the stops when the pawl strikes the square side of the stop. In going in the opposite direction, however, the pawl engages the rounded or beveled side 16^a and automatically rises over it, one side of the pawl or dog 18 being also rounded or beveled, as shown at 18^a, if desired.

One side of the channel 12 may be formed with a step or longitudinal shoulder 22, if desired, which serves as a gage for limiting the rotary motion of the stops and rod 13 and preventing the same from being pushed down out of reach of the dog 18 and for also determining the proper position of the stops should they be loosened for readjustment.

It is understood that in the operation of this machine the paper after being placed upon the table 1 with the gage-bar 3 drawn back toward the operator away from the observer, as viewed in Fig. 1, the rear edge of the block or pile of paper is placed against the shoulder 7 and then clamped in position by the clamps 4. The gage-bar 3 is then pushed to the limit of its movement over from the operator, the paper passing under the perforating-needles, and the stops 15 16 having previously been set at the proper distance apart corresponding to the distances between the lines of perforations to be produced the gage-bar 3 is then drawn toward the operator until the dog 18 engages the first one of the stops, whereupon the perforating-needles are caused to descend and produce the first lines of perforations. Then by pressing upon the thumb-lever 20 and raising the dog 18 the gage-bar may be drawn back until the next stop is encountered, whereupon the second line of perforations may be produced, and so on until the end of the series of stops is reached. Should it be desired to change the relative positions of the stops 15 16 for varying the distance between the lines of perforations, the result may be accomplished by loosening the set-screw 17 and sliding the stops along the rod 13; but since the rod 13 may be conveniently removed bodily with the stops thereon it is obvious that a number of such rods with stops fixed at the position corresponding to the lines of perforations for standard jobs would constitute a more convenient way of

changing the machine to suit various jobs than to alter the stops themselves.

In Fig. 6 of the drawings I have shown a modification consisting in the employment of a screw-threaded rod 13^a as a substitute for the rod 13 and nuts 17^a on both sides of each stop as a substitute for the set-screw 17, the collars 15 of the stops being loose—that is, not screw-threaded on the rod 13^a—so that they may be quickly adjusted.

In the modification shown in Fig. 7 the collars 15^a and stop portions 16 are omitted and in their stead I employ two jam-nuts 26 27, one of which has its bottom or square portion turned toward the straight side of the dog or pawl 18 and itself serves as a stop with which the dog or pawl directly engages, the other nut, 26, serving merely as a locking means for the nut 27 and as its upper or round side turns toward the rounded or beveled face of the dog 18, so that the latter will readily pass over it.

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

1. In a perforator-gage the combination of a gage-bar, means thereon for holding the paper, a slide upon which said bar is mounted, a table over which said bar travels for supporting the paper, a series of stops arranged below the surface of the table and over which said bar crosses, and means connected with said bar for locking it against any of said stops.

2. In a perforator-gage the combination of a table, a gage-bar slidable thereover, means on said bar for clamping and holding the paper, a rod arranged under said bar holding the surface of the paper, a series of stops on said rod and means on said bar for engaging said stops.

3. In a perforator-gage the combination of a table, a gage-bar, means on said bar for clamping the paper, a bodily-removable series of stops arranged below the surface of the table under said bar, and means in connection with said bar for engaging said stops.

4. In a perforator-gage the combination of a table, a gage-bar movable thereover, a rod arranged below the surface of the table and under said bar, a series of collars movable longitudinally on said rod and each having a stop member, means for adjustably attaching said collar to the rod and means connected with said gage-bar for engaging said stop members.

5. In a perforator-gage the combination of a table, a gage-bar movable thereover, a rod arranged below the surface of the table, a series of stops mounted on said rod, a longitudinal shoulder or support for the ends in said stops and along which said stops are slidable and means in connection with said gage-bar for engaging said stops.

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