

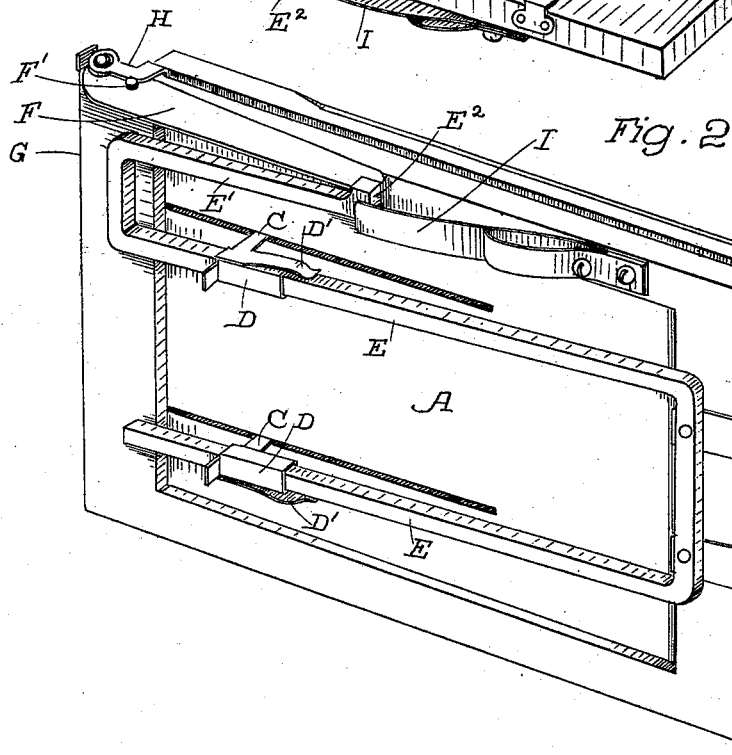
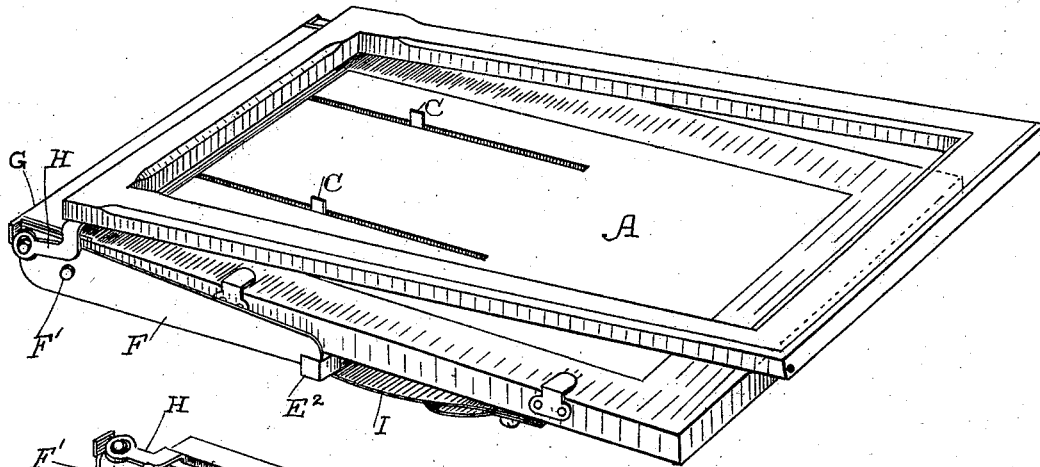
(No Model.)

L. M. BANNAN.
GAGE FOR MANIFOLDING APPARATUS.

No. 522,447.

Patented July 3, 1894.

Fig. 1.



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UNITED STATES PATENT OFFICE.

LEWIS M. BANNAN, OF SAN FRANCISCO, CALIFORNIA.

GAGE FOR MANIFOLDING APPARATUS.

SPECIFICATION forming part of Letters Patent No. 522,447, dated July 3, 1894.

Application filed October 10, 1893. Serial No. 487,764. (No model.)

To all whom it may concern:

Be it known that I, LEWIS M. BANNAN, a citizen of the United States, residing in the city and county of San Francisco, State of California, have invented an Improvement in Gages for Manifolding Apparatus; and I hereby declare the following to be a full, clear, and exact description of the same.

My invention relates to a gage which is especially applicable to manifolding or letter multiplying devices, such as the mimeograph.

It consists of gage points projecting and adjustable through slots or channels in the bed, and a mechanism by which they are retracted when the frame is closed, after the sheets are in place.

It also consists in certain details of construction which will be more fully explained by reference to the accompanying drawings, in which—

Figure 1 is a view showing my invention applied to a mimeograph printing apparatus, showing the upper frame partly open. Fig. 2 shows the mechanism on the bottom of the frame.

The object of my invention is to provide easily adjustable gages against which the sheets to be printed upon are placed, while the frame is open, and a means for retracting the gage points as soon as the frame is closed for the purpose of reproducing the letter or other matter.

A is the bed or table of the apparatus which in the present case is shown to be of that class known as the mimeograph. This bed has slots or channels made in it, and through these slots project the gage pins C. These gage pins or plates are formed or connected with slides D which fit upon bars E beneath the bed A of the apparatus as shown. These slides have an elastic side or springs D' which are adapted to press against the sides of the bars E with a sufficient tension to hold the slides and the upwardly projecting gage pins at any point where they may be placed, and at the same time to allow these slides and pins to be easily moved to fit the work to be done. It will be manifest that as many of these adjustable pins and slides may be employed as may be desired. I have found that two, mov-

able longitudinally to receive the upper edge of the sheet, and one to form a side gage, are sufficient for most work.

The bars E upon which the slides move are hinged or pivoted to the lower edge of the frame within which the bed is contained, so that the opposite ends are movable about the hinge points. One of these bars is bent around in rectangular form so that an arm E' extends along beneath one side of the frame of the bed, and has a projection or spur E² extending slightly beyond the edge of the frame.

F is a thin plate of metal, one end of which rests upon the projecting spur E², or is otherwise connected with it, and the other end is pivoted to the hinge pin of the upper part of the frame G. The hinges H of the upper part of the frame extend a little distance from the hinge point toward the lower end, and are then bent up and connected with this upper part of the frame as shown. Upon the plate F is a projecting pin or spur F' in such a position that when the upper frame is closed down upon the lower one, the extension of the hinge engages this pin and presses it down.

The plate F, by reason of its fulcrum point and the long arm which engages the projection E², is depressed about its hinge point when the frame is closed, and thus acts to depress the spur E², and simultaneously the remainder of the hinge frame E, thus carrying the upwardly projecting gage points down below the surface of the bed so that the work of printing the copy is carried on in the usual manner without injury to the stencil paper, or forming contact with these gage points. As soon as the frame is raised, the elastic spring I which acts upon some part of the bars E, lifts them up and again projects the gage points up through the bed-plate.

It will be seen that by this construction, the sheets of paper are rapidly placed in exact position against the gage points, and as soon as this is done, and the frame closed, the points being of no further present service will be retracted beneath the bed and the rest of the operation of printing can be carried on without damaging the sheets or other part of the copying mechanism.

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

1. The combination with the longitudinally slotted bed and the hinged frame, of a gage adjustable longitudinally of and adapted to project through said slot, and means for automatically retracting and projecting the said gage upon the opening and closing of the said hinged frame, substantially as herein described.

2. The combination with the longitudinally slotted bed, and the hinged frame, of a gage adjustable longitudinally of and adapted to project through said slot, a movable bar or carrier below the bed and on which said gage is mounted and means for automatically moving the bar or carrier to project and retract the gage by the opening and closing respectively of the said hinged frame, substantially as herein described.

3. The combination with the longitudinally slotted bed and the hinged frame, of a movable spring pressed bar or gage-carrier beneath the bed, and operated against the action of its spring by the closing of the said hinged frame, and a gage carried by the said bar or carrier and adjustable thereon to register with any portion of said bed slot, substantially as herein described.

4. An impression bed having slots or channels made through it, movable bars extending beneath the channels of the bed, slides fixed to said bars and adjustable thereon, and gage points projecting upward from the slides through the slots and above the surface of the bed, whereby the sheets are properly adjusted, and means for depressing the bars and gage points after the sheets are placed, substantially as herein described.

5. The impression bed having channels made through its surface, bars extending be-

neath the bed hinged at one end and having spring-actuated slides fitted to them, with upwardly projecting gage points extending through the slots and adjustable with relation to the surface of the bed, a hinged frame adapted to close above the bed, a lever fulcrumed to the side of the bed having one end engaging a projection from the gage carrying bars, and a pin adapted to be engaged by the hinged frame when the latter is closed over the bed whereby the bars and the gage pins carried by them are depressed below the surface of the bed by the closing of the upper frame, substantially as herein described.

6. A bed adapted to receive the sheets upon which the copy is to be taken and having slots or channels made through its surface, bars extending in line beneath said bed and hinged to one end of its frame, adjustable slides fitting said bars having upwardly projecting gage pins extending through the slots in the bed to a point above its surface, whereby the sheets are accurately placed upon the bed, a frame hinged to the bed and adapted to close down over it after the sheets are in place, a lever hinged to one side of the bed having a pin which is engaged by the hinged frame when the latter is closed, the opposite end of the lever engaging a spur from the gage carrying bars whereby the gage pins are depressed beneath the surface of the bed when the hinged frame is closed, and a spring whereby the bars and gage pins are elevated when the frame is open, substantially as herein described.

In witness whereof I have hereunto set my hand.

LEWIS M. BANNAN.

Witnesses:

S. H. NOURSE,
J. A. BAYLESS.