2 Sheets—Sheet 1.

E. O. BENNETT.

Paper-Bag Machine.

No. 225,322. Patented Mar. 9, 1880.

Fig. 1.

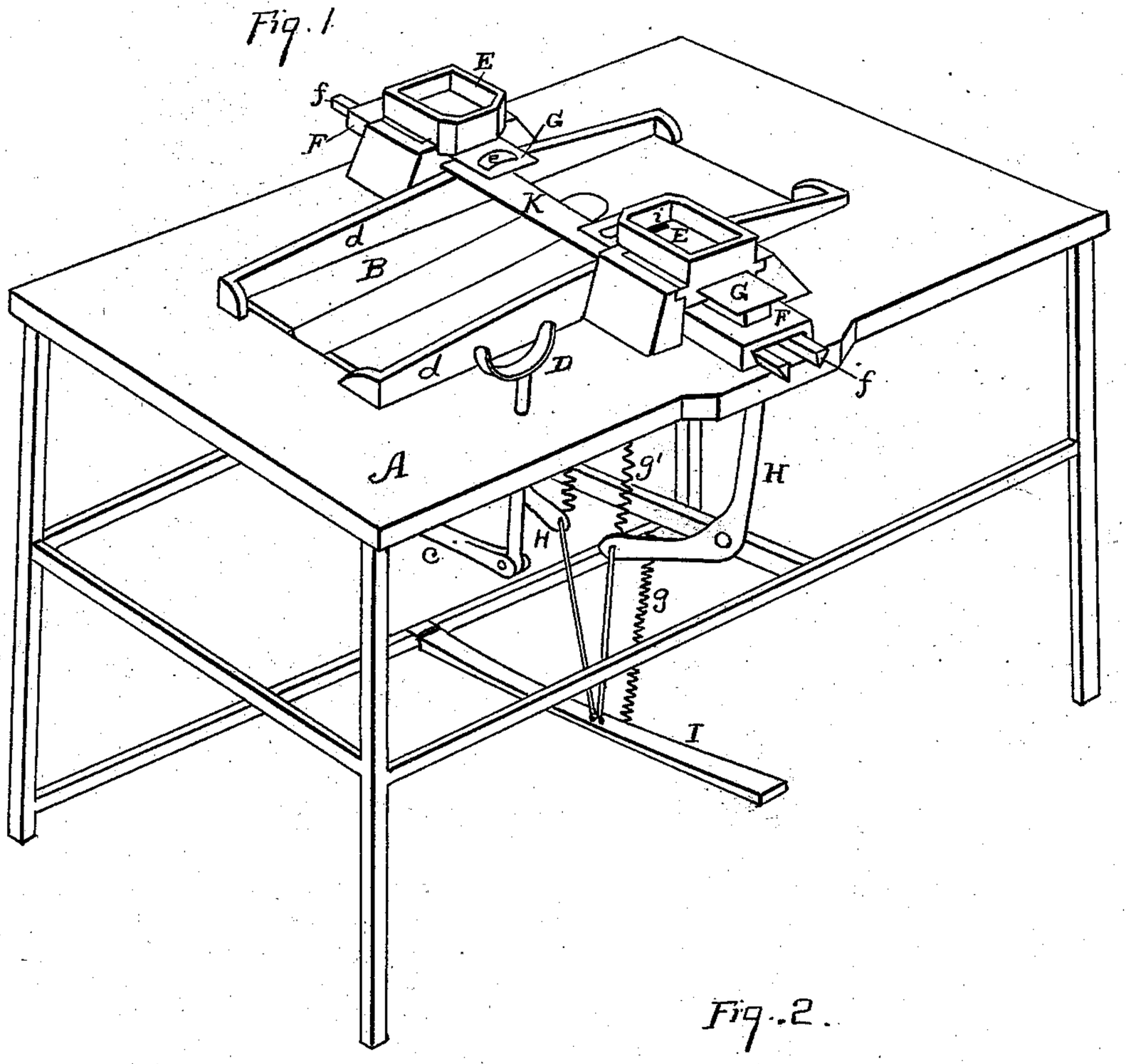
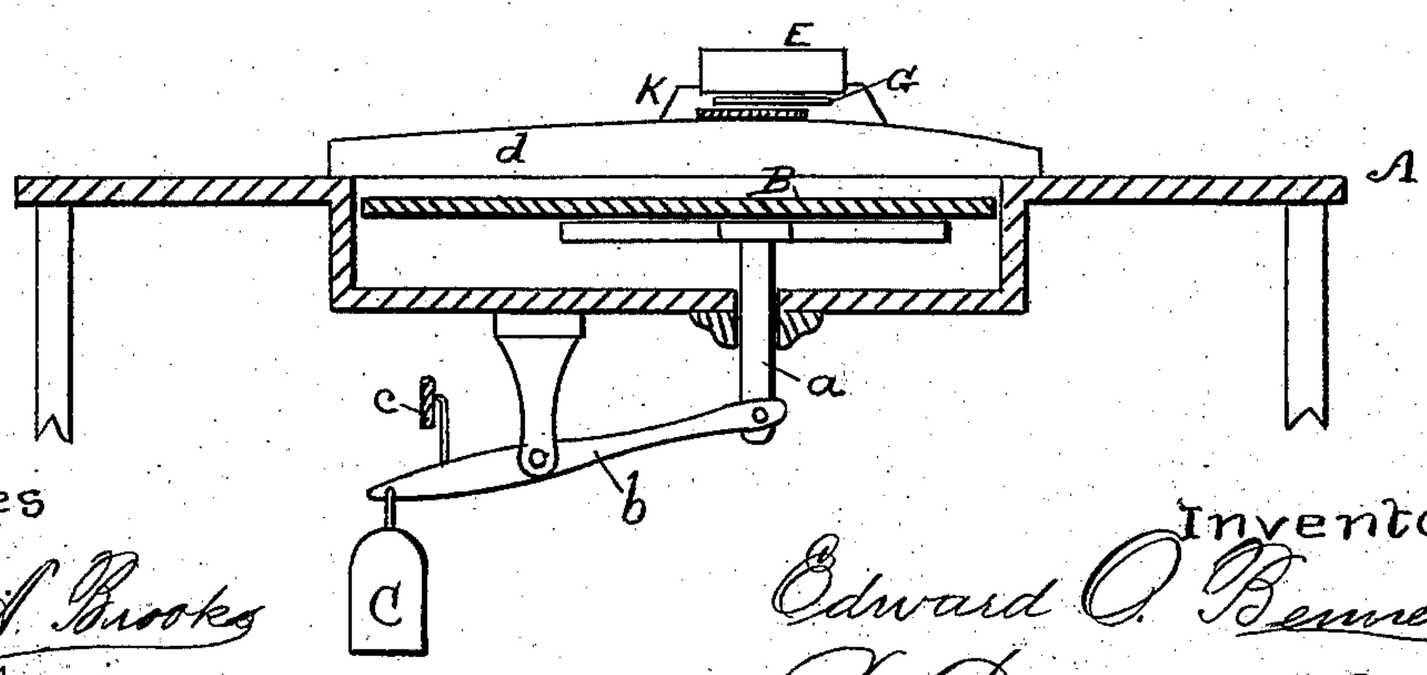


Fig. 2.



Witnesses

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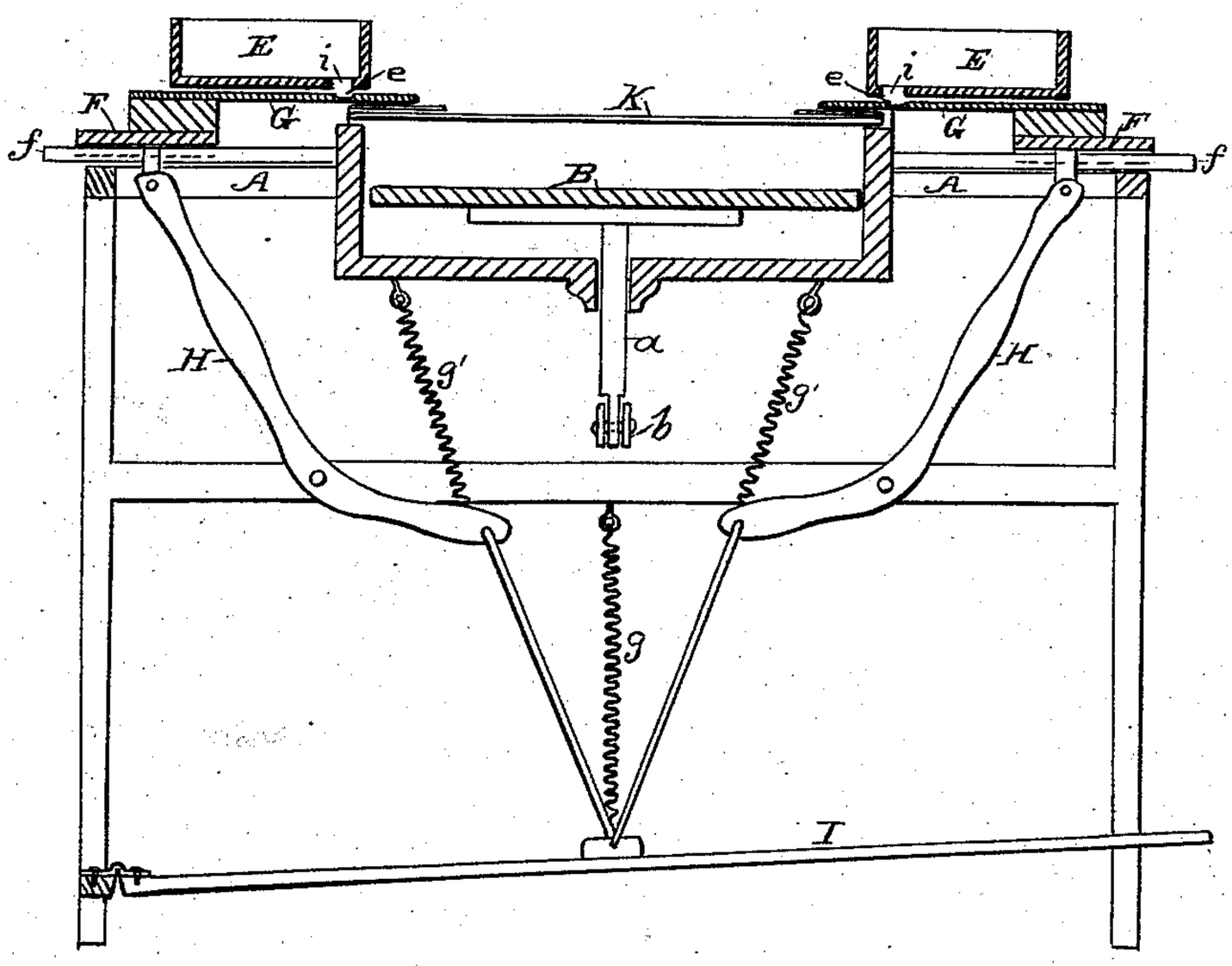
2 Sheets—Sheet 2.

E. O. BENNETT.

Paper-Bag Machine.

No. 225,322. Patented Mar. 9, 1880.

Fig. 3.



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UNITED STATES PATENT OFFICE.

EDWARD O. BENNETT, OF SANTA CLARA, CALIFORNIA.

PAPER-BAG MACHINE.

SPECIFICATION forming part of Letters Patent No. 225,322, dated March 9, 1880.

Application filed November 18, 1879.

To all whm it may concern:

Be it known that I, EDWARD O. BENNETT, of the town and county of Santa Clara, and State of California, have invented new and useful Improvements in Folding and Pasting the Bottoms of Satchel Paper Bags; and I do hereby declare that the following is a full, clear, and exact description of the same, reference being made to the accompanying drawings.

My invention relates to certain improvements in that class of machines for folding and pasting the bottoms of the already-prepared tube, and at the same time supplying the requisite amount of paste for securing the edges, and also in the mechanism whereby this device is operated, and for regulating the pressure on the pile of bags, as is more fully described in the accompanying drawings.

Figure 1 is a perspective view of my invention. Fig. 2 is a longitudinal section. Fig. 3 is a transverse section.

A table, A, is provided with a centrally-placed vertically-moving section, B, which fits in a box or chamber forming part of the said table and serving as a guide. A rod, *a*, is secured to the bottom of this table, and is connected with the lever *b*, at the opposite end of which is a weight, C. Another lever, *c*, connects with the lever *b*, and at its opposite end is a rod projecting through the table and having an arm-rest, D, upon it, as shown. As pressure is applied downward on the arm-rest the table-section B is pressed downward, and when pressure is relieved the weight C pushes it upward, for the purpose hereinafter described. A plate, K, extends across above the section B and keeps the pile of paper bags lying on said section in position between itself and the movable section.

On each side of the table, outside the combings or ridges *d*, inclosing the movable section, are placed paste-boxes E, in which liquid paste is placed. Under these boxes are slides or carriers F, moving on dovetailed guides *f*, and which carry the paste carriers or plates G, these plates having grooves *e* formed on the upper surfaces of these ends, as shown. Oppositely-placed levers H under the table are connected by rods to the treadle I, and their upper ends are connected with the bottoms of the slides or carriers F. Coiled springs *g g'* secured to the levers and treadle serve to draw them back, and thus draw back the slides and paste-carriers, as hereinafter described.

The operation of this device is as follows: The paper cylinder for forming my satchel-bags is first formed in an endless roll on another machine. The pieces are cut in suitable lengths and laid flat, one above another, in a pile on top of the movable section B, the plate K being above and keeping them in position. The weight on the end of the lever keeps a steady upward pressure on the pile of paper of which the bags are to be made, so that they are held tight under the plate K. The operator takes hold of the upper and lower center of the bottom of the bag and draws them apart in the direction of the length of the table. He then puts his foot on the treadle, and the levers throw the two opposite slides toward each other. As these slides move forward the paste-carriers G push the sides of the bottom of the bag toward each other and down onto the plate K. The slot or groove at the end of each carrier has previously become filled with paste, which has entered it from the respective paste-boxes through the slots *i* in the bottoms of said boxes. These paste-carrying grooves are then in the center of the bottom of the bag. The operator then folds over those ends of the bottoms which he has previously separated, folding them down on the top of the paste-carrying groove in the sliding plates G. By removing his foot from the treadle the coiled springs draw the levers up, thus drawing back the slides and plates G. The plates having deposited a certain amount of paste on the under side of the folded ends of the bag, as the said plates are then drawn back these ends are pressed down and the bottom of the bag closed tightly. The left arm of the operator being in the arm-rest, a slight downward pressure will draw the table-section holding the pile of bags down slightly, so as to relieve the top bag from the pressure, and it may be readily drawn from under the plate K and thrown to one side to dry.

It will be seen that the plate K forms a guide for creasing the first fold when the bag or tube is opened with the hands, and is made interchangeable. The paste-carrying plates G also

serve as guides or forms in folding. These plates G are removable and interchangeable for different-sized bags, so as to regulate the size of the bags in order to make several sizes of bags in one machine.

For narrow bags the bottoms are, of course, proportionately small, and smaller plates or forms are necessary. With large bags the plates are made wider, so that when folding over the edges said plates form suitably-sized guides for the fold to regulate the width of bottom. By this means bags of various sizes may be made in the same machine, and the plates G serve as paste-carriers, guides, and forms.

A perfect satchel-bottomed bag is thus formed with very little hand-work. The operation of folding and pasting is performed quite rapidly, and there is no danger of the paste being scattered about over any part of the bag except that where it is necessary to be applied.

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

1. The plates G, provided with the grooves or hollows *e* for holding paste, and adapted to move forward between the folds and deposit the paste upon the under side of the upper fold, substantially as herein described.

2. In combination with the reciprocating folding plates G, with their paste-carrying grooves *e*, the paste-boxes E, with their slots *i*, whereby the said grooves are automatically filled with paste at each movement of the plates, substantially as herein described.

3. The removable plates G, adapted to be interchangeable on various sizes, and moving forward so as to form the fold, whereby the width of the bottom is regulated according to the size of the plate, substantially as herein described.

4. The plates G, having grooves or hollows *e* for holding paste, said plates being interchangeable and removable, and adapted to move forward between the folds and deposit the paste, in combination with the removable and regulable plate K, whereby the size of both folds is regulated and various-sized bags made on the same machine, substantially as herein described.

5. In combination with the plates G, with their grooves *e*, and the boxes E, with their slots *i*, the slides F, levers H I, and springs *g g'*, whereby the paste-carrying plates G are returned under said boxes automatically for a fresh supply, substantially as herein described.

6. In combination with the pasting-table A, the movable section B, with its levers *b c*, weight C, and arm-rest D, and the holding-plate K, whereby the said section is regulated and the pressure on the pile of bags maintained or relieved at will, so as to hold the pile or release a single one, substantially as herein described.

In witness whereof I have hereunto set my hand.

EDWARD O. BENNETT.

Witnesses:
F. A. WADDOCK,
AMBROSE CARTER.