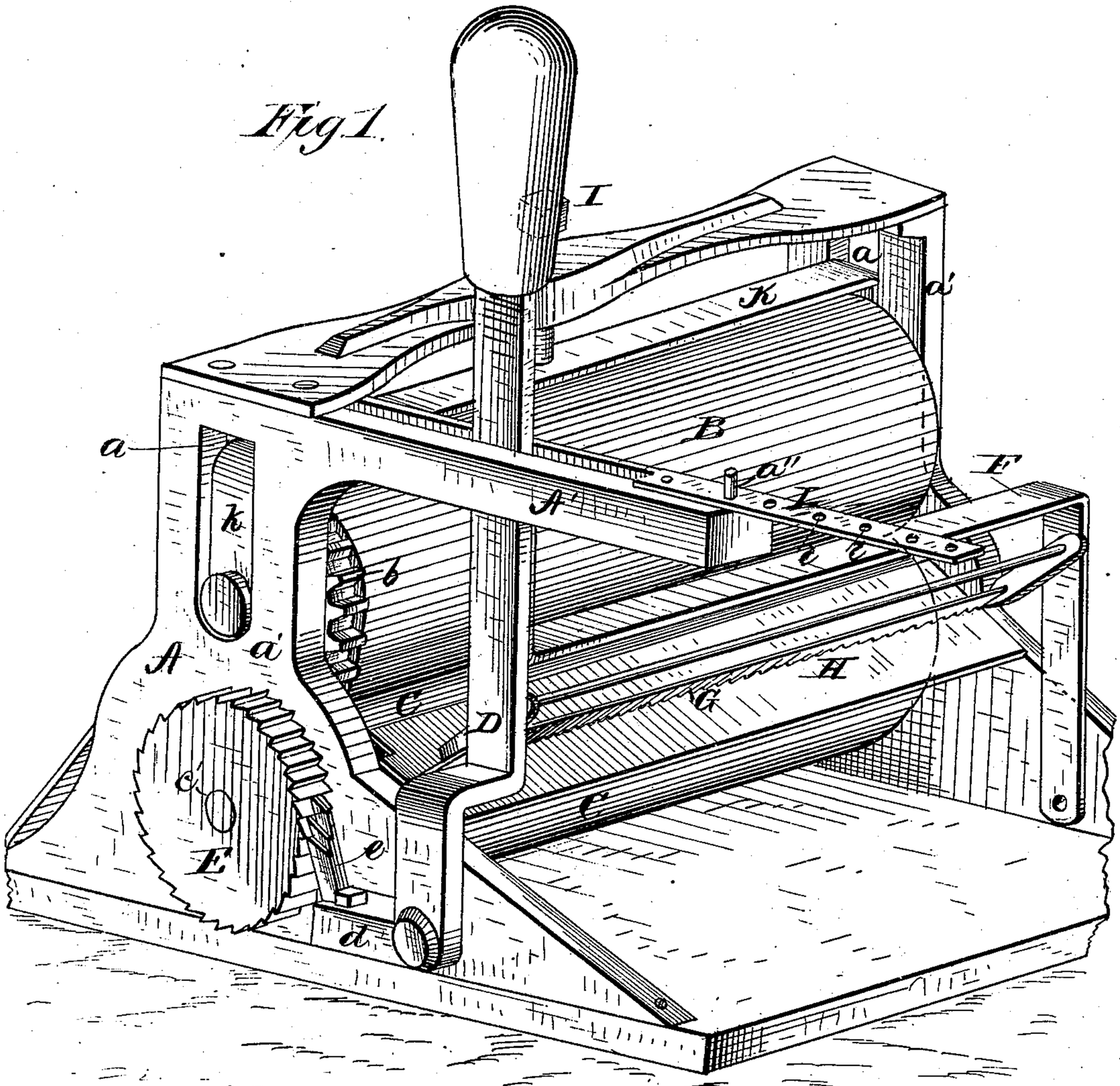
(No Model.) 2 Sheets—Sheet 1.

R. B. & J. C. COPELAND.

Plaiting Machine

No. 237,822. Patented Feb. 15, 1881.

Fig 1.



Witnesses.
Franck L. Durand
George Cornell.

Inventor.
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by L. Deane.
their Atty.

(No Model.) 2 Sheets—Sheet 2.

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Plaiting Machine

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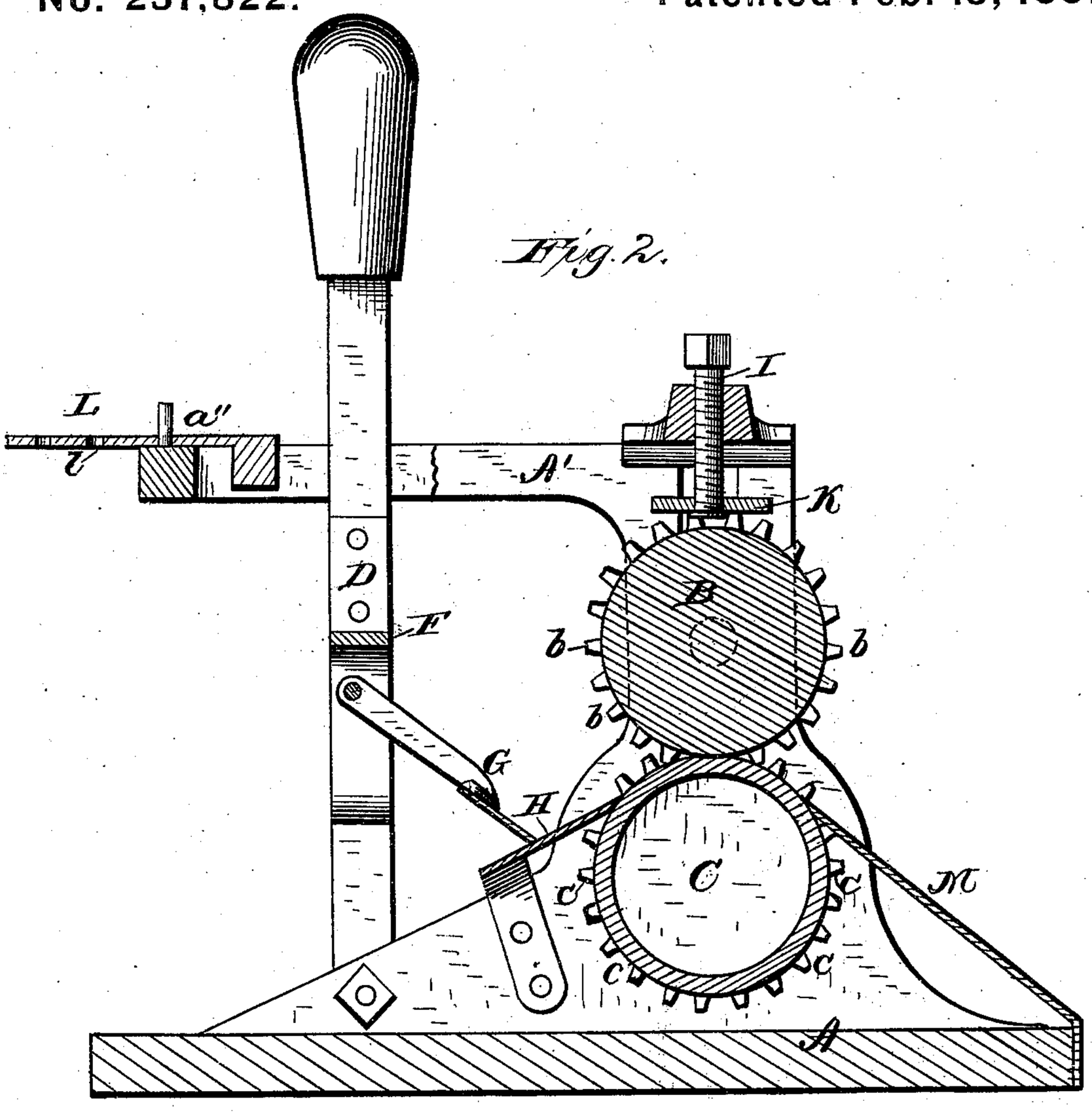
Fig. 2.



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UNITED STATES PATENT OFFICE.

ROBERT B. COPELAND AND JAMES C. COPELAND, OF WILLIAMSPORT, PA.

PLAITING-MACHINE.

SPECIFICATION forming part of Letters Patent No. 237,822, dated February 15, 1881.

Application filed December 4, 1880. (No model.)

To all whom it may concern:

Be it known that we, ROBERT B. COPELAND and JAMES C. COPELAND, citizens of the United States, residing at Williamsport, in the county of Lycoming and State of Pennsylvania, have invented certain new and useful Improvements in Plaiting-Machines; and we do hereby declare the following to be a full, clear, and exact description of the invention, such as will enable others skilled in the art to which it appertains to make and use the same, reference being had to the accompanying drawings, and to letters or figures of reference marked thereon, which form a part of this specification.

Figure 1 is a view in perspective of a device embodying the present invention. Fig. 2 is a view in central cross-section of device shown in Fig. 1.

The object of the present invention is to produce a very simple and effective machine for plaiting dress-goods or any like material; and the novelty consists in the means by which this is accomplished, all as will now be more fully set out and explained.

In the accompanying drawings, A denotes the supporting-frame of this machine, and in suitable vertically-oblong slots, *a*, in the two uprights *a'*, on each side, the upper cylinder, B, is journaled. On one end of this cylinder are cogs *b*, which mesh with cogs *c* on the end of the lower cylinder, C, which is also journaled between the two uprights of the frame A, and so placed as to come directly under the cylinder B. Intermittent motion is imparted to these cogs *b* and *c* by means of the lever D, pivoted to the base of the frame A, and connected by its hinged arms *d* with ratchets *e*, which take into the teeth on the spur-wheel E, fixed outside of the standard *a'* of the frame A, upon the end of the projecting axis *c'* of the lower cylinder, C. Thus cylinders B and C can be revolved simultaneously, but in opposite directions.

Upon the inside of the lever D is fixed one end of the frame F. The other end of the said frame being pivoted at the opposite and lower side of the supporting-frame A, it will have back-and-forth movement as the said lever is operated. The ends of the crimping-blade G are pivoted to this frame and to the lever respectively, so that the motion of the lever is imparted to the crimper. Thus the serrated or roughened edge of this blade or crimper is caused to move back and forth on the smooth surface of the lower cylinder, C.

The cloth to be crimped is fed on apron H and between the edge of the crimper and the cylinder C, and thus, as the lever is operated, the cloth will be taken up and creased or plaited by the movements of the blade, and then, being passed between the rollers, will receive the required pressure to retain said plates in proper form.

The gage of the distance between the cylinders B and C is fixed by means of set-screw I, working upon the bow K, the bent ends *k* of which press on the axis of the cylinder B.

The lower cylinder, C, is hollow, and can be heated by hot-metal cylinders, or by gas or oil burners.

The sweep or length of movement of the lever D may be regulated by passing pins through the frame or slotted arm A', in which the lever moves; or the cap-piece L may be used to fix the length of the open part of this slot by means of pin *a''*, which can be fitted into any desired hole *l* of said piece. Any suitable guide may be employed to keep the goods in shape as they are being fed up for crimping.

The plate or apron M, at the rear and behind cylinder C, will guide away the cloth after it is crimped or plaited, and also prevent its coming in contact with the machine.

Having thus described our invention, what we consider new, and desire to secure by Letters Patent, is—

1. In a plaiting-machine substantially as described, the combination of frame A, in which are journaled the cylinders B and C, provided respectively with cogs *b* and *c*, with lever D, which moves in arm A' of the machine, pawls *e*, wheel E, and crimper G, pivoted to said lever, substantially as and for the purposes set forth.

2. In a plaiting-machine, in combination with the lever D and crimper G, pivoted thereto, the graduated guide-plate L to regulate the stroke or sweep, substantially as set forth.

3. In a plaiting-machine, the combination of the hollow cylinder C, adapted to be heated, and upper cylinder, B, which is regulated by bow K and set-screw I, as described, with lever D and the intermediate mechanism frame F, crimper G, and apron H, substantially in the manner and for the purposes set forth.

In testimony whereof we affix our signatures in presence of two witnesses.

ROBERT B. COPELAND.
J. C. COPELAND.

Witnesses:
THOMAS W. LLOYD,
JAMES O. PARKER.