

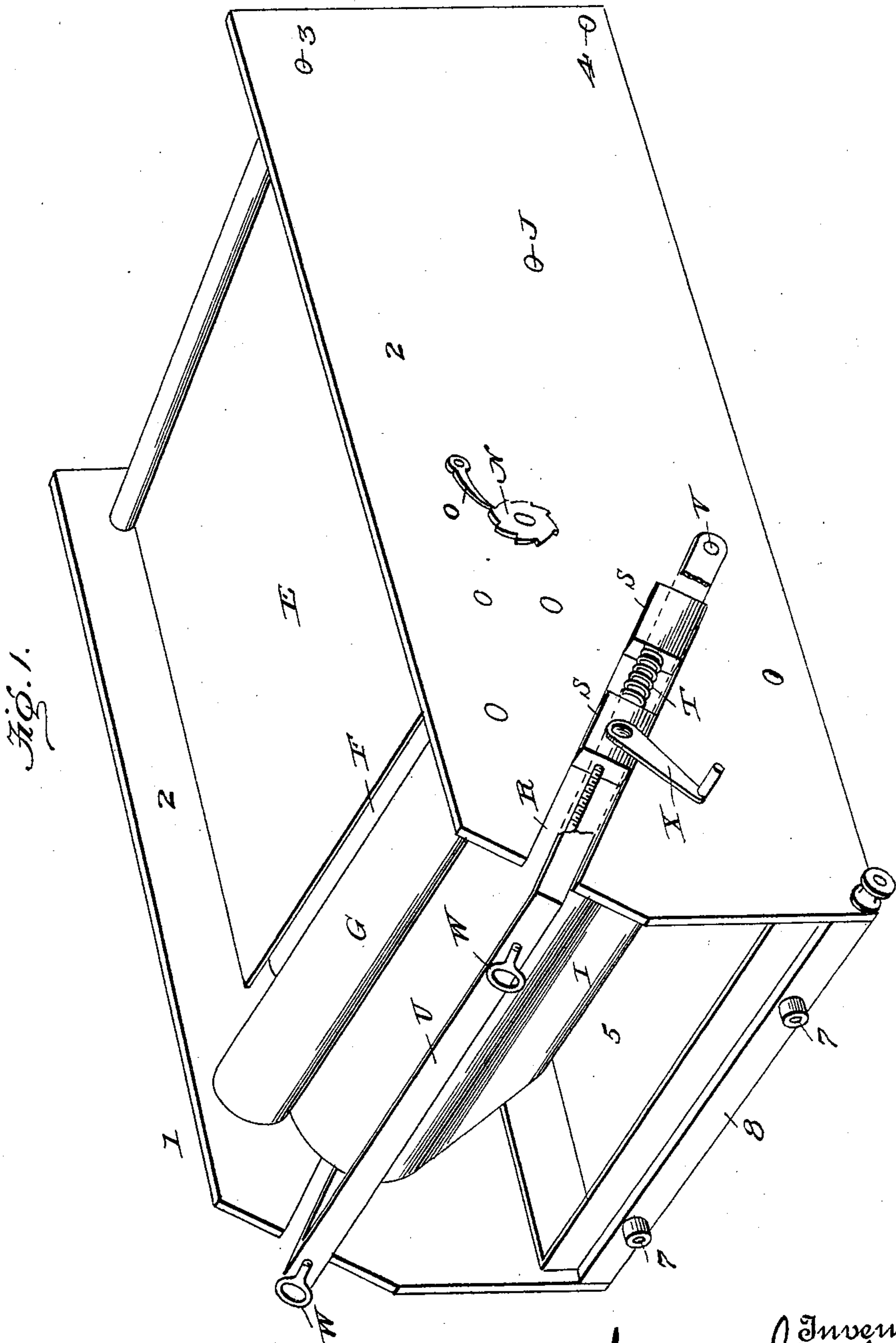
(No Model.)

3 Sheets—Sheet 1.

C. A. GOODWIN.
COPYING PRESS.

No. 583,571.

Patented June 1, 1897.



Witnesses
J. A. Hillson
Edmund H. House.

Inventor
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(No Model.)

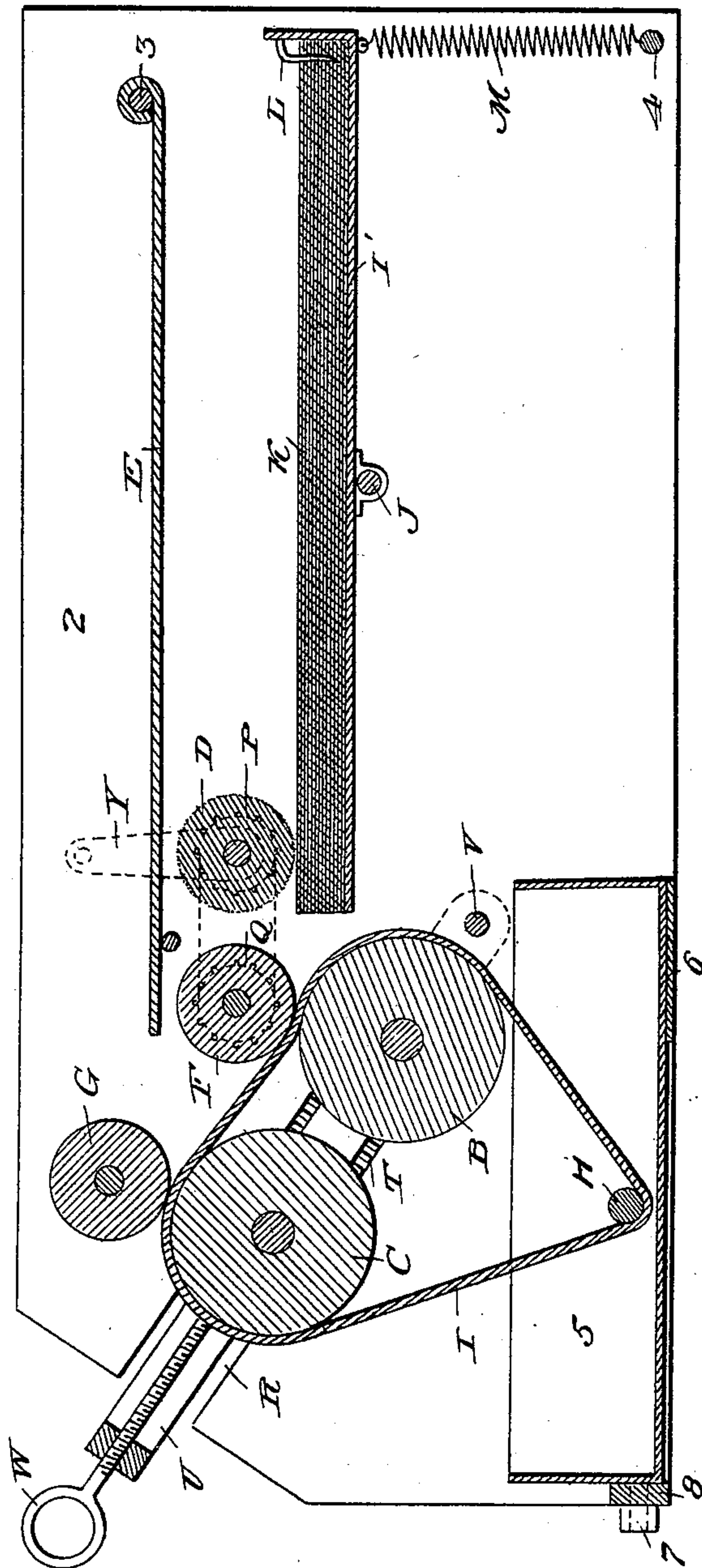
3 Sheets—Sheet 2.

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Witnesses

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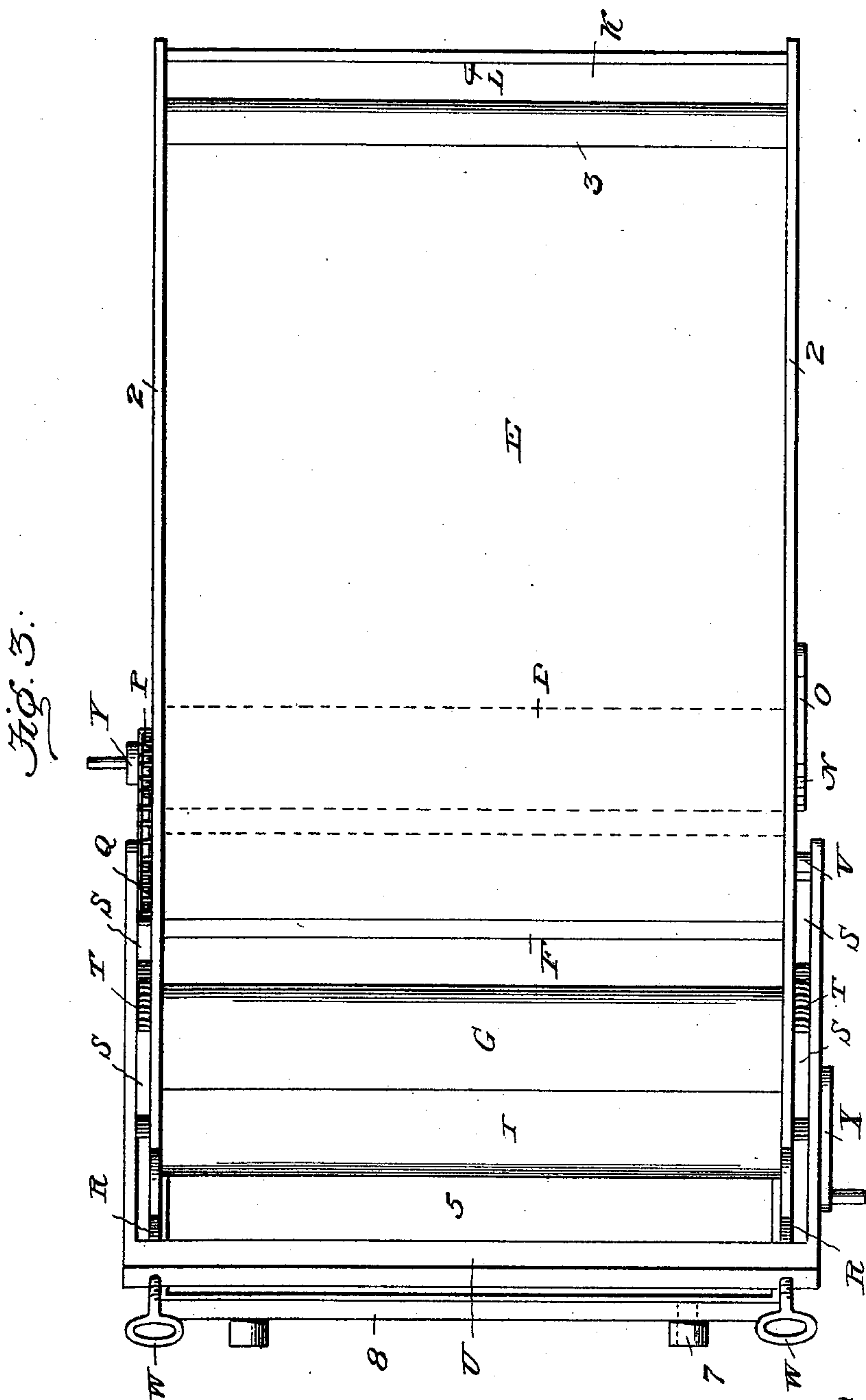
(No Model.)

3 Sheets—Sheet 3.

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COPYING PRESS.

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UNITED STATES PATENT OFFICE.

CHARLES A. GOODWIN, OF CHICAGO, ILLINOIS.

COPYING-PRESS.

SPECIFICATION forming part of Letters Patent No. 583,571, dated June 1, 1897.

Application filed December 19, 1896. Serial No. 616,259. (No model.)

To all whom it may concern:

Be it known that I, CHARLES A. GOODWIN, 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 Letter-Copying Presses; and I do 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.

My invention relates to a letter-copying press; and the object of the invention is to provide a device of this character by means of which the attendant may feed letters to the press from a table and conduct the letter, with a sheet of copying-paper, such as tissue-paper, through pressure-rollers, which will impress upon the tissue-paper the contents of the letter.

A further object is to provide a machine which may also be used for the purpose of giving to imitation type-writer printing a press-copied effect.

With these objects in view the invention consists of certain features of construction and combination of parts, as will hereinafter be fully set forth, and shown in the drawings.

In the accompanying drawings, Figure 1 is a perspective view of my improved copying-press with the letter-table elevated to show the interior construction and arrangement of parts. Fig. 2 is a longitudinal vertical sectional view through the entire press, and Fig. 3 is a top plan view.

In the drawings, 1 denotes the frame of the press, which consists of two side pieces 2, connected together by upper and lower cross-rods 3 and 4, respectively. At the front of the press is a water receptacle or pan 5, which has its rear end supported by a cross-bar 6, and which is provided at its front end with screw-threaded studs 7, clamped to a cross-bar 8, located between the front ends of the side pieces of the frame. This bar 8 is clamped to the side pieces by set-screws which when withdrawn permit of the removal of the pan.

H is a roller journaled in the pan, and B F are coöperating rollers journaled above the pan in the side pieces of the frame, and C G are coöperating rollers journaled in the side pieces in advance of the rollers B F. A

moistening-belt I is roved around rollers B C H and passes beneath and is in contact with rollers F and G.

J denotes a rock-shaft which is journaled in the sides of the frame of the machine near its rear end, and supported upon this shaft is a tray I', adapted to contain the tissue-paper used in making a press-copy. The tissue-paper is represented by the letter K, and consists of cut sheets, which are secured at the rear of the tray in any suitable manner and as shown by the hook L.

A roller D is journaled in the side pieces of the frame immediately above the tray I', and its periphery is provided with a roughened rasping-surface, shown in the present instance as emery. The top sheet of the paper in the tray is held in frictional contact with this roughened roller by a spring M, secured to the rear end of the tray at one end and at the other end to the lower cross-rod 4.

It is evident that when the roller D is rotated the top sheet of the bundle of paper will be separated from the other sheets and fed to the rollers B F and the belt H, as hereinafter described.

In order to prevent the accidental rumpling or disarrangement of the paper in the tray by the reverse rotation of the frictional roller D, I provide one end of the said roller with a ratchet-wheel N, the teeth of which are engaged by a gravity-pawl O, so that it is impossible to rotate the roller in a reverse direction. The other end of the roller is provided with a sprocket-wheel P, which is connected to a similar wheel Q, secured on the shaft of the roller F, so that when the roller F rotates the motion will be transmitted to the roller D.

In order to secure the proper friction between the rollers C G and B F, I provide the following construction: The front ends of the side pieces of the frame are provided with inclined ways R and the trunnions of the rollers B C are mounted in blocks S, which ride in said ways. Springs T are interposed between the blocks and tend to force the rollers F B and C G in frictional contact. A yoke U is pivoted on a shaft V, extending through the frame of the machine, and has at its upper end two set-screws W, which are adapted to be worked in and by means of

which the tension of the springs is increased to obtain a corresponding increase of friction between the cooperating rollers.

E denotes a letter-table which has its rear end hinged to the cross-bar 3, so that the table may be tipped back to gain access to the interior of the press for the purpose of repair or replenishing the tray with paper.

X denotes a crank which is secured to the end of the trunnion of the roller C and by which the desired rotation is imparted to the rollers and movement to the moistening-belt.

In operation, when it is desired to press-copy several letters they are placed upon the top of the table E and by rotating the wheel C by its crank X the moistening-belt will be moved around its supporting-rollers and the frictional roller D will also be rotated, owing to its sprocket connection with the roller F.

This movement will cause the roller D to separate the top sheet within the tray and feed it to the belt H as it passes between the rollers B and F. The paper will then become moistened and all excess of water will drip back into the pan, while the paper and the belt will travel forwardly. The operator, as soon as he sees the edge of the paper pass from beneath the roller F, slides the letter to be copied out on top of the paper, and it and the letter are conducted to the pressure-rollers C and G, which transfer the letter to the tissue-paper.

Should the sprocket-and-chain connection between the rollers D and F become disarranged or damaged or should anything happen by which the motion of the roller F will not be imparted to the roller D, I may rotate the roller D independently by means of a crank Y.

When it is desired to simply give to printed imitation type-writer letters a press-copy effect, the sprocket-chain is removed and the letters are fed from the table between the rollers F B and G C, the belt moistening the paper and causing a slight blur to the ink.

Having thus described my invention, what I claim is—

1. In a letter-copying press, the combination with the frame, of a pivoted tray, a frictional roller supported above the tray, means for holding the paper contained within the tray against the friction-roller, a paper-moistening device and means for pressing the copy, substantially as set forth.

2. In a letter-copying press, the combina-

tion with the frame, of a tilting paper-tray, a frictional roller journaled above the tray, a spring for forcing the tray with its paper against the frictional roller, two sets of pressure-rollers, a moistening-belt passed around the lower roller of each set, a gear connection between one of the pressure-rollers and the friction-roller, and means for rotating said rollers, substantially as and for the purpose set forth.

3. In a letter-copying press, the combination with a frame provided with a tilting tray and with means for forcing the front end of the tray with its paper upward, a frictional roller journaled in the frame above the front end of the tray, and adapted to remove the paper sheet by sheet, two sets of pressure-rollers, a water-receptacle below said rollers, a belt passed about the lower roller of each set and extending to the water-receptacle, and means for rotating said rollers whereby the belt will be rotated and the sheets of paper fed to the pressure-rollers, substantially as and for the purpose set forth.

4. In a letter-copying press, the combination with a frame having a hinged letter-table and a pivoted paper-tray, of a frictional roller pivoted across the front end of said frame immediately above the tray, two sets of pressure-rollers, one set of which is arranged immediately in advance and in line with the upper end of the tray, a water-receptacle secured to said frame below said rollers and provided with a transverse roller, a belt passed around the said transverse roller and the lower rollers of the aforesaid sets, and means for rotating said frictional rollers, transverse rollers, belt and frictional rollers, substantially as set forth.

5. In a letter-copying press, the combination with the frame, the side pieces of which are provided with inclined ways, rollers F G journaled in said side pieces above said ways, rollers B C journaled in blocks which slide in said ways, springs interposed between said blocks, a yoke pivoted to the frame and provided with set-screws to engage said blocks and compress said springs, substantially as and for the purpose set forth.

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

CHARLES A. GOODWIN.

Witnesses:

E. W. CHANDLER,
THOS. WAINWRIGHT.