

J. COTTLE.
BED PLATE ADJUSTMENT FOR PRINTING PRESSES.
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1,056,090.

Patented Mar. 18, 1913.

Fig. II

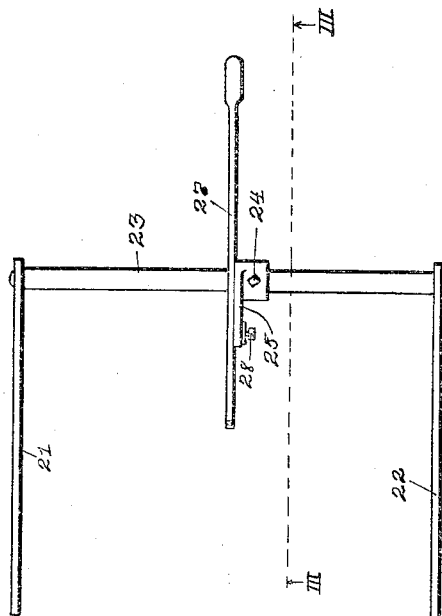


Fig. III

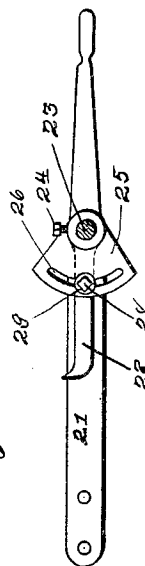
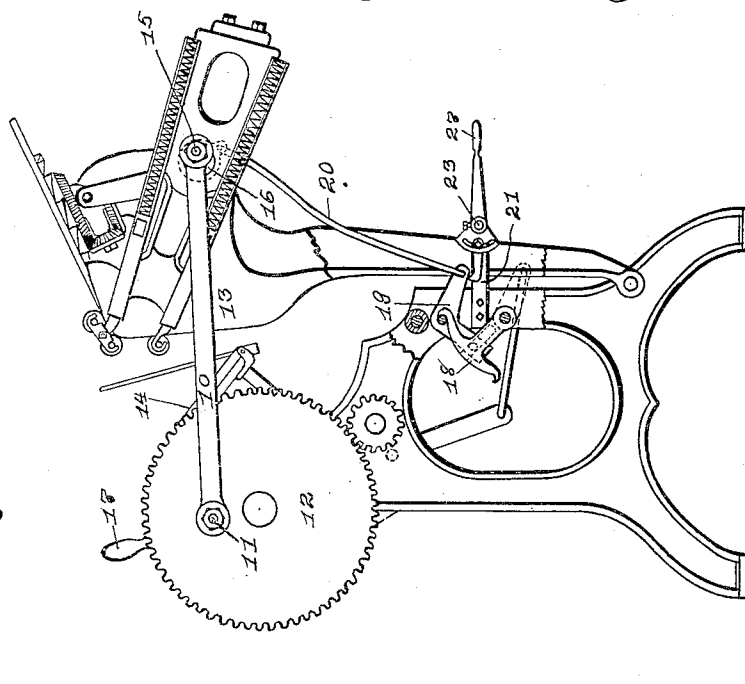


Fig. I



Witnesses

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UNITED STATES PATENT OFFICE.

JOHN COTTLE, OF DES MOINES, IOWA, ASSIGNOR OF ONE-HALF TO F. V. HALLEN, OF
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BED-PLATE ADJUSTMENT FOR PRINTING-PRESSES.

1,056,090.

Specification of Letters Patent.

Patented Mar. 18, 1913.

Application filed November 8, 1911. Serial No. 659,200.

To all whom it may concern:

Be it known that I, JOHN COTTLE, a citizen of the United States, residing in Des Moines, county of Polk, and State of Iowa, have invented a new and useful Improvement in Bed-Plate Adjustments for Printing-Presses, of which the following is a specification.

The object of my invention is to provide a simple adjustment for a printing press so that quick and accurate adjustment may be made for running either light or heavy paper. By the method now employed this is a hard and particular job as the platen must be leveled each time a change is made and often requires from one to two hours' time. By my improved means the adjustment can be made in a very short space of time, some demonstrations showing that ten seconds is sufficient.

My invention consists of certain details of construction, hereinafter set forth, pointed out in my claims, and illustrated in the accompanying drawings in which—

Figure I shows a side elevation view of a printing press, fitted out with my device, a portion of the press being broken away to more clearly show the device; Fig. II shows a plan view of a portion of my device; and Fig. III shows a sectional view on the line III—III.

Referring to the accompanying drawing the reference numeral 10 is used to indicate a bar mounted on a crank pin 11 in the gear wheel 12. In the operation of the press this pulls the bed plate 13 over against the platen 14. The end of the bar 10 is secured to the bed plate 13 by means of a pin 15, eccentrically located on the end of the shaft 16. It will be noted that, from the construction shown, if the shaft 16 is rotated it will virtually have the effect of lengthening or shortening the bar 10, and will bring the bed plate 13 closer to, or remove it farther away from, the platen 14, as the case may be. Lever 17 has a link connection at its lower end with a crank shaft on which a bell crank 18 is mounted, the latter having connection with one end of a bell crank lever 19, the opposite end of which latter is connected by a rod 20 with shaft 16. As the bell crank 19 moves downwardly it brings the bed plate 13 into closer relation to the platen 14.

As the construction hereinbefore referred

to is of the customary or ordinary type, I have not entered into detail description thereof but have simply made reference to the parts as shown in the drawings and which would be easily understood by any one skilled in the art.

My invention is very simple and consists in providing an adjustable stop to prevent the outer arm of the bell crank 19 from going any lower than is desired, said attachment being adapted to be secured to any press of this type. The attachment consists of the two side bars 21 and 22, similar in every respect, mounted to their respective sides of the frame and extending outwardly therefrom, carrying in their outward ends a shaft 23. Rigidly mounted on the shaft 23, by a set screw 24, is a sector 25, provided with a curved slot 26.

The lever 27 is rotatably mounted on the shaft 23 and is held in adjusted position thereon by the set screw 28 passing through a washer 29 and the slot 26, said set screw being threaded into the lever 27.

By construction the parts are so arranged that the lever 27 assumes a position immediately below, and in line with, the outer arm of the bell crank 19, and the upturned inner end of said lever is designed to engage the under side of the said outer arm of the bell crank 19 thus providing a downward limit of movement for the said bell crank.

In practical operation the lever 27 is set at the desired place, thus limiting the downward movement of the bell crank 19. The lever 17 is then pulled backward which forces the bell crank lever against the upturned end of the lever 27. The position of the bed plate is determined by this operation, as the rod 20, controlled by the lever 17, can only move a certain distance (until the bell crank 19 comes in contact with the lever 27). Thus it is obvious that the position of the lever 27, and the operation of the lever 17, control the relationship between the bed plate and the platen. The throw off is not affected by the position of the lever 27 because it is a forward movement of the lever 17 which controls the throw off.

Having thus described my invention what I claim and desire to secure by Letters Patent of the United States, is:

1. In a printing press, in combination

with a frame, the platen, the bed, an eccentric connection between the platen and bed and means for operating said connection, an element rigidly connected to the frame, 5 a lever pivotally mounted between its ends on said element, the inner end of said lever being for engagement with said operating means, and means rigidly mounted on said element and having connection with said 10 lever to lock the latter in its adjusted positions.

2. In a printing press, in combination with the frame, the platen, the bed, an eccentric connection between the platen and 15 bed, and means for operating said connection, a substantially horizontal frame rigidly connected to the press frame, a vertically adjustable lever carried by said horizontal frame to engage said means to re- 20 strict movement thereof and means to lock the lever in its adjusted position to said horizontal frame.

3. In a printing press, in combination with the frame, the platen, the bed, an eccentric connection between the platen and 25

bed, and means for operating said connection, a pair of horizontal bars rigidly connected at their inner ends to said frame, a transverse shaft connected to the outer ends of said bars, a sector having a curved slot 30 adjustably secured on said shaft, a lever mounted on said shaft and having a part thereof for engagement with said means, and means extending through said slot to adjustably connect the lever to the sector. 35

4. In a printing press, in combination with the frame, the platen, the bed, an eccentric connection between the platen and bed, and means for operating said connection, including a bell crank lever vertically 40 movable at one end, an adjustable horizontal lever connected to the frame to engage said bell crank to restrict the downward movement thereof and means to lock the last named lever in adjusted position.

JOHN COTTLE.

Witnesses:

FRANK STEINER,
LUCILLE ROE.

Copies of this patent may be obtained for five cents each, by addressing the "Commissioner of Patents, Washington, D. C."