

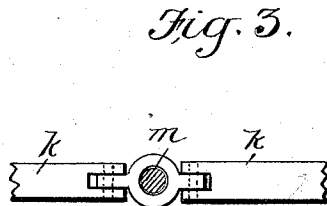
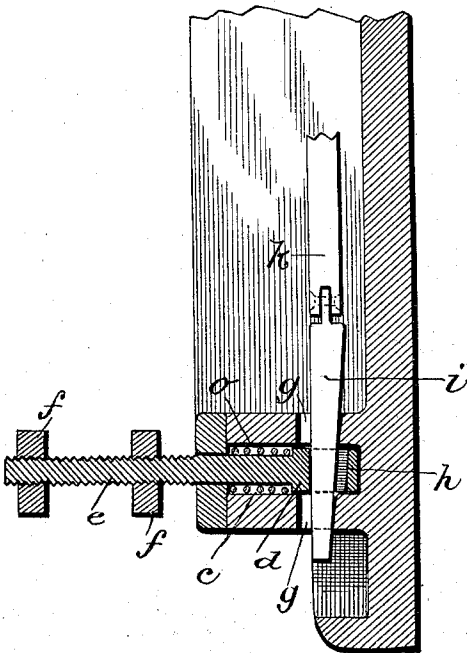
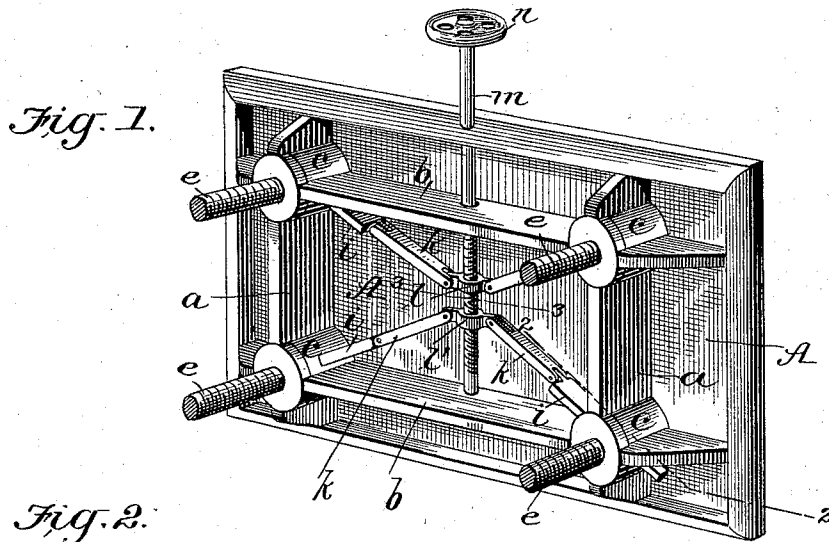
(No Model.)

C. O. DUFFY.

IMPRESSION ADJUSTMENT FOR PRINTING PRESSES.

No. 567,892.

Patented Sept. 15, 1896.



WITNESSES:

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UNITED STATES PATENT OFFICE.

CLARENCE O. DUFFY, OF OWENSBOROUGH, KENTUCKY.

IMPRESSION-ADJUSTMENT FOR PRINTING-PRESSES.

SPECIFICATION forming part of Letters Patent No. 567,892, dated September 15, 1896.

Application filed December 14, 1895. Serial No. 572,145. (No model.)

To all whom it may concern:

Be it known that I, CLARENCE O. DUFFY, of Owensborough, in the county of Daviess and State of Kentucky, have invented a new and Improved Impression - Adjustment for Printing-Presses, of which the following is a specification.

My invention is an improvement in means for adjusting the platen relative to the type-bed for the purpose of regulating the impression or amount of impression of the type upon the sheet or card to be printed. Such adjustment is usually made by means of four screw-bolts and nuts applied to the same, and it was so difficult of perfect accomplishment as to often involve vexatious delay.

By my improved apparatus the adjustment can be effected almost instantaneously and with perfect accuracy.

The construction, arrangement, and operation of the apparatus are as hereinafter described.

In the accompanying drawings, Figure 1 is a perspective view showing my invention applied to the under side of a platen. Fig. 2 is an enlarged section on line 2 2 of Fig. 1. Fig. 3 is an enlarged detail section on line 3 3 of Fig. 1.

The platen A is shown provided on its under or rear side with a series of integral ribs *a b*. At four points, to wit, at the intersections of said ribs, a socket *c* is formed to receive the head *d* of an adjusting screw-bolt *e*, whose shank is screw-threaded, and in practice extends through a portion of the frame of a printing-press, (not shown,) and is secured adjustably therein by means of nuts *f*. The aforesaid socket *c*, and also the bolt-head *d*, have coincident transverse slots *g* and *h* to receive an adjusting-wedge *i*. The inner sides of the slots *g h* and wedges *i* are inclined, and the outer sides of the same are parallel to the face of the platen. There are four such sockets *c*, bolts *e*, and wedges *i*, and the latter are connected in pairs for simultaneous adjustment by means of links *k*, nuts *l l'*, and a rotatable screw-threaded shaft *m*.

The links *k* are rigid bars, and each is pivoted at its ends to a wedge *i* and one of the nuts *l* or *l'*, respectively. The shaft *m*, which

is arranged parallel to the platen A and provided with a hand-wheel *n* at its outer end, has a right-hand thread on one portion and a left-hand thread on the adjacent portion, and the nuts *l l'* are arranged on such threaded portions, respectively, so that when the shaft *m* is rotated the nuts are moved apart or brought nearer each other and the wedges *i* thereby adjusted simultaneously, so as to raise or lower the platen A precisely the same distance at each corner. In other words, the platen A is adjusted relative to the face of the type-bed, as required for large or small forms and the varying thicknesses of paper or card to be printed, and is kept perfectly parallel to the surface of the type-bed while being thus adjusted. Moreover, the adjustment is effected practically instantaneously. It will be seen that the upward movement of the platen is caused by the action of the inclined plane of the wedges *i*, which are outwardly forced between the opposing contact-surfaces of the bolt-heads and their sockets. The return or downward movement of the platen is insured by the action of helical springs *o*, which are coiled about the plain portions of the shanks of the screw-bolts *e* between their heads *d* and the bottom of the sockets.

What I claim is—

1. The combination, with a printing-press platen, having ribs on its under side and provided with sockets as specified, and bolts whose heads lie in said sockets, of an adjusting apparatus composed of wedges working in coincident slots in the bolt-heads and sockets, a rotatable screw-shaft, nuts working on the latter, and means for connecting the wedges and nuts, substantially as shown and described, whereby the rotation of the shaft slides the wedges and thus effects the desired impression-adjustment of the platen, as specified.

2. The combination, with the printing-press platen, having integral ribs on its under side and sockets as specified, of fixed screw-bolts, and nuts, for securing the platen, the heads of said bolts projecting into the sockets and having transverse slots which coincide with slots in the sockets, springs for retracting the platen, and the wedges working in the

slots, a rotatable shaft having two opposed screw-threads, nuts working on the same, and rigid links pivoted to and connecting the nuts and wedges, as shown and described.

- 5 3. The improved impression-adjusting attachment for printing-press platens, which is composed of four wedges, a rotatable shaft having right and left screw-threads, and ar-

ranged in the same plane as the wedges, nuts applied to the different screw-threads, and 10 rigid links pivoted to and connecting the wedges and nuts, as shown and described.

CLARENCE O. DUFFY.

Witnesses:

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