

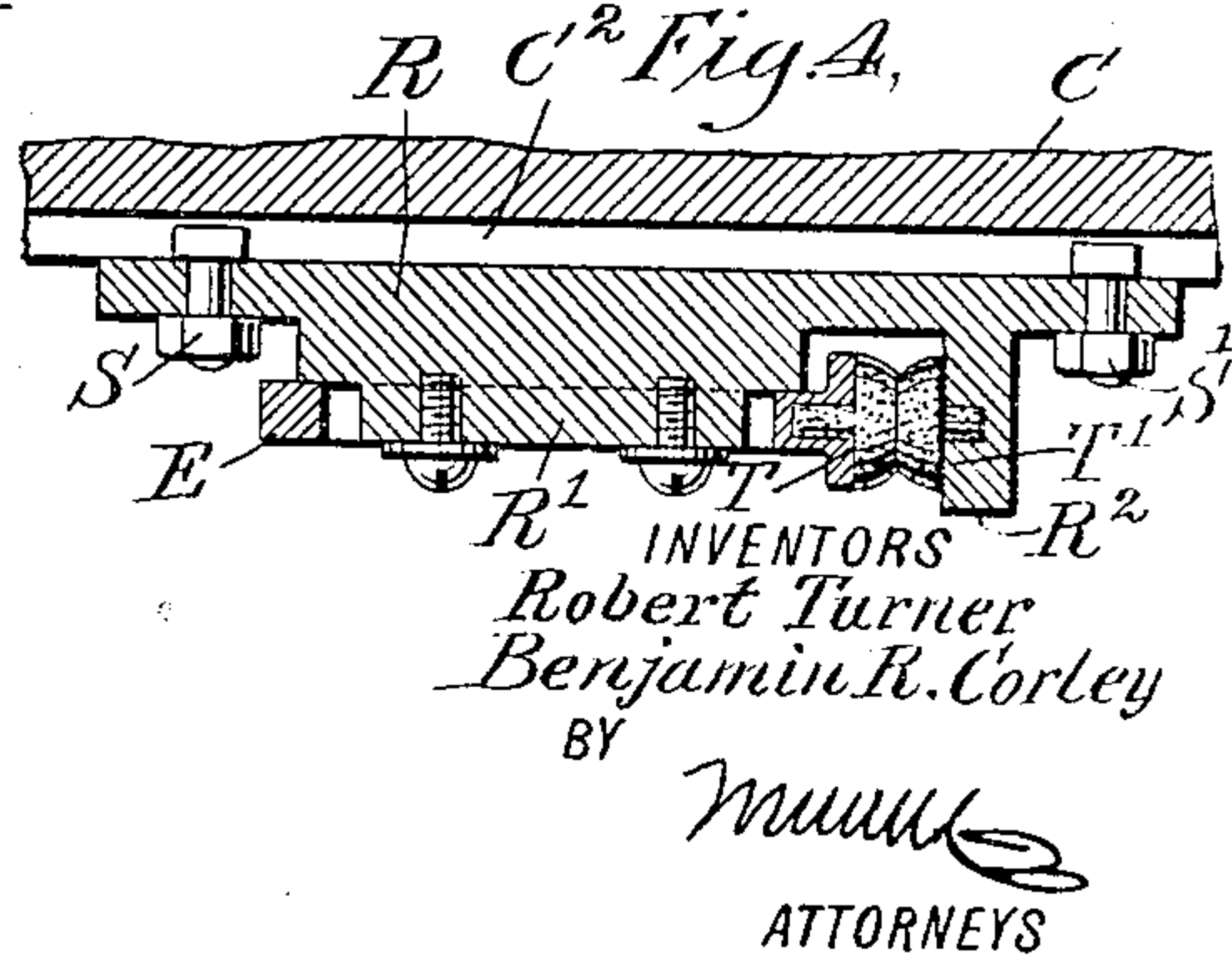
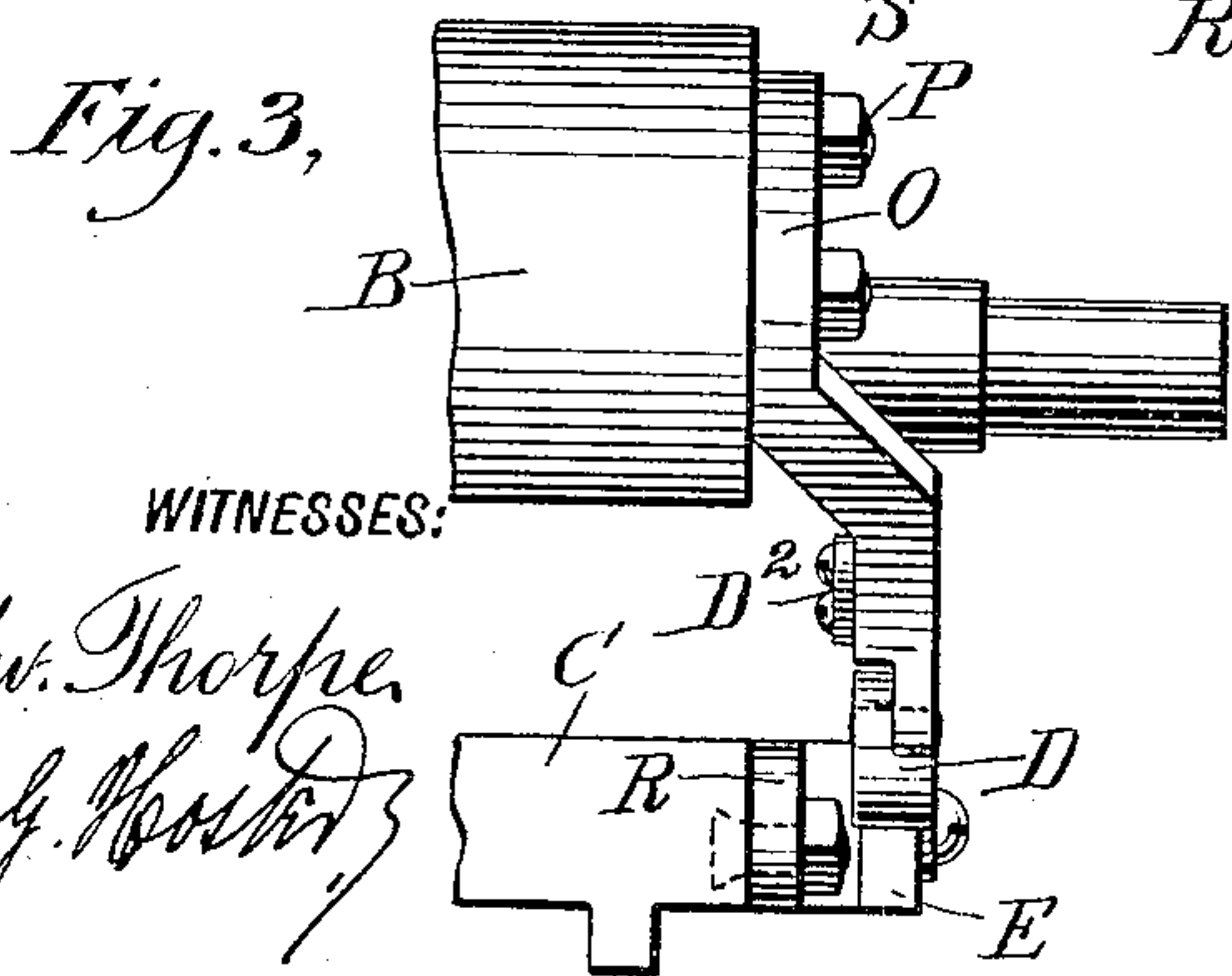
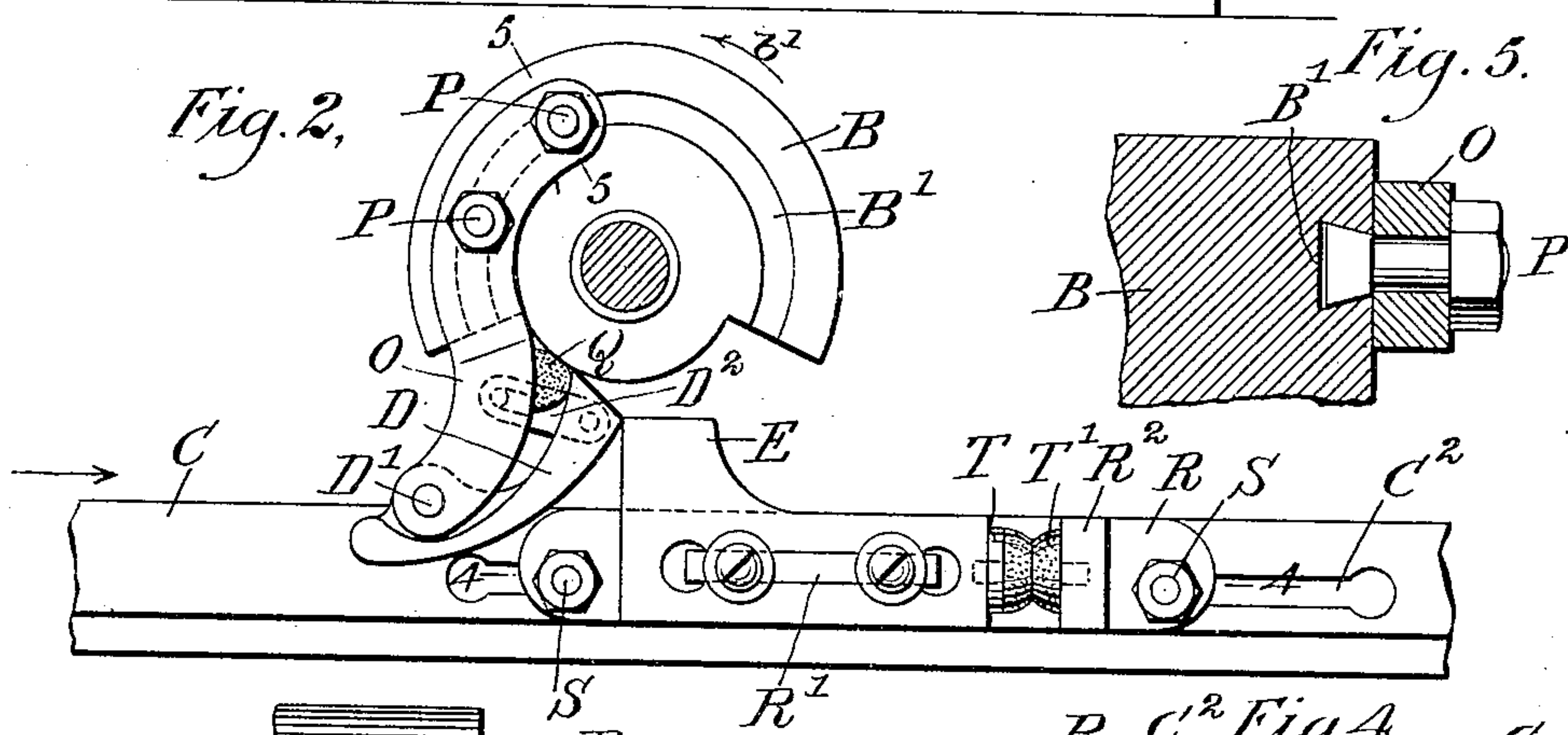
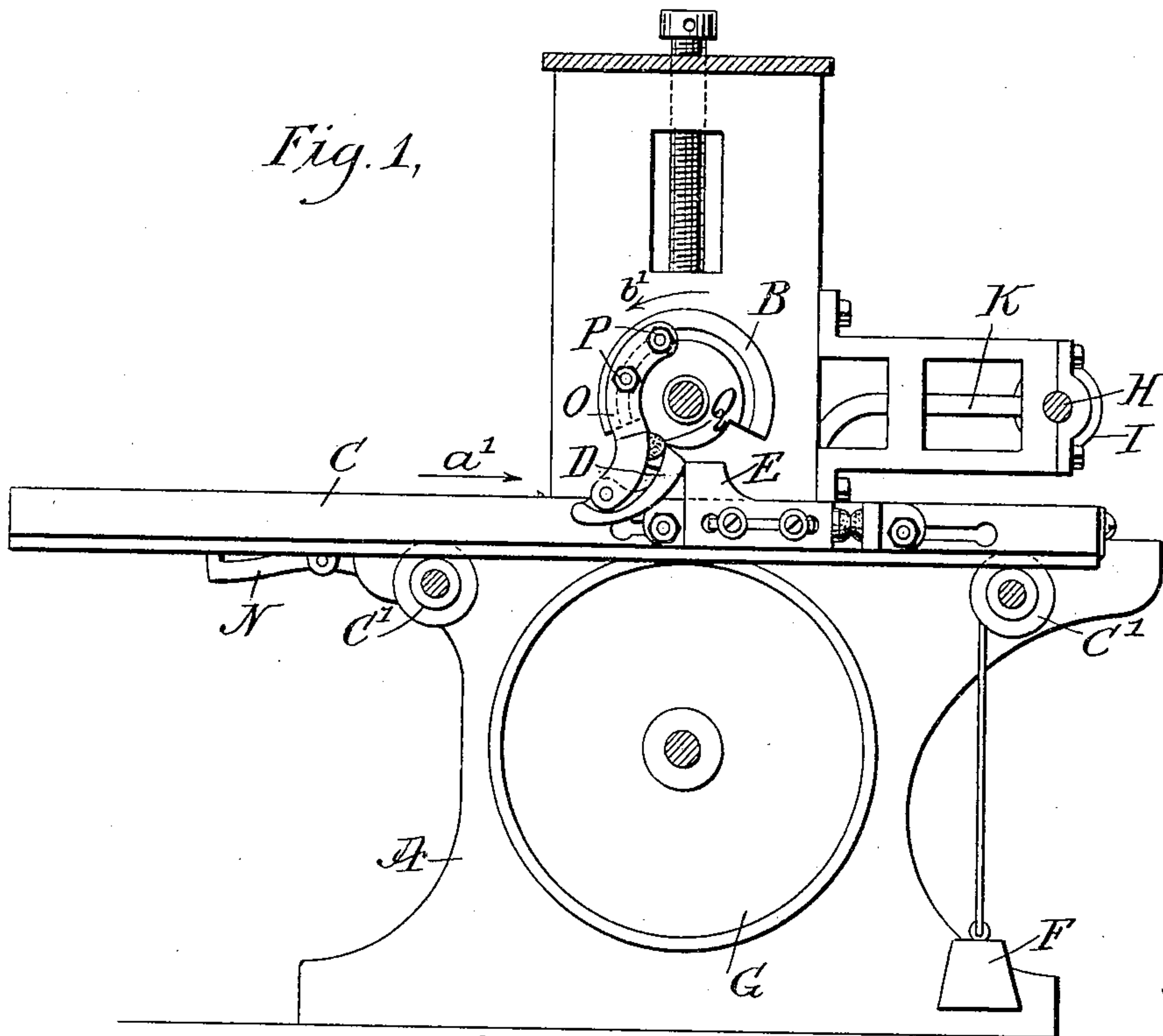
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PATENTED JAN. 2, 1906.

R. TURNER & B. R. CORLEY.

PLATE PRESS.

APPLICATION FILED JAN. 21, 1905.



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UNITED STATES PATENT OFFICE.

ROBERT TURNER, OF NEW CANAAN, CONNECTICUT, AND BENJAMIN RANDALL CORLEY, OF NEW YORK, N. Y.

PLATE-PRESS.

No. 809,036.

Specification of Letters Patent.

Patented Jan. 2, 1906.

Application filed January 21, 1905. Serial No. 242,080.

To all whom it may concern:

Be it known that we, ROBERT TURNER, a subject of the King of Great Britain, and a resident of New Canaan, in the county of Fairfield and State of Connecticut, and BENJAMIN RANDALL CORLEY, a citizen of the United States, and a resident of the city of New York, borough of Brooklyn, in the county of Kings and State of New York, have invented a new and Improved Plate-Press, of which the following is a full, clear, and exact description.

The invention relates to plate-presses for copper and steel plate printing, and such, for instance, as shown and described in the Letters Patent of the United States, No. 719,909, granted to us February 3, 1903.

The object of the present invention is to provide a new and improved plate-press arranged to allow of running the press at a high rate of speed without undue shock or jar, especially on the starting of the impression-roller and the bed or table and also when they come automatically to a stop after the impression is made.

The invention consists of novel features and parts and combinations of the same, as will be more fully described hereinafter and then pointed out in the claims.

A practical embodiment of the invention is represented in the accompanying drawings, forming a part of this specification, in which similar characters of reference indicate corresponding parts in all the views.

Figure 1 is a sectional side elevation of the improvement. Fig. 2 is an enlarged end view of the mechanism for actuating the bed or table from the impression-roller, the shaft of the latter being shown in section. Fig. 3 is a side elevation of the same. Fig. 4 is a sectional plan view of the same on the line 4 4 of Fig. 2, and Fig. 5 is an enlarged transverse section of the same on the line 5 5 of Fig. 2.

The plate-press is mounted on a suitably constructed frame A, in which is journaled an impression-roller B, operating in conjunction with a bed or table C, mounted to travel longitudinally on friction-rollers C' and receiving an initial forward movement in the direction of the arrow *a'* by an arm D, held on the impression-roller and engaging a cam E on the table C. The return movement of the table C is accomplished by the usual weight F, and the under side of the said table travels over a pressure-resisting roller G, lo-

cated in vertical alinement with the impression-roller B.

The mechanism for intermittently turning the impression-roller B from the main driving-shaft H is similar to the one shown and described in the Letters Patent above referred to, so that further detailed description of the said mechanism is not deemed necessary, it being sufficient to state that the clutch mechanism I for connecting the main driving-shaft by a driving-gear with the impression-roller B is controlled by the operator manipulating a shifting-lever K and a tripping-lever N, and after the impression is made a cam on the impression-roller B acts on the tripping-lever N to cause an automatic return of the shifting-lever K to throw the clutch out of gear and to bring the impression-roller to a stop at the time the impression-roller is again in a starting position. The bed returns to its starting position by the action of the weight F.

In order to prevent shock or jar when the impression-roller and table C start or come to a stop on their return movement, the following device is provided: The arm D is fulcrumed at D' on a bracket O, held adjustable on one end of the impression-roller B by the use of bolts P passing through the bracket O and engaging with their heads a dovetail segmental groove B', formed on the end of the impression-roller B, as plainly illustrated in Figs. 2 and 5. A cushion Q is interposed between the free end of the arm D and the bracket O, so that when the arm D and the cam E contact with each other then the arm D is free to yield, owing to the cushion Q, which is preferably in the form of a rubber block attached to the bracket O, as indicated in the drawings.

In order to limit the swinging motion of the arm D, a link D² is provided, fulcrumed on the arm D and having an elongated slot engaging a pin on the bracket O. (See dotted lines in Fig. 2.) The cam E, engaged by the arm D, is mounted to slide longitudinally on a suitable guideway R', held or formed on a bracket R, adjustably secured to one side of the bed or table C by the use of bolts S, engaging with their heads a dovetail groove C², formed lengthwise in the side of the bed or table C, as plainly indicated in Figs. 2 and 4. Between the forward end of the cam E and the projection R² of the bracket R is interposed a cushion, preferably in the form of

rubber blocks T and T', adapted to contact and secured to the cam E and the projection R², respectively.

When the press is in operation, the impression-roller B is caused to rotate in the direction of the arrow b', and the arm D in abutting against the cam E causes a forward sliding of the bed or table C, and as both the arm D and the cam E are yieldingly mounted it is evident that all shock or jar incident to the contacting of the arm D with the cam E is reduced to a minimum. In a like manner after the arm D has left the cam E and the impression-roller finally reaches a starting position and then comes to a stop and the bed or table C is caused to return by the action of the weight F then the cam E in striking against the arm D relieves the bed or table C of considerable shock and jar, owing to the cushioning effect of the cushions Q and T T' for the arm D and the cam E, respectively. Thus by the arrangement described the position of the plate on the bed C is not liable to be disturbed, and a proper contact between the card to be printed on and the plate is had to insure an accurate non-blurred impression.

From the foregoing it is evident that by the arrangement described the plate-press can be run at a high rate of speed at the same time being capable of producing work of a high grade.

Having thus described our invention, we claim as new and desire to secure by Letters Patent—

1. A plate-press provided with an arm on the impression-roller, and a cam on the bed, the said arm and cam having yieldingly-mounted contact members.
2. A plate-press provided with an operating-arm on the impression-roller, for imparting movement to the bed, the said arm being yieldingly mounted.
3. A plate-press provided with an operating-arm on the impression-roller, for imparting movement to the bed, the said arm being pivoted, and a spring-cushion for the said arm.
4. A plate-press provided with a cam mounted on the bed to yield in the direction of movement thereof and adapted to be actuated from the impression-roller.
5. A plate-press provided with a cam mounted to slide on the bed, and a spring-cushion for the said cam whereby the cam can yield in the direction of movement of the bed.
6. In a plate-press, the combination with the impression-roller and the bed, of an arm pivoted on the impression-roller, a cushion for the said arm, a cam slidably mounted on the said bed and adapted to be engaged by the said arm, and a cushion for the said cam.

7. In a plate-press, the combination with the impression-roller and the bed, of an arm pivoted on the impression-roller, a cushion for the said arm, means for limiting the swinging motion of the said arm, a cam slidably mounted on the said bed and adapted to be engaged by the said arm, and a cushion for the said cam.

8. A plate-press provided with an impression-roller, a bed, and coacting yielding means on the bed and roller for imparting a traveling motion to the said bed from the impression-roller.

9. A plate-press provided with an impression-roller, a bed, and yielding means for imparting a traveling motion to the said bed from the impression-roller and for forming a cushioning-stop for the bed on its return movement.

10. In a plate-press, the combination with the impression-roller and the bed, an arm for operating the bed, said arm being pivotally connected with the impression-roller, means for limiting the swinging motion of the arm, and a cushion for said arm.

11. In a plate-press, the combination with the impression-roller and the bed, of a bracket carried by the impression-roller, an arm for operating the bed, said arm being pivoted to the bracket, a link connection between the arm and the bracket, and a cushion on the bracket between said bracket and arm.

12. In a plate-press, the combination with the impression-roller, and the bed, of a bracket adjustably secured to the impression-roller, an arm for operating the bed, said arm being pivoted at one end to the bracket, a slotted link connecting the arm with the bracket, and cushion on the bracket between said bracket and arm.

13. In a plate-press, the combination with the impression-roller and an arm carried thereby, of a bed, a bracket on the bed and provided with a projection, a cam mounted to slide on the bracket, and a cushion interposed between the cam and the projection of the bracket.

14. In a plate-press, the combination with the impression-roller, and an arm carried thereby, of a bed, a bracket adjustably secured to the bed and provided with a projection, a cam mounted to slide on the bracket, and cushion in the form of rubber blocks, one secured to the cam and the other to the projection of the bracket.

In testimony whereof we have signed our names to this specification in the presence of two subscribing witnesses.

ROBERT TURNER,
BENJAMIN RANDALL CORLEY.

Witnesses:
THEO. G. HOSTER,
EVERARD BOLTON MARSHALL.