C. W. Hackett,

Hard Stamp.

No. 15761. Patented Sept 23 1856

Fig 2

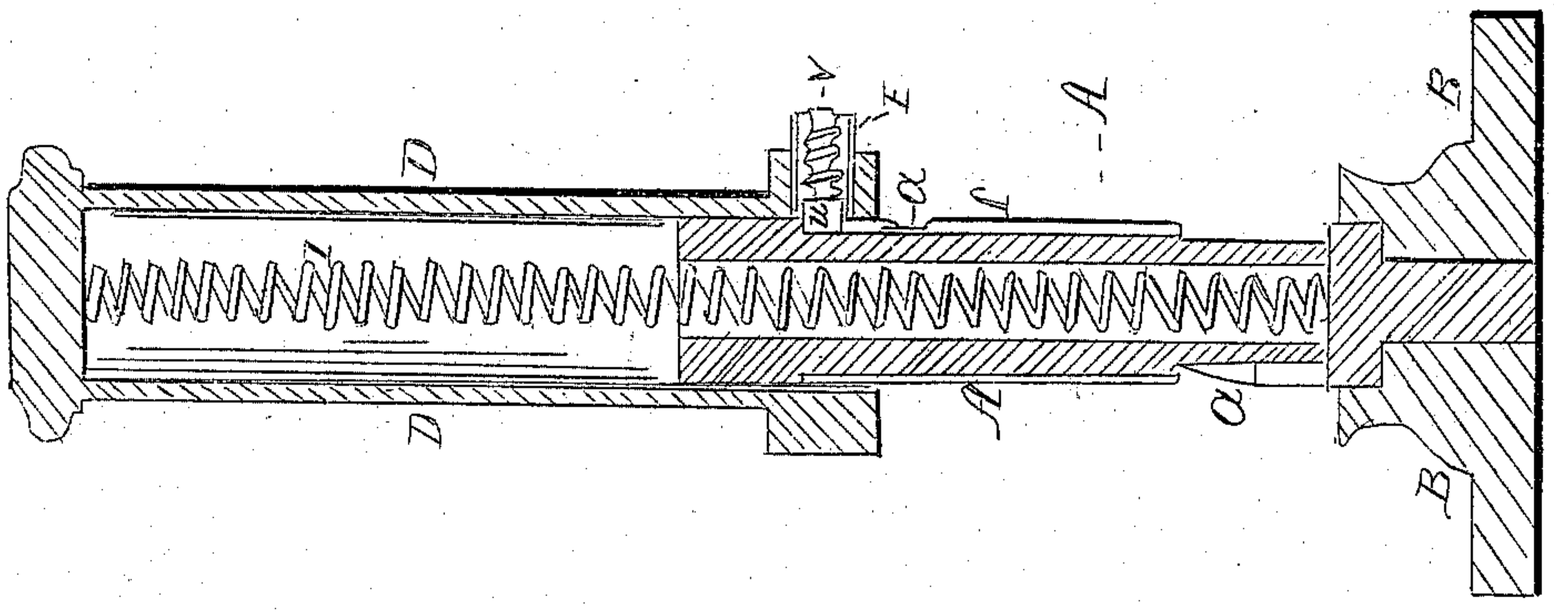


Fig. 3.

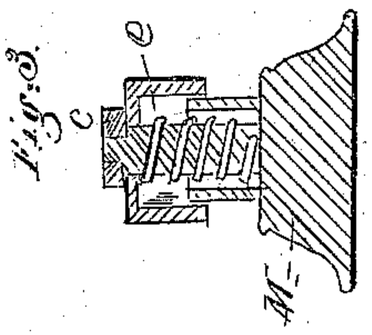
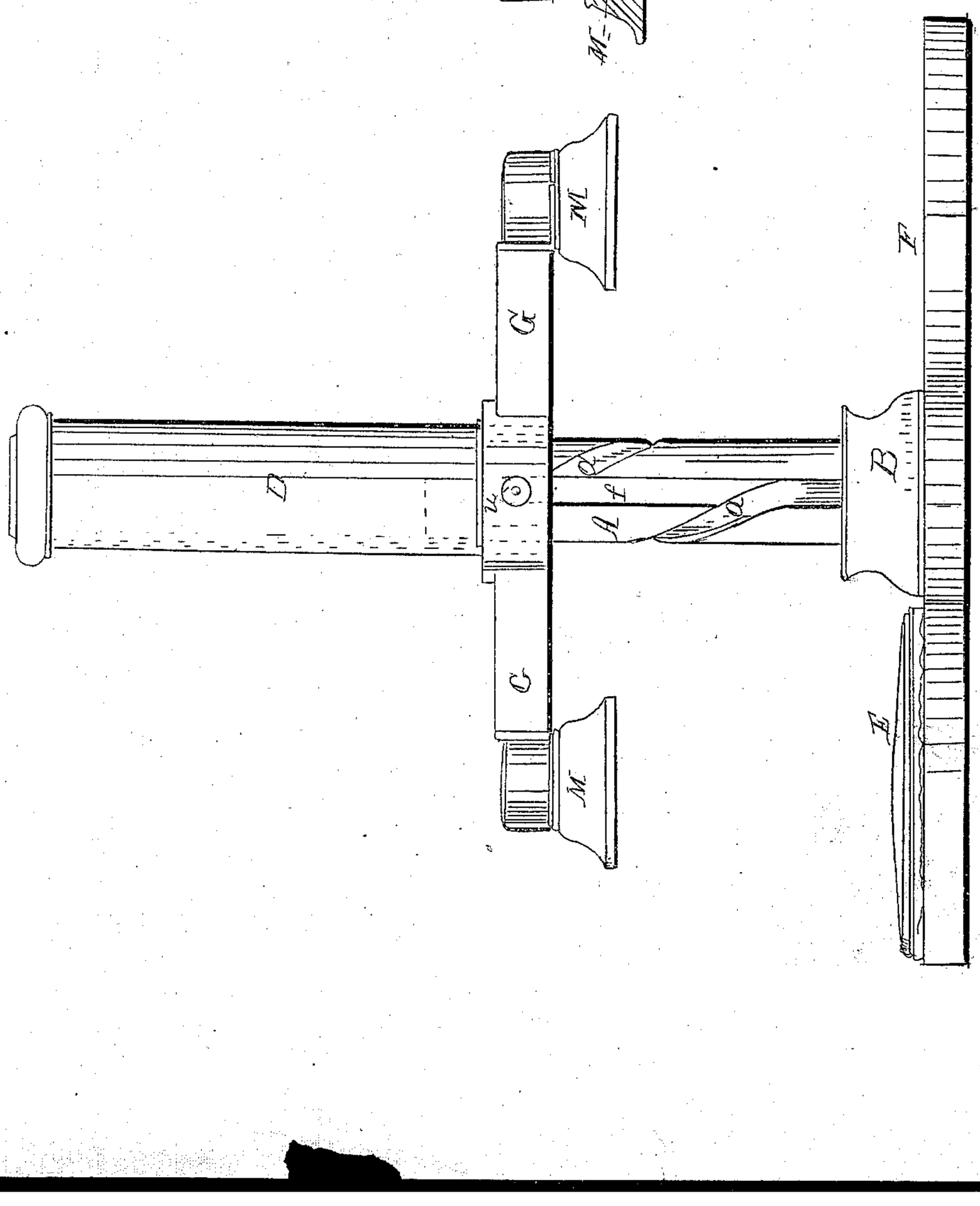


Fig. 4



UNITED STATES PATENT OFFICE.

CHARLES W. HACKETT, OF ELMIRA, NEW YORK.

HAND-STAMP.

Specification of Letters Patent No. 15,764, dated September 23, 1856.

To all whom it may concern:

Be it known that I, CHAS. W. HACKETT, of Elmira, county of Chemung, and State of New York, have invented certain new and useful Improvements in Hand Printing-Presses; and I do hereby declare the following to be a full, clear, and exact description of the same, reference being had to the annexed drawing, making part of this specification.

Figure 1 represents a side elevation. Fig. 2 is a vertical cross section, and Fig. 3 represents one of the type blocks detached showing one mode of rendering the same yielding and adjustable.

To enable others skilled in the art to make and use my improved printing press, I will proceed to a description of the same in detail.

Like letters indicate the same parts in all the figures.

A in the accompanying drawing represents a hollow standard erected upon and firmly secured to a base (B). Upon this base is arranged an ink bed E, on which the two sets of type are alternately forced to receive fresh supplies of ink, while the opposite or corresponding side F forms the platen upon which the material to be printed is placed. To the hollow standard A is fitted a hollow sliding cap (D) in which the standard A is inserted and operates. To the lower end of the cap (D) is secured a cross head (G), to the ends of which are arranged the type blocks M, in the lower face of which the type are secured in any convenient manner. To render these type blocks yielding and self adjusting to any thickness of material being printed a spiral spring (*e*), see Fig. 3, may be placed around their shanks, to which shanks nuts (*c*) are fitted by which said blocks are held in position in the ends of the cross head (G). By this arrangement the shanks of the type blocks are permitted to slide up and down in the sockets formed in the cross-head, yielding when brought in contact with hard substances, also adapting themselves to the different thicknesses of material being printed.

In the surface of the standard (A) are formed two corresponding spiral grooves (*a*), also two perpendicular grooves (*f*). The spiral grooves commence near the base of the standard A, and terminate about an equal distance from the upper end, describing nearly half the circumference of the standard (A), intersecting the perpendicular grooves, one near the base and its corresponding opposite groove near the top. By reference to Fig. 2 it will be observed, that the perpendicular grooves do not vary in their depths, while the spiral grooves, at their base, are considerably deeper than the perpendicular grooves, but gradually becoming more shallow until, at the point of intersection near the upper ends of the perpendicular grooves, they become of less depth than the latter forming an off-set as seen in Fig. 2.

In the cross-head (G) of the sliding cap (D), is arranged a sliding bolt (*u*), the head of which corresponds in diameter with and operates in the grooves formed in the surface of the standards (A). Around the shank of the bolt (*u*) is placed a spiral spring (*v*), which is held in position by a casing (*s*) or in any other convenient manner. This spring (*v*) constantly bearing against the shoulder of the bolt (*u*) retains it in its proper position, in the grooves.

Within the hollow cap (D) to which the cross-head and type blocks are secured, a spiral spring (I) is placed which in this instance extends to the base of the hollow standard (A), by which said cap (D), after the impression is made and the corresponding type supplied with fresh ink, is elevated as shown in the annexed drawing to be in readiness to make the following impression. The cap (D) in its upward motion having described half the circumference of the standard A, presents for the succeeding impression the opposite set of type.

From the foregoing description it will be seen, that by the downward motion of the cap (D) to which the cross-head and type blocks are secured, the bolt (*u*) following in one of the perpendicular grooves (*f*), the two sets of type are brought, one upon the material being printed and the opposite or corresponding set upon the ink bed to receive a fresh supply of ink. In the downward motion of the cap (D) and cross-head (G), the bolt (*u*) passes from one of the perpendicular grooves (*f*), at the base, into one of the deeper spiral grooves (*a*), by which spiral groove the bolt (*u*) is guided, in the upward motion of the cap (D), causing said cap and cross-head to describe half the circumference of the standard A, by which arrangement the type secured to the

cross-head are alternately presented to the material being printed and to the ink bed for fresh supplies of ink.

The printing press may be driven by a treadle or other power to suit different constructors, a description of which I do not deem necessary here.

Having thus fully described my improved printing press what I claim therein as new and desire to secure by Letters Patent is—

The arrangement of a rotating printing press with two sets of type alternating with each other in such manner, that at the same time one set of type are leaving their impression the opposite or corresponding set are being supplied with ink, the whole constructed and arranged substantially as herein set forth.

CHAS. W. HACKETT.

Witnesses:
U. DUNN,
A. B. GALATIAN.