2 Sheets--Sheet 1.

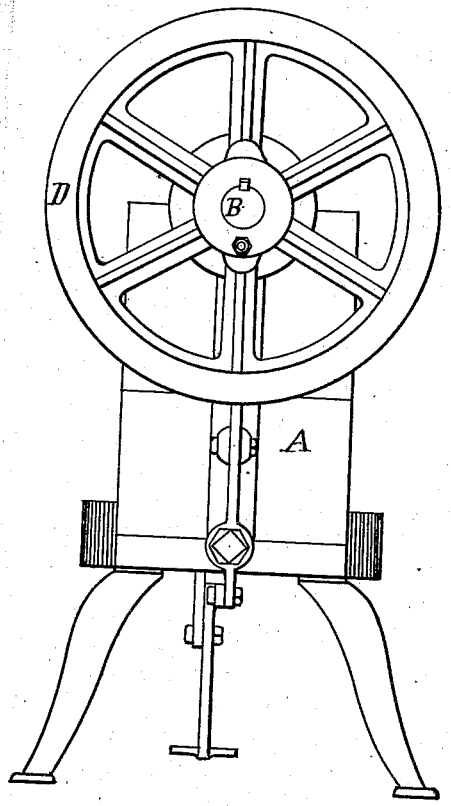
A. H. MERRIMAN.

Clutch for Power-Press.

No. 164,690.

Patented June 22, 1875.

Fig. 1



WITNESSES

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2 Sheets--Sheet 2.

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Clutch for Power-Press.

No. 164,690. Patented June 22, 1875.

Fig. 2

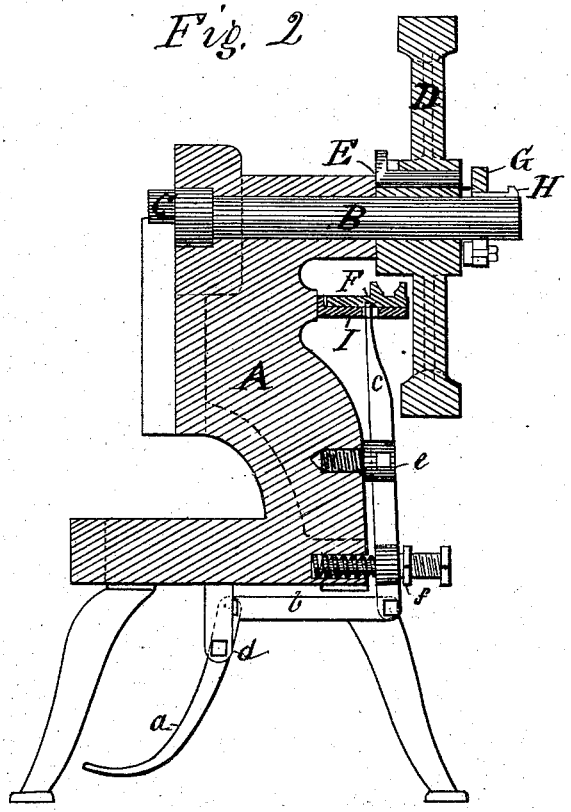
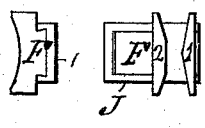
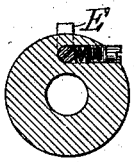


Fig. 3.





WITNESSES

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UNITED STATES PATENT OFFICE.

ALANSON H. MERRIMAN, OF WEST MERIDEN, CONNECTICUT.

IMPROVEMENT IN CLUTCHES FOR POWER-PRESSES.

Specification forming part of Letters Patent No. **164,690**, dated June 22, 1875; application filed May 10, 1875.

To all whom it may concern:

Be it known that I, ALANSON H. MERRIMAN, of West Meriden, county of New Haven and State of Connecticut, have invented a certain new and useful Improvement in Punch-Press Clutch; and to enable others skilled in the art to make and use the same I will proceed to describe it, referring to the drawings, in which the same letters indicate like parts in each of the figures.

In the accompanying drawings, Figure 2 is a sectional side elevation. Fig. 1 is a back end elevation; Fig. 3, top and end view of the horizontal sliding guide-groove.

My invention relates to an improvement in that part of a power-press known as the clutch, or device for connecting and disconnecting the power from the press when desirable.

A is the frame or body of the press, having proper bearings, into which is fitted closely and works freely a shaft, B, upon the front end of which is formed or secured a crank or wrist-pin, C, to which the slide or plate for holding the tool is attached, as shown in my patent, May 26, 1868, No. 78,225. D is the driving-wheel, which is fitted closely and turns freely upon the shaft B next to the body or frame A. Into the hub of this wheel D is fitted a friction sliding dog-pin, E, which is held by a friction device from moving in either direction, except when actuated by a horizontal concave sliding guide shoe-plate, F. Just back of the wheel D, upon the shaft B, is fitted a clutch-collar, G, secured to turn in uniformity with the shaft by a key, H. Directly under and parallel with the shaft B is a bracket, I, having a V-shaped groove, into which is fitted closely and moves freely a sliding plate, J. On the upper side and outer end, and at right angles with this plate J, and directly under the wheel-hub, is the concave guide shoe-plate F, the curve or section of a circle of which is a little larger than the diameter of the wheel-hub, and the side guide 1 is formed incline-shaped, or diverging outward each way from the center of the plate F, and the guide 2 is formed at right angles with the shaft B two inches, more or less, directly under said shaft, and in diverging lines each way therefrom. This concave sliding guide shoe-plate F is actuated back by a foot-lever, *a*, and its connections *b c*, which are supported or held in the brackets *d e*, and is reacted, when the foot is removed from the treadle, by a spring, *f*. The upper end of the lever-connection *c* passes through an elongated orifice in the plate I, into an orifice in the shoe-plate F, and is thrown outward by the foot-treadle or lever *a*, and, when the foot is removed, is reacted by the spring *f*.

Now, it will be clearly seen that the direction of the revolution of the wheel D is immaterial, thereby avoiding accidents, which otherwise are liable to occur; also, that when a full action of the press is had, and the foot removed from the treadle, the center of the crank or wrist pin C will rest at the highest point of its circle.

Thus I am enabled to greatly simplify and produce quick and positive action of the clutch.

What I claim, and desire to secure by Letters Patent, is—

In a press, substantially as herein described, the wheel D, sliding pin E, collar G, key H, guide-plate F, bracket I, plate J, and spring-treadle, all combined to operate substantially as herein set forth.

ALANSON H. MERRIMAN.

Witnesses:
N. C. WILDER,
JEREMY W. BLISS.