D. Dick,

Cotton Press.

No. 5840. Patented Oct. 10, 1848.

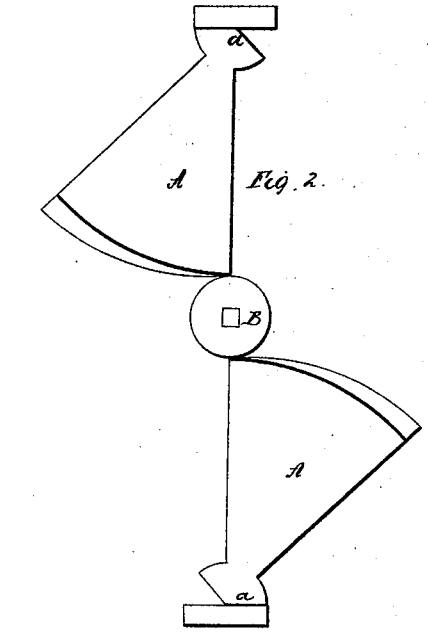

Fig. 2.

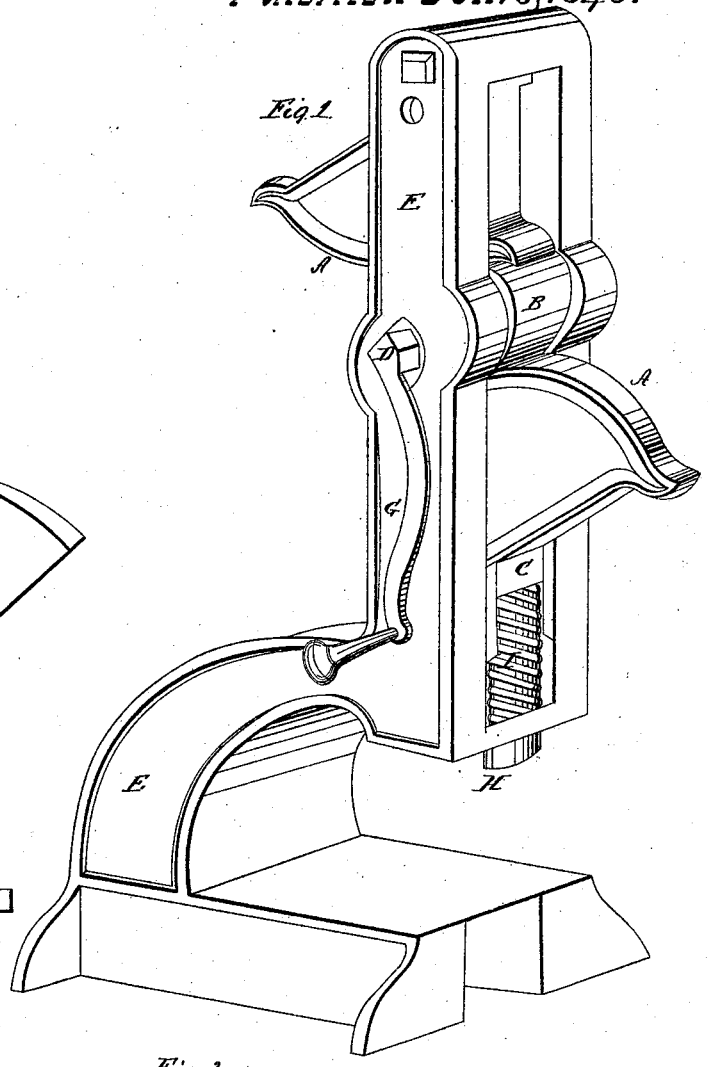

Fig. 1.

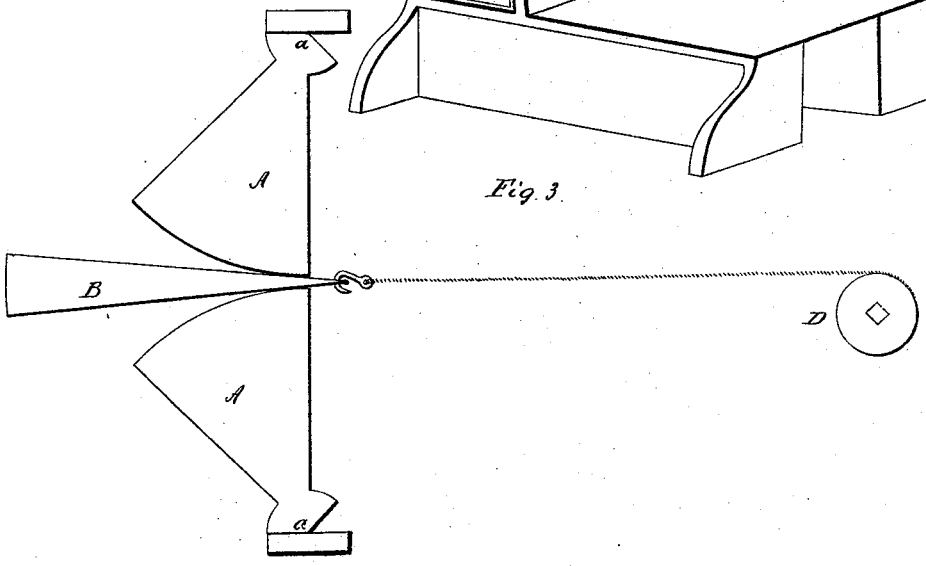

Fig. 3.

UNITED STATES PATENT OFFICE.

DAVID DICK, OF MEADVILLE, PENNSYLVANIA.

IMPROVEMENT IN PRESSES.

Specification forming part of Letters Patent No. **5,840**, dated October 10, 1848.

To all whom it may concern:

Be it known that I, DAVID DICK, of the borough of Meadville, in the county of Crawford and State of Pennsylvania, have invented a new and useful Machine for Cutting, Punching, Pressing, &c., which is denominated the "Anti-Friction Press;" and I do hereby declare that the following is a full, clear, and exact description of the construction and operation of the same, reference being had to the annexed drawings, making a part of this specification, in which—

Figure 1 is a perspective view. Fig. 2 is a side sectional view, and Fig. 3 is a side sectional view showing a variation in the mode and construction of the same.

A A are two eccentric sectors. B is a center wheel between them. C is a follower, which is pressed down when the machine is operated. H is a piston attached to the follower C. D is the projecting end of the axis of the center-wheel B, to which is attached the winch G. E is the frame inclosing all.

When the press is to be put in operation, the center wheel, B, is made to revolve by the lever G. The upper sector is transferred the length of its face to the right hand and the lower one to the left. The follower C, with its attachments, is depressed the distance equal to the sum of the eccentricities on the two sectors. At the point of bearing, *a a*, of the two sectors the shape is that of an obtuse angle, and consequently move without any rubbing or sliding friction. The axis of the center wheel, B, is kept in its place by guides in or attached to the frame, which admits of the necessary perpendicular movement, as also the follower C.

I is a helical spring surrounding the piston H, to force back the follower as the press is relaxed after operation.

Fig. 2 represents a side sectional view of the sectors A A and center wheel, B, showing the eccentricities on each. Fig. 3 represents a varied plan or arrangement of the press, consisting of two plain sectors, A A, and a wedge, B, to be drawn by the windlass D in the direction of the windlass. In this arrangement of the press the traverse of the follower and intensity of the force can be varied by using wedges of various degrees of angular acuteness. Fig. 4, Plate 2, shows an arrangement of two sectors with a double eccentricity on each which might operate usefully where greater expedition or rapidity of movement is desirable. Fig. 5, Plate 2, shows a pair of plain sectors with the eccentricity on the center wheel, constituting another variety of the ways of using the press.

I do not claim the employment of an eccentric sector and roller for the purpose of pressing, as this has been long known; nor do I claim making pressure by means of a wedge moving between two plain sectors; but

What I do claim is—

The combination of two eccentric sectors having their bearings upon edges, as set forth above, with a roller placed between them whose axis has free play, all in the manner and for the purpose above set forth.

DAVID DICK.

Witnesses:
WM. P. ELLIOT,
A. E. H. JOHNSON.