B. J. DAY.

Hay and Cotton Press.

No. 160,579. Patented March 9, 1875.

Fig. 1

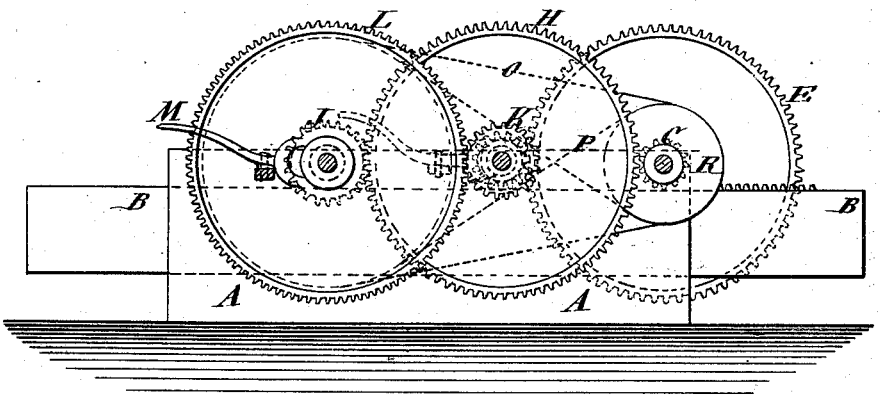
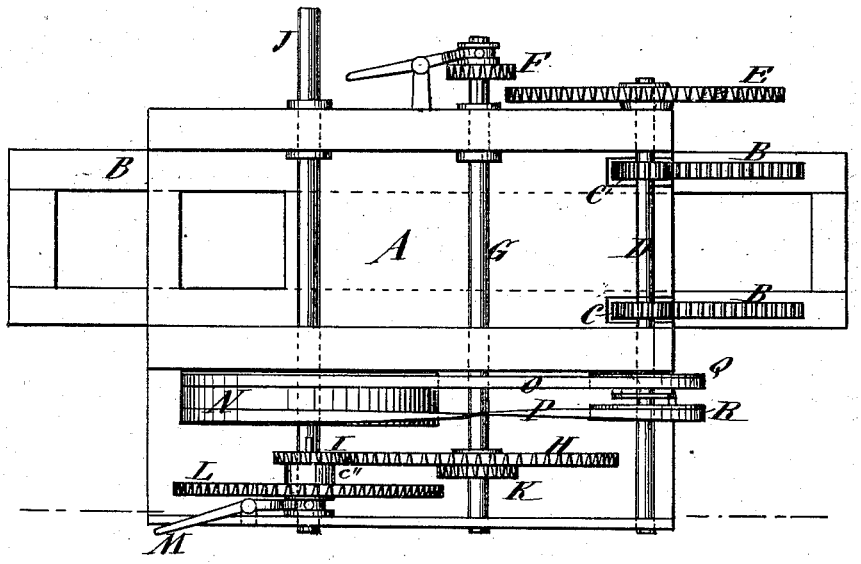


Fig. 2



WITNESSES:

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UNITED STATES PATENT OFFICE.

BENJAMIN J. DAY, OF EVANSVILLE, INDIANA.

IMPROVEMENT IN HAY AND COTTON PRESSES.

Specification forming part of Letters Patent No. **160,579**, dated March 9, 1875; application filed January 18, 1875.

To all whom it may concern:

Be it known that I, BENJAMIN J. DAY, of Evansville, Vanderburg county, Indiana, have invented a new and Improved Press, of which the following is a specification:

My present invention relates to a press having a horizontal case and a horizontal follower, which is worked by a train of reducing-gears working into toothed bars connected to the follower, to press the hay or other matter; and it consists of a novel contrivance of the train in a simple and cheap way, for giving a quicker speed to the follower during the fore part of the operation, when the resistance is not so great as in the latter part, and for giving a slower speed in the latter part, when the resistance is greatest.

Figure 1 is a side elevation of the train and a part of the press, and Fig. 2 is a plan view.

Similar letters of reference indicate corresponding parts.

A represents a portion of the case, in which the toothed bars B, for working the follower, slide, being geared by the pinions C with the shaft D, which gears by the large wheel E and pinion F with the counter-shaft G, which gears by large wheel H and pinion I with the driving-shaft J, to which the power will be applied in any approved way.

By this train a slow and powerful movement of the follower is effected for finally compressing the bale; but it is too slow for working to the best advantage in the fore part of the operation. I have therefore applied the pinion K to the counter-shaft G, and the large wheel L to the driving-shaft J, and have secured said wheel L and the pinion I to a sliding sleeve, *c*, which slides on said shaft J by a lever, M, to change readily from one connection to the other, thus enabling the follower to be worked faster in the fore part of the operation than it can be worked by the train, and thereby increasing the capacity of the press. The pulley N, belts O P, shifting-pulleys Q R, and shifting-pinion F are fully described in my patent granted December 15, 1874, and numbered 157,799.

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

The combination, in drive mechanism for press followers, of pinion K and gear-wheel L, arranged upon the counter-shaft G and the driving-shaft J, respectively, with the pinion I, gear-wheel H, slide-pinion F, spur-wheel E, and the press-follower, pinion I and gear-wheel L being secured to a sliding sleeve, *c*, all as shown, and for the purpose specified.

BENJAMIN J. DAY.

Witnesses:

PETER CRAWFORD,

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