2 Sheets—Sheet 1.

E. M. IVENS & J. H. DORAND.

Cotton Press.

No. 200,615. **Patented Feb. 26, 1878.**

FIG. 1.

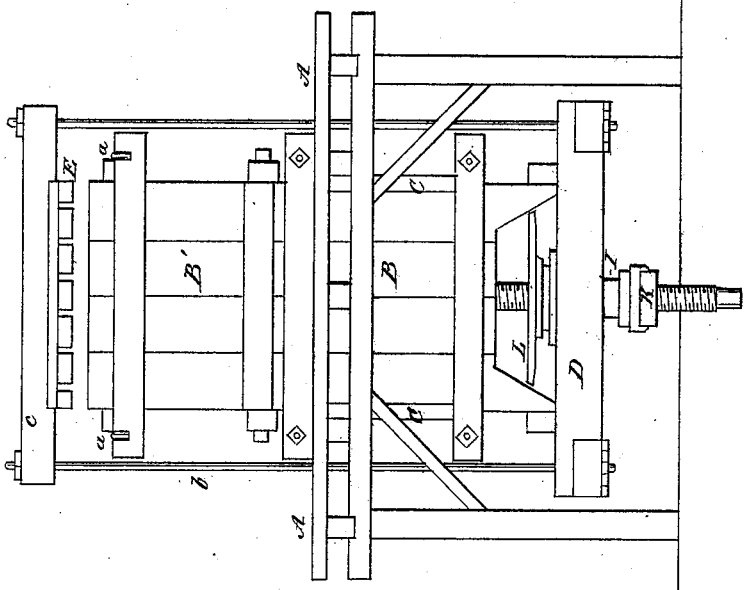
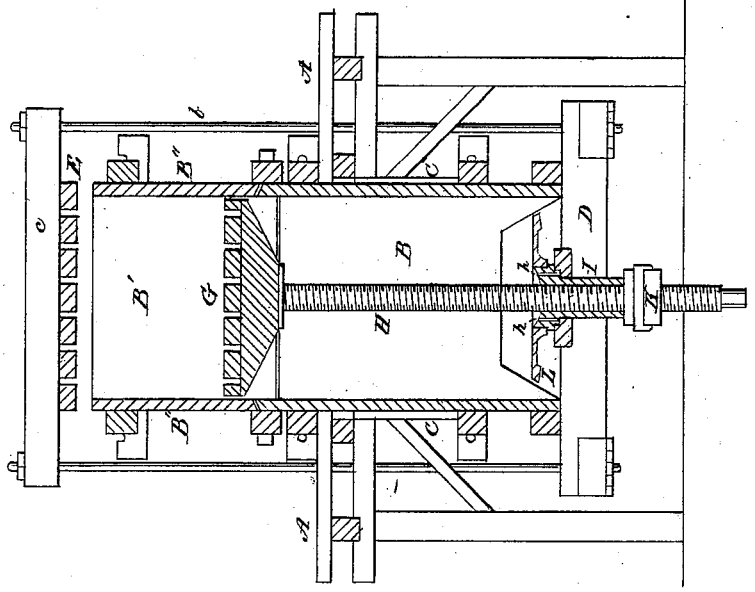


FIG. 11.



WITNESSES

D. P. Cowl
Leo. Bacon

INVENTOR

Edm. M. Ivens and
Joseph H. Dorand
by W. Morris Smith
atty.

2 Sheets—Sheet 2.

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FIG. III.

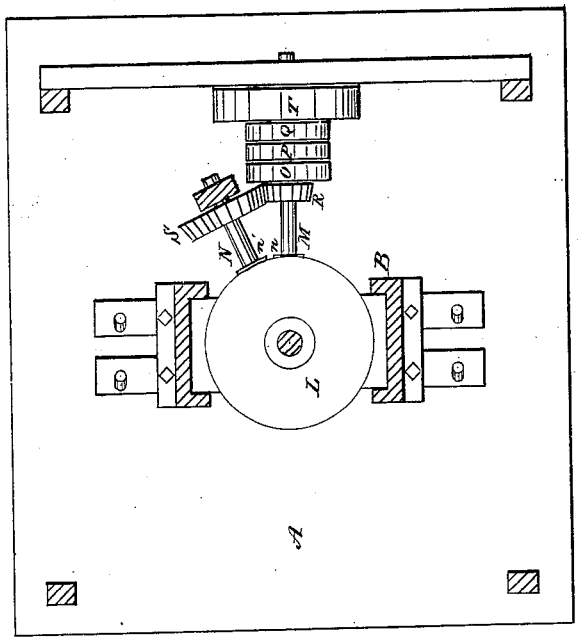
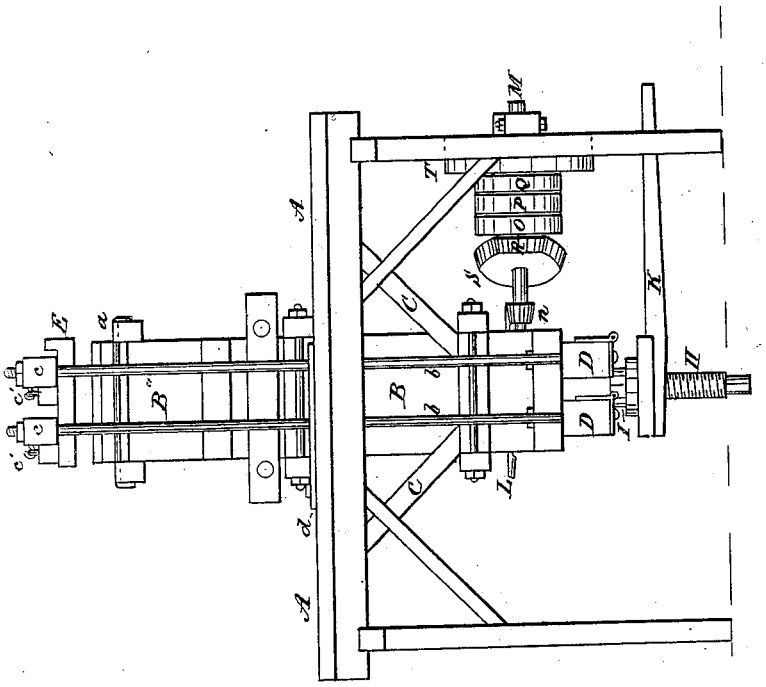


FIG. IV.



WITNESSES

D. Howl

Leo Bacon

INVENTOR

Edwd. M. Ivens and

Joseph H. Dorand

by W. Morris Smith

Atty.

UNITED STATES PATENT OFFICE.

EDMUND M. IVENS AND JOSEPH H. DORAND, OF NEW ORLEANS, LA.

IMPROVEMENT IN COTTON-PRESSES.

Specification forming part of Letters Patent No. **200,615**, dated February 26, 1878; application filed July 24, 1877.

To all whom it may concern:

Be it known that we, EDMUND M. IVENS and JOSEPH H. DORAND, both of the city of New Orleans, in the parish of Orleans and State of Louisiana, have invented an Improved Cotton-Press, of which the following is a specification:

This invention consists in a novel adaptation of gearing, whereby either horse or other power may be applied at pleasure, and whereby, also, either power may be used to operate other machinery simultaneously with or independent of the press.

Referring to the accompanying drawings, Figure I represents a front elevation of a press embracing our improvements. Fig. II is a vertical section of the same. Fig. III is a horizontal section of part of Fig. IV. Fig. IV is an end elevation of the same.

The same letters appearing on the several figures indicate like parts.

A represents an upper floor in a building, through an aperture in which the press-chamber B is suspended and braced by stays C. That portion of the chamber above the floor consists of two hinged sides, B′, and removable ends parts B″, which are secured in a closed position by hooked bars *a* in the usual manner.

To the lower beams D of the press, and which support the revolving nut I of the press-screw, are connected, in a hinge-like manner, two iron rods, *b*, at each end of the baling-chamber, extending upward to and connected with the beams *c c*, which extend lengthwise across the platen E, and to which said beams are hinged, as at *c′*.

To retain these rods *b* in a vertical position, to hold the platen E over the baling-chamber B while pressing the bale, are notched cleats *d*, pivoted to the floor, which, when the bale is being pressed, by running up the follower G, retain the platen E in such position, and, after the bale is bound, may be removed to release the rods and allow the platen to move off it on a level, where it is supported on said rods *b*, (which remain parallel with each other, whether vertical or inclined,) and in which latter position it may remain while the bale is removed and the chamber refilled to form another bale. The follower G and screw H are of ordinary construction.

The nut I, which is rotated to run the screw up or down, is supported in a metallic bearing, J, on the lower beams D, and is of cup form on its upper side, as shown in Flg. II, to hold oil for lubricating the screw H, and is also perforated with one or more holes, *h*, to convey oil from the same cup to the bearing of said nut. On the lower end of this nut is attached a beam, K, to the outer end of which the horse is hitched to rotate the nut. We also attach a bevel-wheel, L, to the upper end of the nut I, through which and the pinions *n n′*, by means of the shafts M N and pulleys O P Q, the nut may be operated by steam or water power, the driving-belt from which, being run on the pulley Q, which is fast on the shaft M, runs the screw up at a slow speed.

When the belt is on the pulley O, which is connected with the bevel-wheel R, but both loose on the shaft M, the bevel-wheel L and nut I will be rotated, through the bevel-wheel, S, shaft N, and pinion *n′*, in reverse direction and at double speed to run the screw down; and when the belt is on the pulley P, which is loose on the shaft M, the gearing and screw will remain at rest.

To utilize this gearing still further, we attach another pulley or band-wheel, T, on the shaft M, from which a belt may be carried to operate a cotton-gin, corn-mill, or other machine, either by power-belt on the pulley Q or by horse-power. In either case the screw should be run up and supported clear of the nut I when the press is not to be operated simultaneously, thus rendering this combined mechanism serviceable for other than baling purposes, or for operating various machines as well as the press, either by horse or other power, and economizing both space and cost over the usual machinery necessary for such purposes.

What is here claimed as new, and desired to be secured by Letters Patent, is—

The combination and arrangement of the shafts M N, pulleys O P Q, bevel-wheels R S, pinions *n n′*, bevel-wheel L, and nut I, substantially as and for the purpose set forth.

EDMUND M. IVENS.
J. H. DORAND.

Witnesses:
J. L. DORAND,
A. GRADENIGS.