No. 119,731. Patented Oct. 10, 1871.

James. M. Albertson's

Improvement in

Cotton Presses and Horse Powers

Combined

J M Albertson Inventor

Colby & Jeffery
N G Richards Witnesses

Fig 1

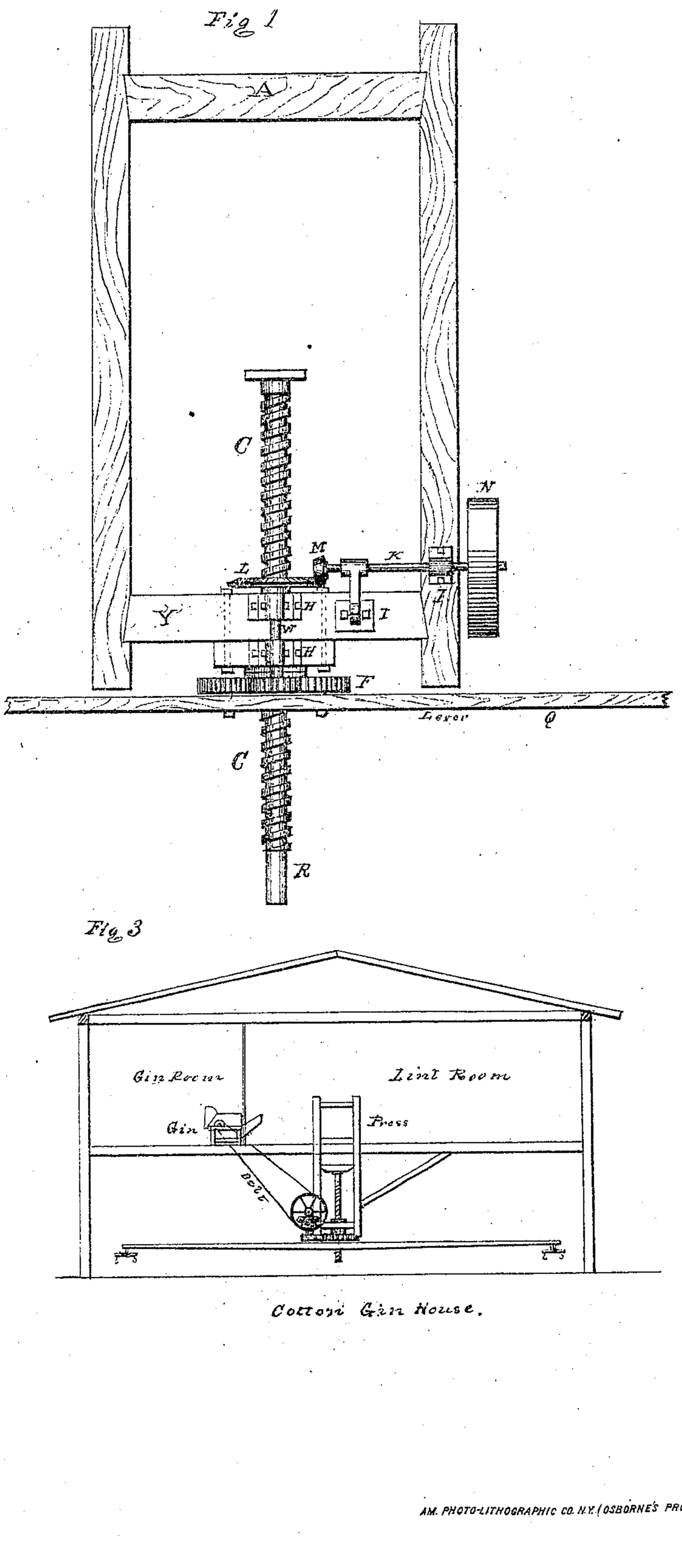

Fig 2

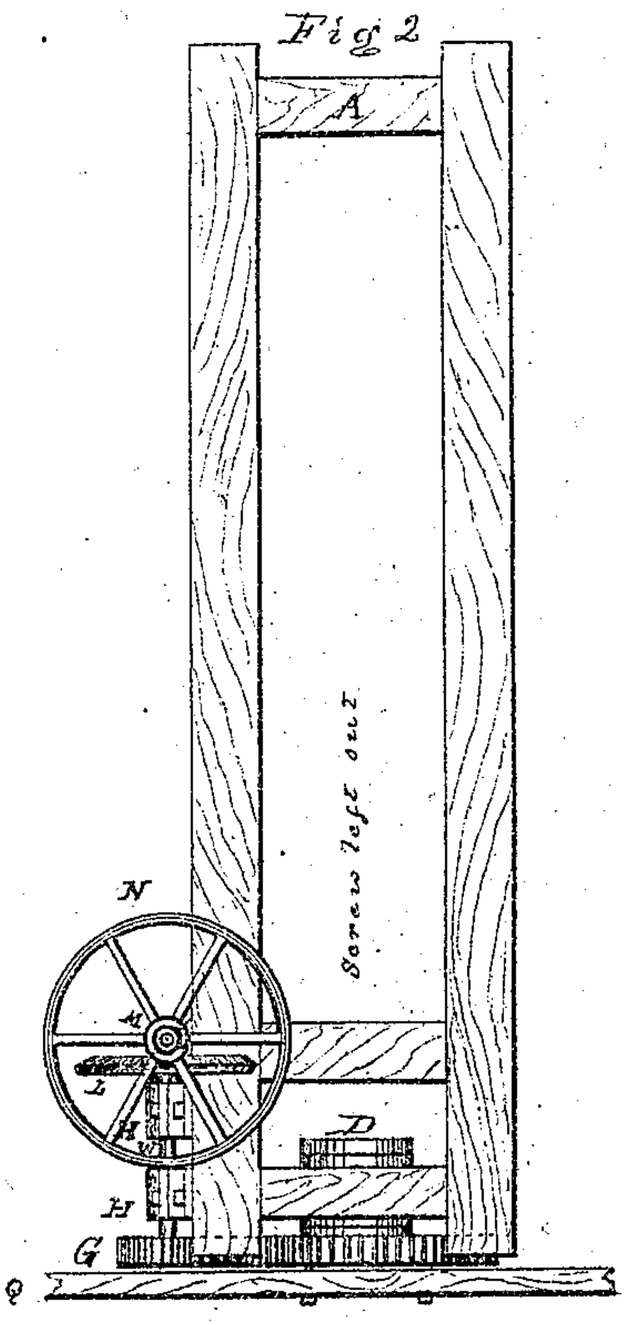

Fig 3

Cotton Gin House.

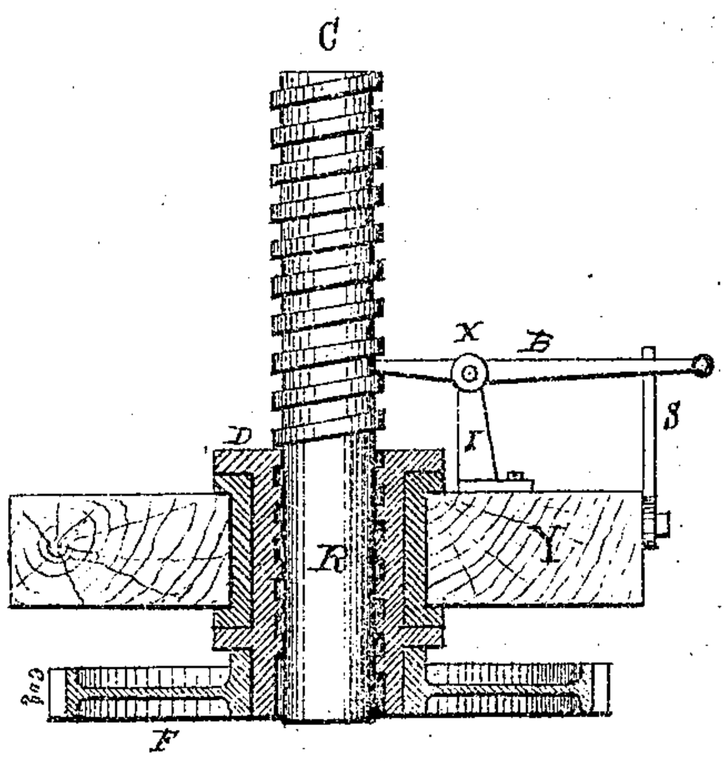

Fig 4

119,731

UNITED STATES PATENT OFFICE.

JAMES M. ALBERTSON, OF NEW LONDON, CONNECTICUT.

IMPROVEMENT IN COMBINED COTTON-PRESSES AND HORSE-POWERS.

Specification forming part of Letters Patent No. 119,731, dated October 10, 1871.

To all whom it may concern:

Be it known that I, JAMES M. ALBERTSON, of the town and county of New London, in the State of Connecticut, have invented an Improved Combination of a Horse-Power with a Screw Cotton-Press, of which the following is a specification:

This invention relates to an improved method of combining a screw cotton-press with a cotton-gin horse-power, so that the two machines may be placed within the building and operated by a single set of horse-levers, and by using many parts of the machines in common to produce in a single machine one that is more simple and compact in its arrangement, convenient in its operation, and economical in its construction.

Figure 1 is a front elevation of a machine embodying my invention. Fig. 2 is an end elevation of the same. Fig. 3 is a vertical section of a cotton-gin house with the machine placed in it, and is introduced to show more clearly the nature and object of the invention. Fig. 4 is a section through the center, showing the combination of the wheel F with the nut D, the screw C with the nut D, and also the manner of disconnecting the press from the horse-power by raising the screw out of the nut and suspending it by a lever.

In the drawing like letters refer to like parts.

In the drawing, C represents an ordinary cylindrical screw, working in the revolving nut D, and secured to the press-box by any of the methods now in use, and revolved by levers Q suitably attached. To this nut, above these levers, is fixed a gear-wheel, F, which surrounds it. This gears into a pinion, G, and so in turn through any desired number of gears, ending in a belt-pulley, N, from which a belt extends directly to the gin. As arranged in the drawing the wheel F gears into the pinion G. From this a vertical shaft, W, supported by bearings H, extends upward, and to its upper end is attached the bevel gear-wheel L, which gears with the pinion fixed to the shaft K, on which is placed the belt-pulley N. The revolution of the levers will now perform the two operations of revolving the wheels of the horse-power and also of raising and lowering the screw C of the press.

In order to use as a horse-power it is necessary to disconnect the screw, which is done by first running the screw entirely out of the nut and afterward elevating and suspending it a short distance above the nut. The levers now operate only the horse-power gearing, and the screw remains idle, shown in Fig. 4.

When it is desired to use the press, it is done by disconnecting any two gears of the horse-power, leaving the cotton-gin at rest. The screw is now let down into the nut, and moved up and down at will by the revolution of the levers, and so the machine may be changed from a cotton-press to a horse-power, and vice versa, as often as may be required.

At P, Figs. 1 and 4, the screw is shown prolonged below the thread into a plain cylinder. This is for the purpose of allowing a portion of the screw to remain in the nut when the machine is in use as a horse-power, and serves to direct the screw back into the nut. In Fig. 4 will be seen a lever, B, provided with a securing hook. One end of this is inserted into a notch in the screw C, and the screw raised a little above the nut, so that its thread will be clear. This lever B is then secured by the hook S and the screw held suspended until it is required for use, when the lever B is released and the screw drops into the nut D.

I do not claim the attaching of the gear-wheel to the nut D when the same is used for any other purpose than that of operating the mechanism of a horse-power, for wheels so attached are now used for revolving nuts to screw-presses. My claims are only designed to apply when this wheel becomes a part of a horse-power, connected with the press. I do not claim any of the features of either the screw-press or horse-power when used independently and not combined with each other.

Among the advantages claimed for this invention are the following, as shown in Fig. 3: First, heretofore, when a press operated by horses walking in a path has been used, it has been necessary to place it outside of the building, or to build a building large enough to contain within it two circular paths. By this arrangement but one path is used for both machines, and much expense is saved. Second, the press is in the lint-room, where the ginned cotton can be thrown in without trouble. Third, the belt can be taken direct to the gin without any intermediate shafts.

Fourth, the press-box forms a strong frame for the horse-power attachment, thus saving the entire expense of a separate frame.

Having thus described my invention, what I claim is—

1. The combination of the wheel F with the nut D, attached to the press-frame Y, and operated by the levers Q Q, when constructed and arranged as shown, and for the purpose specified.

2. The arrangement, in the cotton-press herein described, of the pinion G, vertical shaft W, bevel-wheels L and M, shaft K, and pulley N, all constructed and operating substantially as and for the purpose set forth.

3. In combination with the screw C, the lever B, stand I, hook S, and nut D, when arranged as shown, and for the purpose set forth.

JAS. M. ALBERTSON.

Witnesses:
COLEBY C. JEFFERY,
N. G. RICHARDS.