

C. T. CHRISTMAS.
Baling-Press.

2 Sheets—Sheet 1.

No. 228,036.

Patented May 25, 1880

Fig. 1.

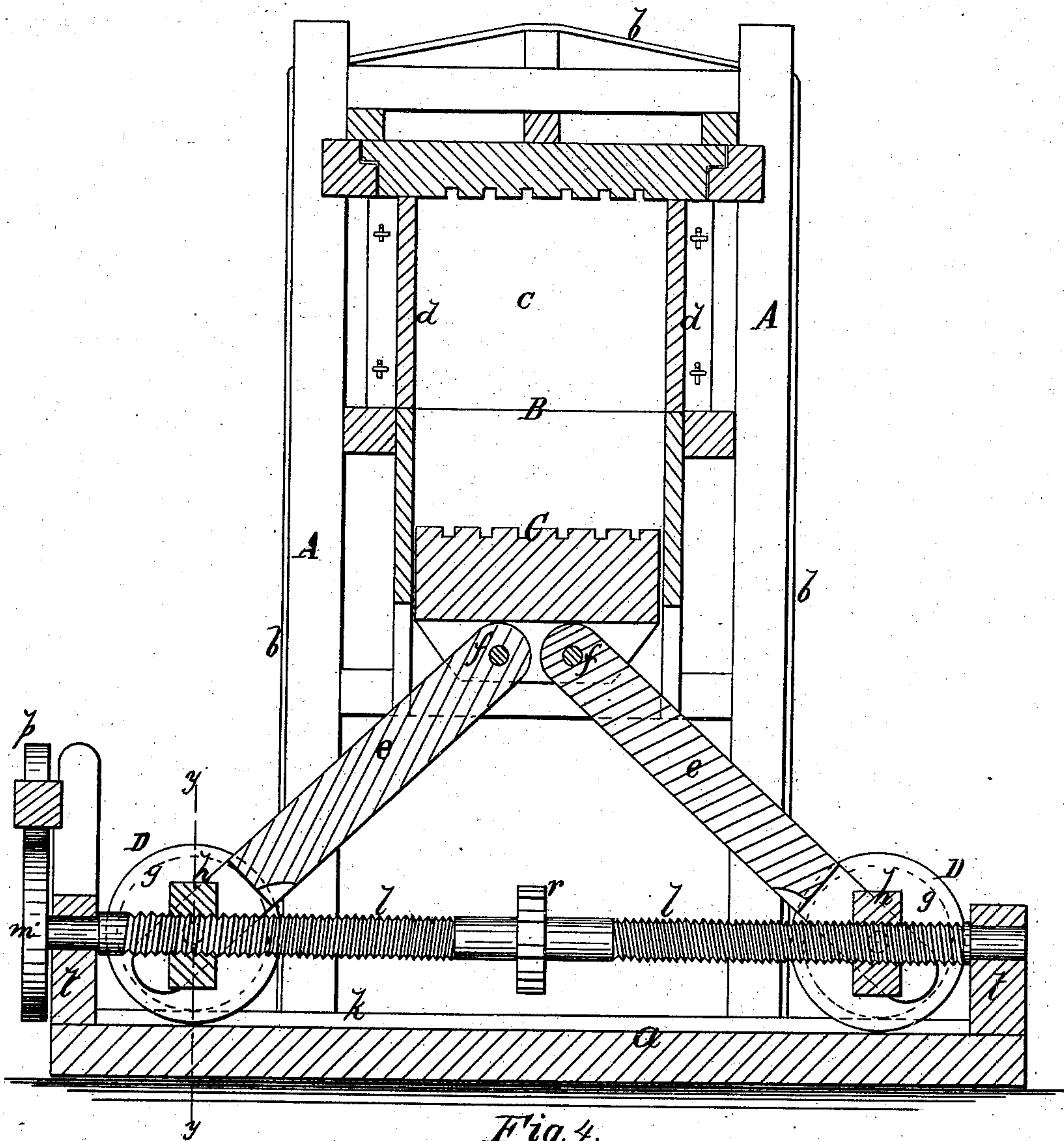
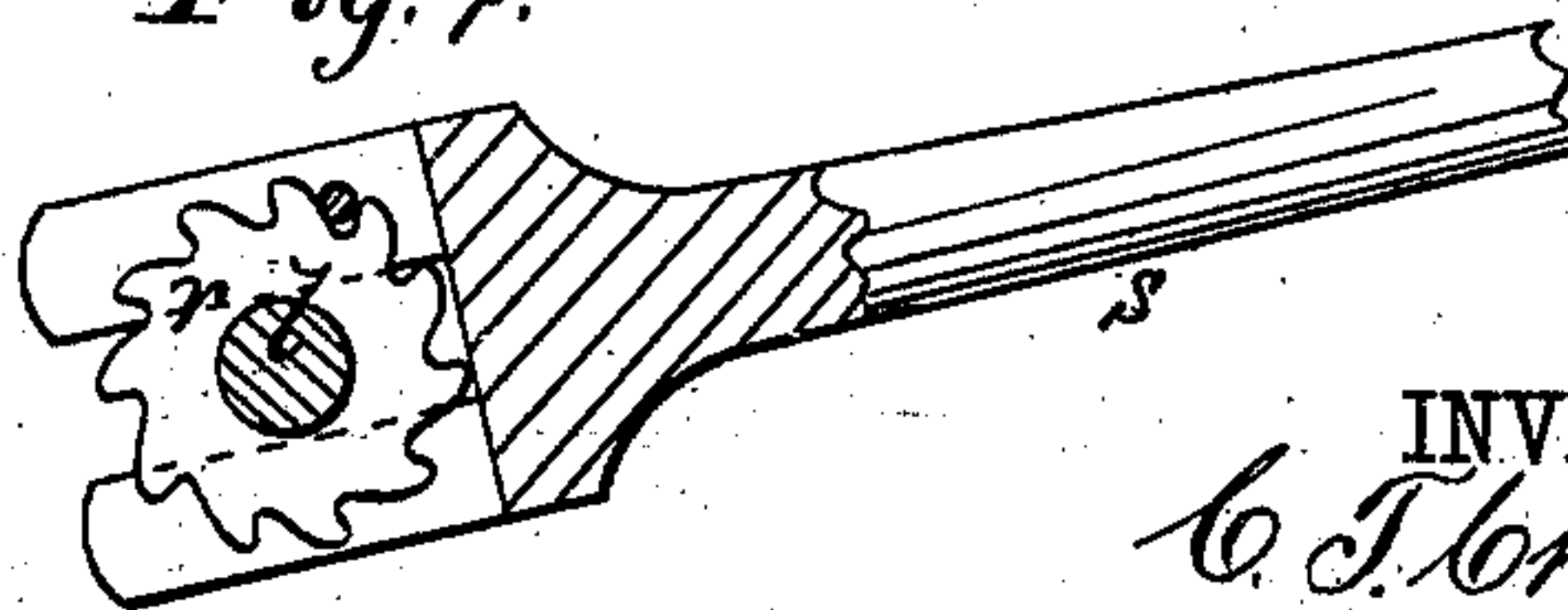


Fig. 4.



WITNESSES:

Henry V. Miller
C. Sedgwick

INVENTOR:

C. T. Christmas

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Fig. 2.

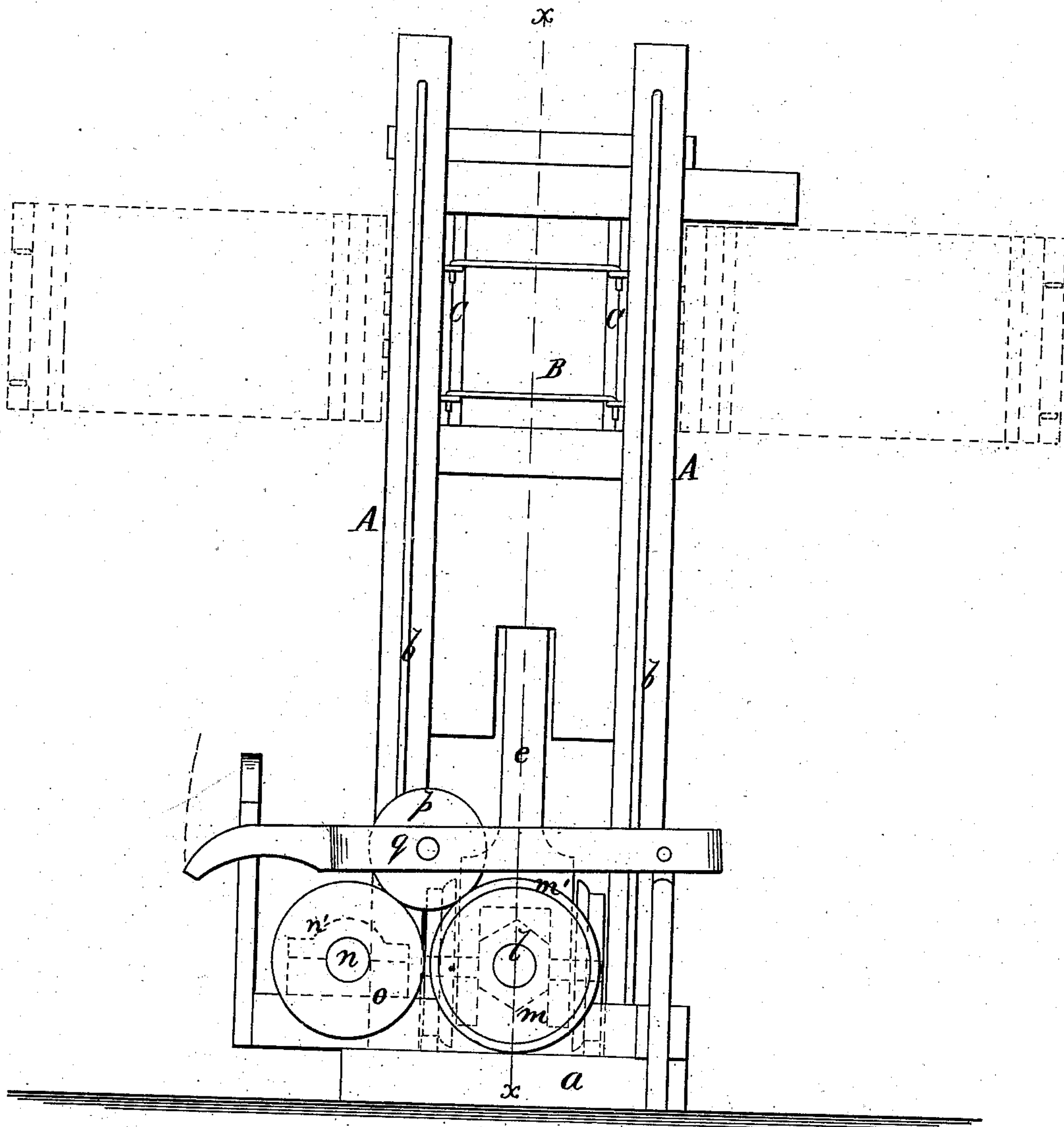
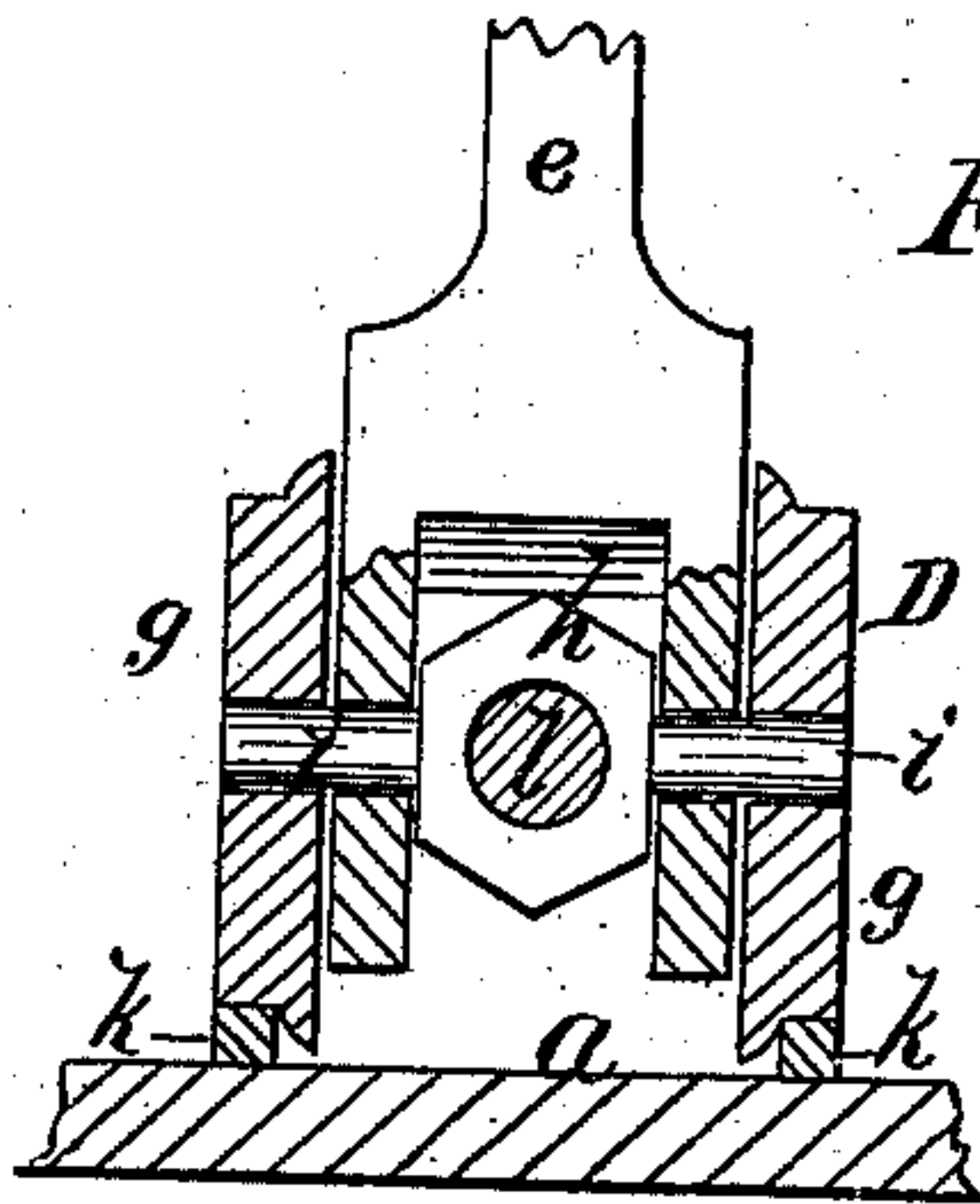


Fig. 3.



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UNITED STATES PATENT OFFICE.

CHARLES T. CHRISTMAS, OF RIVERTON, MISSISSIPPI.

BALING-PRESS.

SPECIFICATION forming part of Letters Patent No. 228,036, dated May 25, 1880.

Application filed February 2, 1880.

To all whom it may concern:

Be it known that I, CHARLES THOMAS CHRISTMAS, of Riverton, in the county of Bolivar and State of Mississippi, have invented a new Improvement in Baling-Presses, of which the following is a specification.

The invention consists in the combination of the general features of the press mechanism, as hereinafter described and embraced in the claim.

Figure 1 is a vertical longitudinal section of a press constructed in accordance with my invention. Fig. 2 is a side elevation of the same. Fig. 3 is a vertical transverse section on line *y y* of Fig. 1. Fig. 4 is a cross-section of the operating-screw, showing the manner of applying a hand-lever for the operation of the press.

Similar letters of reference indicate corresponding parts.

The press-frame *A* is supported upon a platform or bed, *a*, and tied by rods *b*.

B is the press-box, fitted in the upper part of frame *A* and formed with the hinged sides *c* and removable end boards, *d*.

C is the follower, sustained on the bars or levers *e l*, that are attached by knuckle-joints *f* to the under side of follower *C*, and are carried by the trucks *D*, that move on the platform *a*.

The trucks *D* each consist of wheels *g* and a nut, *h*, the wheels *g* being fitted upon arbors *i*, that project from the sides of the nut, and formed with flanges for retaining them on the track resting on the rails *k* of the platform *a*. The nuts *h* are upon the screw-shaft *l*, that is supported at its ends in bearings on the pillow-blocks *t*. Upon one end of screw-shaft *l* is a pulley or wheel, *m*, for the application of power to turn the screw, which may be applied in any desired manner.

I have shown a shaft, *n*, fitted in sliding boxes *n'*, carrying a pulley, *o*, in line with pulley *m* and friction-pulley *p* on a hand-lever, *q*, hung above the pulleys *o m*, so that the power of shaft *n*, which is to be driven continuously, may be transferred to the pulley *m* and screw by pressing the friction-pulley *p* in contact with pulleys *m* and *o*, thereby turning the screw in one direction; or the pulleys *m* and *o* may be brought directly in contact to turn the screw in the other direction. The pulley *m* is shown as provided with a surface, *m'*, of elastic material, to cause adhesion.

The screw-shaft *l* may also be operated by

hand. For this purpose it is fitted at its mid-length with a cogged or ratchet wheel, *r*, for the application of a suitable hand-lever, *s*, as shown in Fig. 4, to turn shaft *l*, and by having two wheels, *r*, the screw may be kept in continuous motion.

The screw-shaft *l* is formed right and left handed at opposite ends, as shown, so that the trucks *D* will be moved simultaneously in opposite directions, to compensate for the varying angularity of the levers *e* with reference to the screw-shaft *l*. The ends of levers *e* are forked to pass at each side of the nuts *h*, (see Fig. 3,) and the arbors *i* pass loosely through the forked ends.

In operation the follower *C* will be brought to its lowest point by turning screw-shaft *l* until the trucks *D* are at the extreme ends of the screw. The material is then to be placed in the press-box, the box closed, and the screw *l* turned in the direction for moving the trucks *D* to the center, thereby bringing the levers *e* nearer to a perpendicular position and forcing up the follower *C*.

It will be seen that the movement of the follower will diminish gradually in speed and extent as the trucks approach the center, and the compressive power will increase in proportion; also, that as the levers *e* come more into a perpendicular position the parts will be more capable of withstanding the strain, as the force will then be applied endwise of the levers, and the screw will be sustained by the trucks. Thus the greatest power and strength are utilized at the time of greatest compression, and greater speed obtained when required. The pressure is also equal and uniform upon all parts of the bale.

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

In a baling-press, the combination, with the follower *C*, pivoted arms *e e*, the trucks *D*, and the platform *a*, having rails *k*, of the right-and-left-hand screw *l*, carrying the nuts *h*, the middle wheel, *r*, and the end wheel, *m*, the shaft *n*, fitted in sliding boxes *n'*, and carrying a pulley, *o*, in line with pulley *m*, and the lever *q*, carrying friction-pulley *p*, as shown and described.

CHARLES THOMAS CHRISTMAS.

Witnesses:

F. A. MONTGOMERY,
E. I. COBURN.