No. 661,368. Patented Nov. 6, 1900.

E. R. COLLINS.

HAND POWER PRESS.

(Application filed Mar. 6, 1900.)

(No Model.) 2 Sheets—Sheet 1.

Fig. 1.

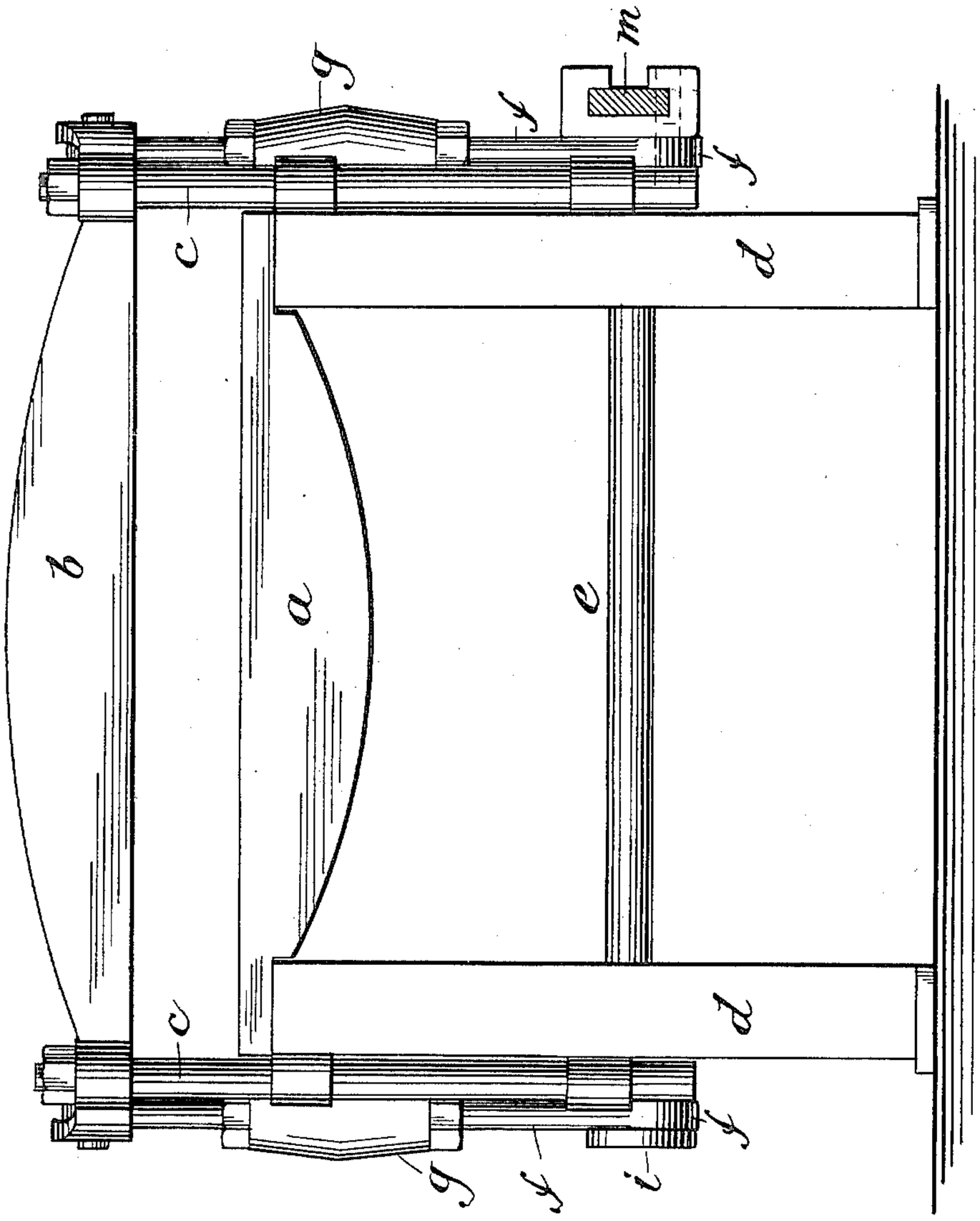

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Fig. 4,

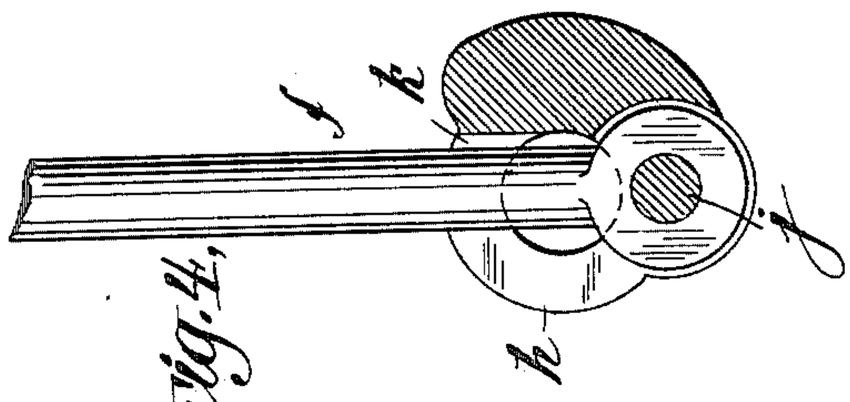


Fig. 3,

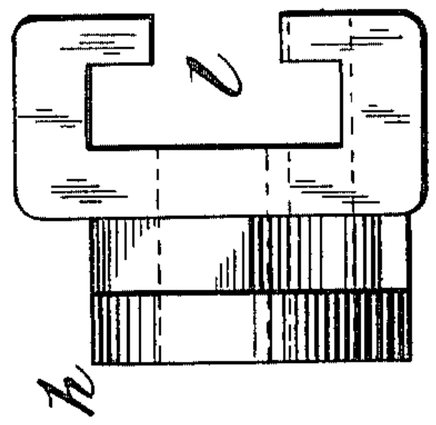
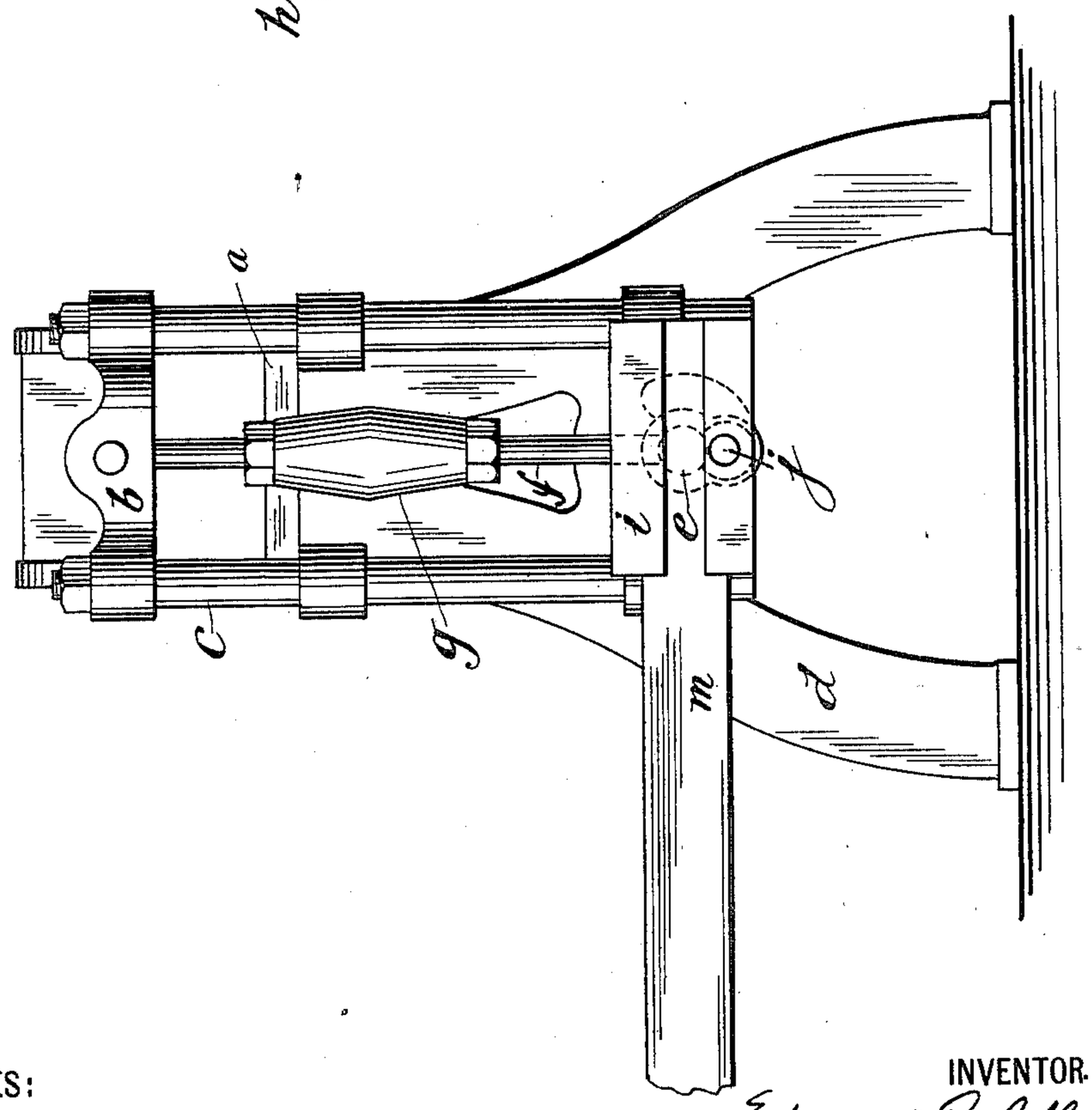


Fig. 2,



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UNITED STATES PATENT OFFICE.

EDMUND R. COLLINS, OF NEW YORK, N. Y., ASSIGNOR TO ABEDNEGO DEWES, OF SAME PLACE.

HAND-POWER PRESS.

SPECIFICATION forming part of Letters Patent No. 661,368, dated November 6, 1900.

Application filed March 6, 1900. Serial No. 7,514. (No model.)

To all whom it may concern:

Be it known that I, EDMUND R. COLLINS, a citizen of the United States, and a resident of New York, in the county of Kings and State of New York, have invented certain new and useful Improvements in Hand-Power Presses, of which the following is a specification.

This invention relates to hand-power presses; and it consists, mainly, in an improved crank-power-transmitting device having an outboard-bearing for the crank-pin and also having a socket for the operating-handle formed on the outboard part of the crank which is so formed in the opening in which the end of the connecting-rod is placed as to act in conjunction with the connecting-rod as a stop to limit the movement of the operating-handle, the crank-head and accompanying parts being preferably cast or formed integral.

In the accompanying drawings, forming part of this specification, Figure 1 is a front elevation of a hand-power press embodying my improvement. Fig. 2 is a side elevation of the same. Fig. 3 is a front view of the crank enlarged, and Fig. 4 is a sectional view of the improved crank-power-transmitting device.

My improved power-transmitting device is applicable to most styles of hand-power-operated presses, the press shown on the drawings being of that class having a stationary bed *a*, upon which the work or material to be operated upon is placed, and a vertically-reciprocating platen *b*, held and controlled by vertical guide-rods *c c*, which are fitted to slide in guide-bearings formed on the legs or frames *d d*, arranged to support the bed *a* at its ends.

In bearings formed in the legs *d d* is fitted the shaft *e*, located longitudinally beneath the bed *a*, and connecting-rods *f f* are pivotally connected to the ends of the platen *b*, so as to aline with the shaft *e*. The rods *f f* are provided with turnbuckles *g g*, by means of which their lengths may be varied and the platen *b* adjusted relatively to the bed *a* as desired.

On each end of the shaft *e* is firmly secured a crank-head *h*, formed, as shown, with an outer side piece *i*, between which and the head *h* is located the lower end of one of the connecting-rods. A crank-pin *j* passes through the outer piece *i*, the end of the rod *f*, and into the head *h*, the piece *i* thus forming an outboard-bearing for the crank-pin and counteracting excessive lateral strains on the crank-pin under heavy pressures of operation. The part *k*, connecting the main part of the head *h* and outboard-bearing *i*, acts as a stop to prevent the crank-pin passing beyond its lower center by contacting with the side of the rod *f*, which limitation of movement also determines the lowest position in which the handle *m* can be set. This handle *m* is fitted in the socket *l*, arranged on the side of the outer side piece *i* of the crank, as shown, at one side of the press. Both cranks may be provided with such handle-sockets, so that the operating-handle may, as desired, be placed at either end of the press.

By this construction of crank, all the parts *h*, *i*, and *k* of which it is proposed to make integral, a strong, powerful, and cheap power-transmitting device is produced, the power being supplied to the work as the crank-pins are moved down toward their lowest centers and the greatest power applied as the operating-handle is being moved into its lowermost position, and the application of the device to the style of press shown constitutes as a whole a neat and powerful machine adapted for pressing and cutting operations.

I claim as my invention—

1. In combination with the bed, platen, shaft and platen-connecting rods and crank-pins of a press, of a crank device comprising a head adapted to be secured to the end of the shaft, and outboard-bearing for the crank-pin which connects the end of a connecting-rod to the crank device, and a connecting-piece joining the head and the outboard-bearing and acting as a stop in conjunction with the connecting-rod.

2. In combination with the bed, platen shaft and platen-connecting rods and crank-pins of a press, of a crank device comprising a head adapted to be secured to the end of the shaft, and outboard-bearing for the crank-pin which connects the end of a connecting-

rod to the crank device, a connecting-piece joining the head and the outboard-bearing and acting as a stop in conjunction with the connecting-rod, and a handle-socket extending from the side of the crank and forming a part of the outboard-bearing.

3. In combination, the connecting-rod of a press, and a crank having an outboard-bearing for the crank-pin which connects the rod to the crank, and a stop-piece, which contacts with the connecting-rod to limit the movement of the crank.

Signed at New York, in the county of New York and State of New York, this 23d day of February, A. D. 1900.

EDMUND R. COLLINS.

Witnesses:
ARTHUR C. BLATZ,
GEORGE A. GUMBS.