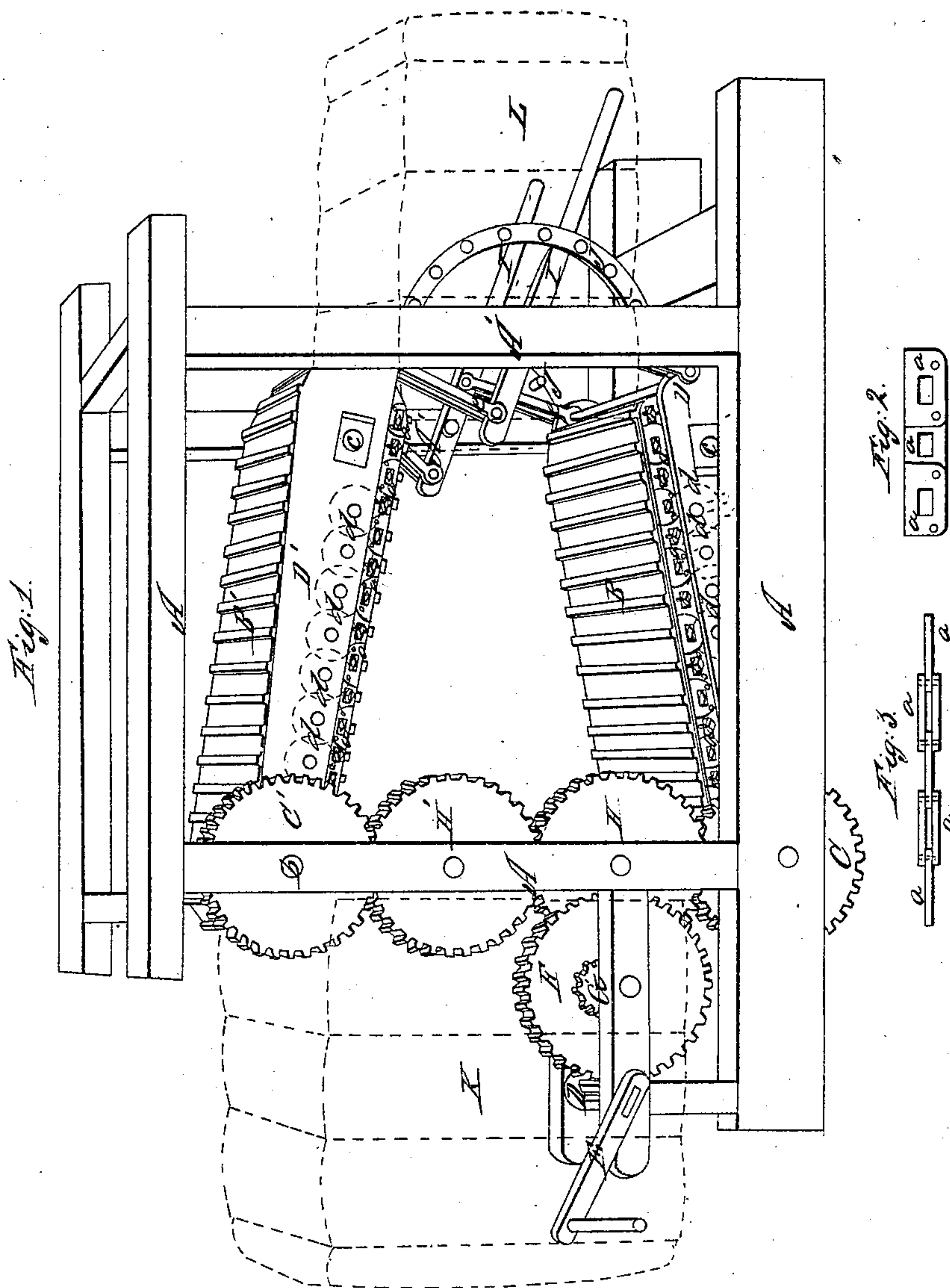


Potter & Kelsey,
Cotton Press,
No. 1,798, *Patented Sept. 25, 1840.*



UNITED STATES PATENT OFFICE.

JAMES A. POTTER, OF PROVIDENCE, RHODE ISLAND, AND JAMES E. KELSEY, OF POUGHKEEPSIE, NEW YORK.

IMPROVEMENT IN PRESSES FOR COTTON, HAY, &c.

Specification forming part of Letters Patent No. 1,798, dated September 25, 1840.

To all whom it may concern:

Be it known that we, JAMES A. POTTER, of the city of Providence, in the State of Rhode Island, and JAMES E. KELSEY, of Poughkeepsie, in the county of Dutchess and State of New York, have invented an Improved Press for Pressing Cotton, Hay, and other Articles, by which press bales or bundles of such articles may be compressed so as to occupy a much smaller space than they do as ordinarily stowed on board of vessels or elsewhere; and we do hereby declare that the following is a full and exact description thereof.

The part of our press within which the pressing is to be effected consists of two endless-chain platforms, constructed in a manner resembling the endless-chain floors or platforms used in many horse-powers. These endless-chain platforms are placed one above the other in such manner that they shall be nearer together at one end than they are at the other, provision being made to alter the degree of their inclination or the relative distance of their two ends.

Figure 1 in the accompanying drawings shows our press in perspective, A A being its frame, which may be placed upon wheels, so as readily to transport it from place to place. B B' are the two endless-chain platforms, which are composed of slats connected together by means of links at each of their ends, which links are to pass round wheels or drums at each end of the platforms. The links are marked *a a*, and are represented as having the ends of iron bars passing through mortises or openings made in them for that purpose. The iron bars are firmly fastened to the slats, and extend their whole length to render them strong and inflexible. These we make of square bars of inch and a half iron, and we form a tenon on their ends to enable them to pass through the mortises made in the links. These tenons are so formed as to allow the requisite play in the mortises to admit of their turning freely round the drums at the ends of the platform. The links may be connected together in various ways. Those that we have used have been made out of iron bars three-eighths of an inch thick and two inches and three-quarters wide. Their length has been four and one-half inches. Fig. 3 shows the form of these links, which we

have connected together by strong joint-pins. Every other link is doubled, so as to embrace an intermediate link between them, as shown in Fig. 3.

The gearing for moving the platforms may be arranged in various ways. In Fig. 1, C C' are cog-wheels on the axes of the drums which sustain the endless platforms. These axes have cog-wheels at each of their ends, within the plates or arms, to be presently described, the cogs of which wheels mesh in between the iron bars on the under sides of the slats, and thus move the endless platforms forward exactly upon the same principle as endless floors are geared to the driving-shaft of one of the drums in many horse-power machines, and which does not, therefore, require any further description, the same being well known. D is a pinion, represented as driven by means of the winch E, and gearing into the cog-wheel F, a pinion, G, upon the shaft of which and behind the wheel gears into the wheel H. H' is an intermediate wheel, gearing into H and into C', for the purpose of giving the proper direction to the platform B'. To sustain the axes of the drums of the endless floors and the friction-rollers against which they bear, we employ four plates or arms of cast-iron, D' D'', in which the gudgeons *b b* and *c c* of the drums run. The gudgeons *b b* pass also through the frame of the machine, as they are always to remain at the same distance from each other. The dotted lines *d d d* show the place of friction-rollers on the inner sides of the plates or arms D' D'', for sustaining the pressure of the endless floors. I I are levers, by means of which the ends of the endless floors with which they are connected may be made to approach toward or to recede from each other. The levers have the fulcra on the posts A' A', and they are connected by links *e e e e* with the upper and lower platforms, which they move simultaneously. The levers I I are retained in place by pins, projections, or catches on the arched pieces J J.

Operation: The bales or bundles which are to be pressed are to be passed in between the two platforms at that end at which they are at the greatest distance apart, and the machine being in motion they will be carried toward the opposite ends, and reduced to a thickness

corresponding with their distance from each other. As they leave this end, the baling-rope or other binding material is to be taken up and secured, and the operation is completed. The dotted lines K represent a bale entering the machine, and the lines L one which is being delivered from it.

Should it be desired, the geared end of the platforms may be made adjustable, so as to adapt them to bales of different sizes. This may be effected by changing the intermediate wheel, H', for one of another size, and allowing the gudgeons b to run in sliding boxes, which may be raised or lowered by suitable adjusting-screws.

Having thus fully described the manner in which we construct our improved press, and shown, also, the manner in which the same operates, what we claim as our invention

therein, and desire to secure to ourselves by Letters Patent, is—

The employment of two revolving endless-chain platforms, so constructed as that they shall be nearer together at one end than they are at the other, in order that a bail or other article passed between them shall be reduced in thickness, said platforms being made adjustable, and otherwise formed and operating substantially in the manner herein set forth.

JAMES E. KELSEY.

JAMES A. POTTER.

Witnesses to the signature of Jas. E. Kelsey:

THOS. P. JONES,

B. K. MORSELL.

Witnesses to the signature of Jas. A. Potter:

C. KELSEY,

JOSEPH KUNZ.