

J. WILKES.
Baling-Press.

No. 214,540.

Patented April 22, 1879.

Fig 2.

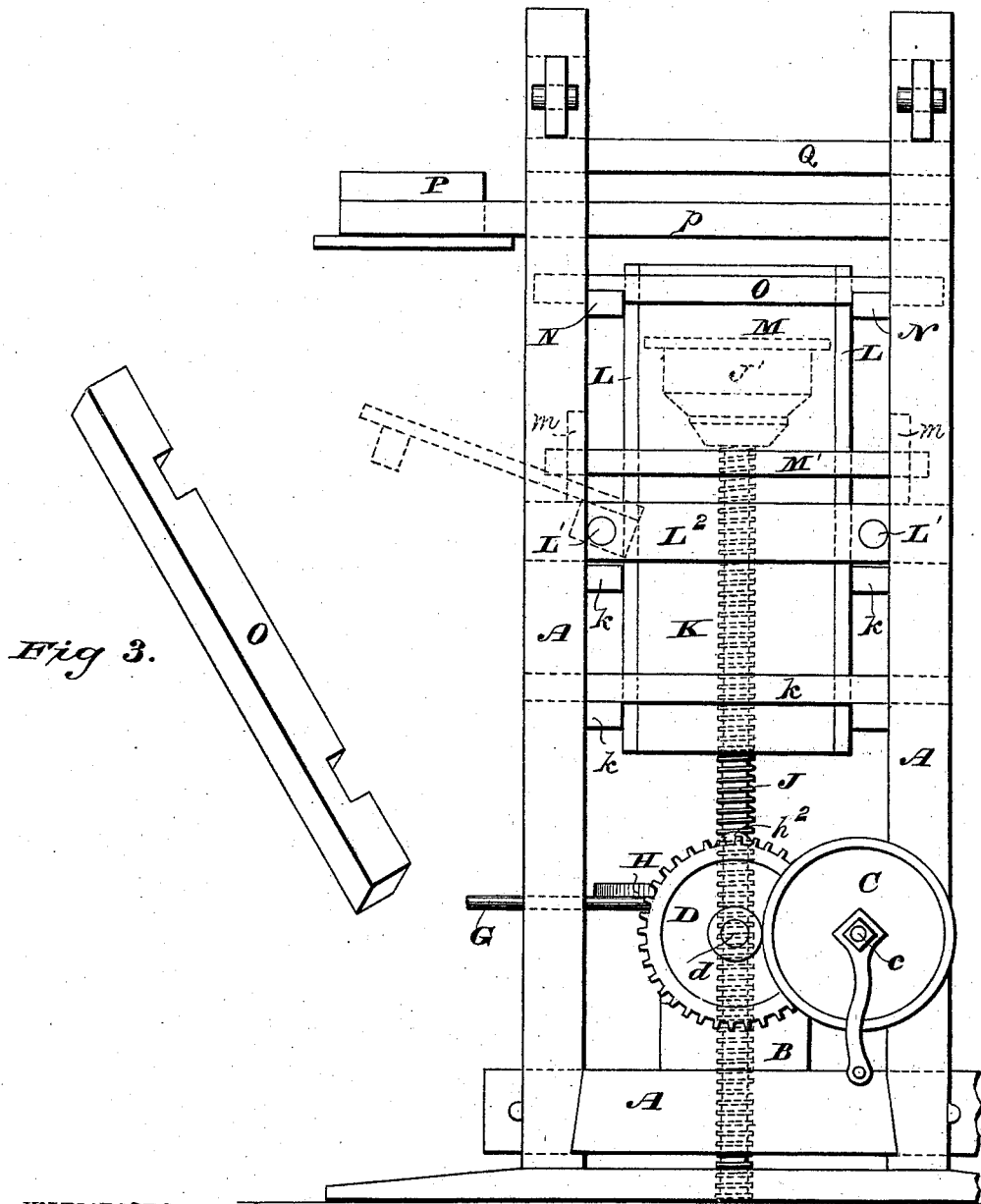


Fig 3.

WITNESSES

Geo W. Breck.
Wm F. Kilgore

INVENTOR

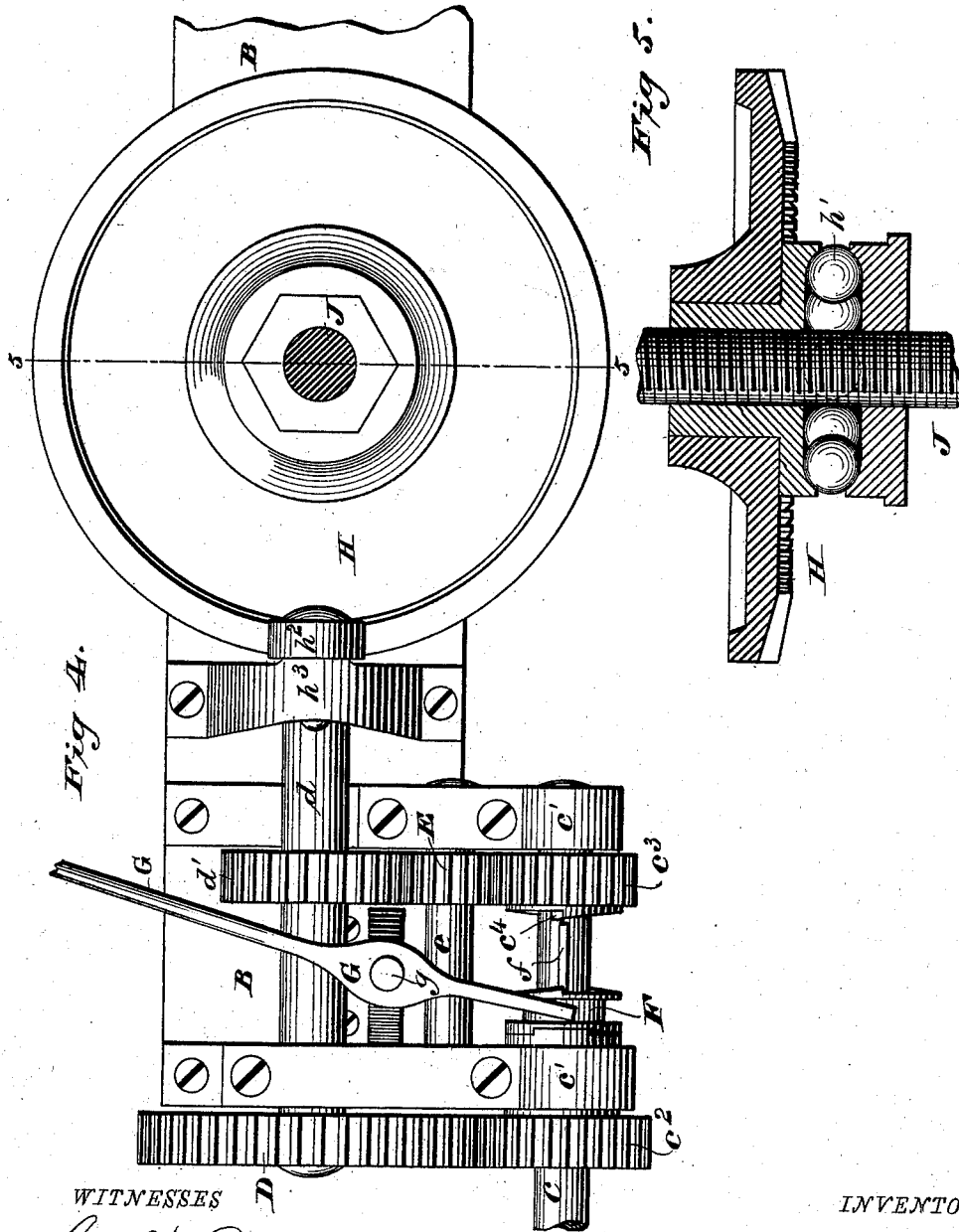
By his Attorneys

John Wilkes
Baldwin, Hopkins & Peyton.

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UNITED STATES PATENT OFFICE.

JOHN WILKES, OF CHARLOTTE, NORTH CAROLINA.

IMPROVEMENT IN BALING-PRESSES.

Specification forming part of Letters Patent No. **214,540**, dated April 22, 1879; application filed September 16, 1878.

To all whom it may concern:

Be it known that I, JOHN WILKES, of Charlotte, in the county of Mecklenburg and State of North Carolina, have invented an Improved Baling-Press, of which the following is a specification.

In the accompanying drawings, Figure 1 is a front elevation of my improved press with part of the frame broken away. Fig. 2 is an end elevation of the same; Fig. 3, a perspective view of the clamping-bar for securing the doors of the press. Fig. 4 is an enlarged plan view of the gearing with the press-frame removed; and Fig. 5 is a section on the line 5 5 of Fig. 4.

A is the frame of the press. In the lower part of the frame, and extending lengthwise of it, is a strong beam, B, upon which the driving-gearing is mounted, and through which the press-screw J passes. A suitable driving-pulley, C, is fixed to a shaft, *c*, which revolves in bearings *c*¹ *c*¹. This shaft carries near its outer end, next the driving-pulley, a loose pinion, *c*², which gears into a wheel, D, fixed upon the outer end of the shaft *d*. This pinion *c*² has upon its inner side a collar or sleeve extending through the outer bearing, *c*¹, and having thereon suitable clutch-teeth for engagement with a sliding clutch, F. Upon the inner end of the shaft *c* is another loose pinion, *c*³, having upon its outer face clutch-teeth, also for engagement with the sliding clutch. This pinion *c*³ gears into a spur-wheel, E, mounted upon the inner end of an intermediate shaft, *e*, which, in turn, gears into a wheel, *d'*, fixed to the shaft *d*. A clutch, F, slides upon the shaft *c*, and is secured thereon by a feather, *f*. The clutch is operated by means of a shifting-lever, G, pivoted upon a post, *g*. The pinions *c*² and *c*³ are prevented from slipping endwise on the shaft *c* by small studs or projections *c*⁴ on said shaft. A suitable bevel-gear, *h*, secured upon the shaft *d*, near its inner end, drives a large horizontal bevel-wheel, H, through the threaded eye of which the press-screw works.

It will be obvious that by engaging the clutch F with the outer pinion, *c*², motion will be imparted through the gearing to the press-screw, (in this case raising it,) and that by engaging the clutch with the inner pinion, *c*³,

a reverse movement will be given the press-screw. The press can thus be started, stopped, or reversed simply by shifting the clutch-lever to engage with one or the other of the pinions, or to rest between them.

The wheel H is supported and revolves upon anti-friction balls *h*¹, and is held down in engagement with the bevel-wheel *h* by a roller, *h*², mounted on an upright standard, *h*³, which relieves the press-screw and its sockets from any undue strain.

A follower, J', having recesses for baling-strips, is secured upon the upper end of the press-screw J.

The four walls K of the compressing-chamber are supported and braced by suitable beams *k*.

It is necessary to tie and remove the bales from the press at different elevations, owing to their varying sizes, and I therefore provide doors, placed at different heights in the compressing-chamber, and hinged at their lower sides, so as to swing out and down. The two side doors, L L, are placed at the same height, the two end doors, M M, being slightly higher. The doors L L turn with strong beams L¹ L¹, which extend across their lower edges, and have their bearings in stout cross-beams L² L². The side doors turn with suitable beams M' M', which extend across them at their lower edges and engage in bearings *m m*.

The doors are securely locked and braced against lateral strain while the bale is being compressed by the following means: Across the side doors, near their tops, extend bars N N, the ends of which project beyond the edges of the doors. When the doors are closed the end doors fit between those of the sides, and they are all locked and secured by the two clamping or locking bars O O, provided with notches or recesses fitting over the bars N N.

By this construction the doors are made of much greater strength, and are more firmly secured against all strains than can be accomplished by the use of hinges and other ordinary fastenings.

The head-block P slides upon suitable ways *p p*, so as to be moved aside for the purpose of filling the press, and is held firmly down by two cross-beams, Q Q.

It is obvious that instead of having the fol-

lower move upward, as in the present instance, the construction could be reversed, and it could be made to move downward.

It is also obvious that by duplicating the compressing-chamber and the parts accessory thereto the press could be converted into a double-acting press, that could be worked by a continuous movement of the driving-pulley, as at present.

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

In a baling-press, the combination of the bevel-wheel H, mounted upon suitable anti-friction balls, the press-screw J, carrying the recessed follower J', and the standard h³ and roller h², whereby the screw and its sockets are relieved from strain, as set forth.

In testimony whereof I have hereunto subscribed my name.

JNO. WILKES.

Witnesses:

A. B. SPRINGS, Jr.,
ARCH. GRAHAM.