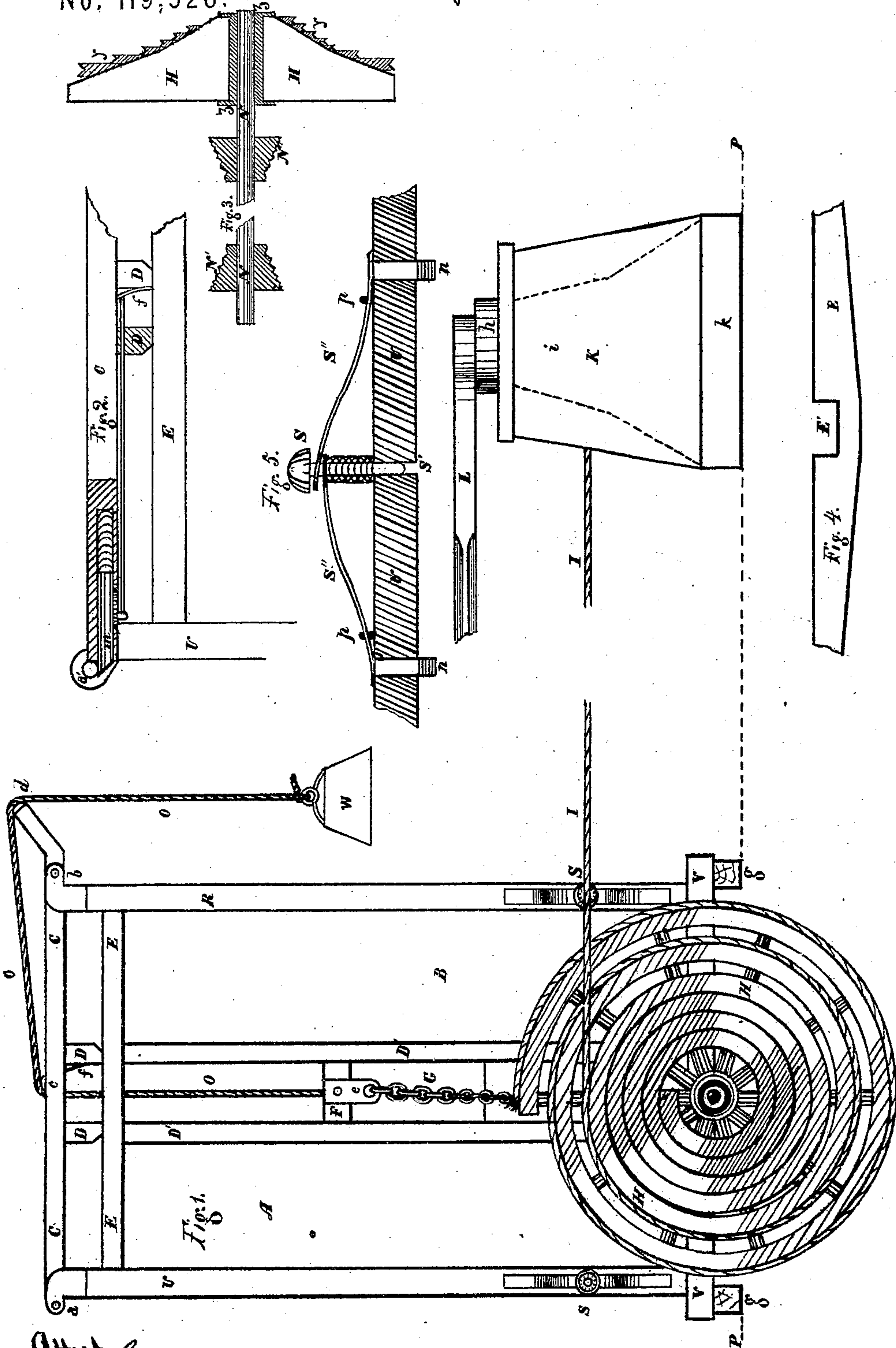


Peter L. Negley,
No. 119,528.

Hay and Cotton Press
Patented Oct. 3, 1871.



Attest
Geo. Rieger
George Rieger

Peter L. Negley, inventor
By C. E. McDonald
his Attorney in fact

UNITED STATES PATENT OFFICE.

PETER L. NEGLEY, OF CASTLETON, INDIANA.

IMPROVEMENT IN HAY-AND-COTTON PRESSES.

Specification forming part of Letters Patent No. 119,528, dated October 3, 1871.

To all whom it may concern:

Be it known that I, PETER L. NEGLEY, of Castleton, in the county of Marion and in the State of Indiana, have invented an Improved Hay-and-Cotton Press; and I do hereby declare that the following is a full, clear, and exact description thereof, reference being had to the accompanying drawing and to the letters and figures of reference marked thereon.

The nature of the invention consists in the construction and use of the hay-and-cotton press hereinafter described; said press to be made of wood and iron and such other materials as are usually used for constructing like machines.

To enable others skilled in the art to make and use my said invention, I proceed to describe it more particularly as follows, viz.:

Figure 1 of the accompanying drawing is a view of the said press. *b* and *g g* are the sills on which it is constructed. *R* and *U* are the corner-posts, which extend a little above the plate *E*, as represented. This plate *E* is notched in the middle of the inside, as represented by *E'* of Fig. 4, to accommodate the passage of the following-block *F*. *D'* and *D'* are also upright posts, which are placed near the middle of the press to act as guides for the following-block. *A* and *B* are so securely planked up as to inclose the sides of the press. The opposite side is similar to this. The adjacent sides are conveniently constructed, and supplied each with a door for withdrawing the bale when it has been bound up. *F* is the following-block, to which is attached, by means of the metal strap *e*, the chain *G* and the rope *O*. The chain *G* tapers so that it is the largest at the end next the following-block. The rope *O* passes over two pulleys, one at *c* and the other at *d*, and is attached to the weight *W*. *C C* is a sweep or lever, hinging on *b* and bent near the pulley *d*, as represented in the drawing. Into this lever *C C* are mortised the two arms or studs *D* and *D*, as represented. Fig. 2 is a partial section of this lever. It has a spring-latch, *m*, fastening on the pin *a'*, which passes through the bar 2. This latch is controlled by a wire, attaching it to the spring *f*, all arranged as represented in the drawing. *H H* is a helical or involute sheave-wheel, fastened on the shaft *N* and actuated by the rope *I*, which is operated by the capstan *K*. This shaft *N* and the wheel *H* are shown more fully in section in Fig. 3. *X* and *X* are the spokes of the

wheel, which are wide at the bottom and narrow at the top, and tapered as represented in the drawing. *Z* is the hub in which these spokes are fastened; *y*, the section of the helical or involute sheave, which is fastened upon the spokes *X*. Upon this shaft are two smaller helical sheaves, represented respectively by *N'* and *N'*. These are arranged at each side of the press, so that the chain *G* may wind upon them. These sheaves are conical, and so arranged that the smallest part of the tapered chain *G* will wrap on the big end of the cone first, gradually drawing on the larger portion of the chain until the cone is full. The shaft *N* is placed directly under the middle of the press from side to side, so as to accommodate the machinery, as aforesaid. The doors are fastened with a spring-latch, *S*, more fully represented in section in Fig. 5. *S* is a cylindrical slide, around which is formed the helical spring *t t*. *n* and *n* are the sliding bolts or latches. *S'* and *S'*, the levers by which they are actuated. To loosen the latch, *S* is pressed down with the hand, bearing down the ends of *S'*, compressing the spring *t*, and drawing out the latches *n* and *n*. When the pressure is removed the spring *t* carries them all back to their original position.

To use the press the rope *I* is unwound from the capstan and wound on the helical wheel *H*. The chain *G* is unwound from the helical sheave *N'*. The lever *C* will stand so that its longest arm will be nearly perpendicular, holding the following-block between *D* and *D*, and so that the entire top of the press will be open. The body of the press is now filled with hay. When it is full, power is applied to the rope *I*, either by means of the capstan or any other convenient way, so as to unwind it from the wheel *H*, upon which it has been so arranged that the smaller diameter will first unwind. As the rope comes off of *H* it winds the chain *G* upon *N'* and draws down the lever *C* to the position represented in the drawing. The following-block then leaves *D* and passes down between *D'* and *D'*, still drawn by the chain *G*, which is still gradually wound upon the sheave *N'*, as aforesaid. This continues until sufficient compression of the hay has been produced; the bale is then bound up. As the power upon the rope *I* is relaxed the weight *W*, drawing up the following-block, will unwind the chain *G* and wind up the rope *I*. In this way the following-block will gradually rise

until it arrives at *D*, when it strikes the spring *f* and releases the latch *m*. The lever *C* will then tilt upon the hinge *b*, carrying the following-block with it, until it stands almost perpendicular, and the whole top of the press is opened to be refilled. This process is repeated for each bale. The rope *I* may be operated by means of any convenient power; but I have found that a tapered capstan, such as is represented, surrounded by a helical groove, in which the rope winds, is the best, because, if it be properly tapered, it will guide the rope readily to all parts of the wheel *H*. By fixing this capstan with a convenient ratchet and spring-pawl it may be readily released from the sweep so as to relax the rope *I* at any time.

What I claim, and desire to secure by Letters Patent, is—

The arrangement of the spring *f*, the latch *m*, and the hinges *a* and *b*, in combination with the lever *C*, the rope *O*, the weight *W*, the following-block *F*, the hook *e*, the chain *G*, the helical sheaves *N'* and *N'*, and the involute wheel *H*, all constructed and operated substantially as set forth.

In testimony that I claim the foregoing as mine I have hereunto set my hand this 19th day of December, 1870.

Witnesses: PETER L. NEGLEY.

GEO. H. ZEIGLER.

G. F. SCHURMANN.

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