

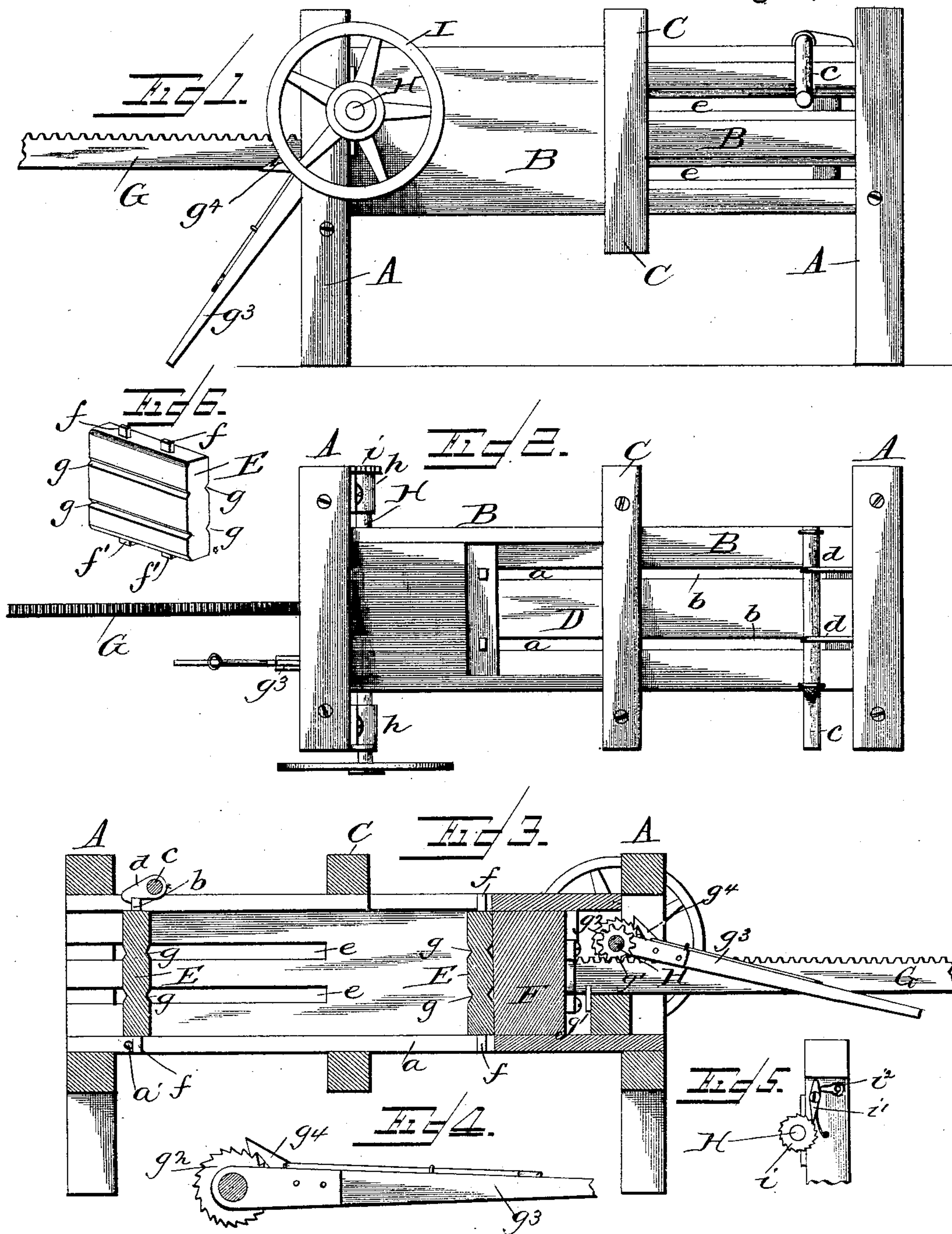
(No Model.)

W. H. CARSE, W. T. BLACKBURN & R. P. OWENS.

HAND HAY PRESS.

No. 480,382.

Patented Aug. 9, 1892.



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UNITED STATES PATENT OFFICE.

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ROGERS, ARKANSAS.

HAND HAY-PRESS.

SPECIFICATION forming part of Letters Patent No. 480,382, dated August 9, 1892.

Application filed March 17, 1892. Serial No. 425,243. (No model.)

To all whom it may concern:

Be it known that we, WILLIAM HARPER CARSE, WILLIAM T. BLACKBURN, and ROBERT P. OWENS, citizens of the United States, residing at Rogers, in the county of Benton and State of Arkansas, have invented certain new and useful Improvements in Hand Hay-Presses; and we do declare the following to be a full, clear, and exact description of the invention, such as will enable others skilled in the art to which it appertains to make and use the same, reference being had to the accompanying drawings, and to the letters of reference marked thereon, which form a part of this specification.

Our invention is a hand hay-press; and it consists in the novel construction and arrangement of its parts hereinafter set out in this specification and the claim hereto attached.

In the accompanying drawings, Figure 1 is a side elevation of our invention. Fig. 2 is a top plan view of the same. Fig. 3 is a vertical sectional view of Fig. 1, ends reversed. Figs. 4, 5, and 6 are detail views.

Our invention is described as follows:

A A represent the front and rear framework, in which is secured the box B.

C is a clamp for strengthening the box. The box is composed of four strong sides having just in front of the clamp C an opening, D to receive the hay. In the lower wall of the box are two parallel grooves *aa*, Fig. 2, which begin some distance in front of the clamp C and run to the rear end of the box. Near the rear ends of said grooves is a rod *a'*, Fig. 3, which crosses each one of said slots. In the upper wall of said box are two parallel slots *bb*, which run from the front edge of the clamp C to the rear end of said box. On the top of said box and near its rear end is pivoted a crank-axle *c*, to which are rigidly secured two catches *dd*, which work in the slots *bb*. In the sides of said box and running from the clamp C to the rear end of said box are two parallel grooves *ee*, Figs. 1 and 3.

E represents a follow-block. We use two or more of these blocks. Said block is provided on its upper edge with two pins *ff* and on its lower edge with similar pins *f'f'* and has in its sides horizontal grooves *gg*, which register with the side slots *ee* in said box,

while the upper pins run in the upper grooves *bb* and the lower pins run in the lower grooves *aa*. These blocks are called "follow-blocks," and are made to impinge against each side of the bale when it is being pressed. In the front end of the said box is a plunger F, to which is rigidly secured one end of a ratchet-beam G, the lower edge of which works in the rest and guide *g*.

An axle H, journaled in proper bearings *h*, secured to the front legs of the invention, has rigidly secured thereon a cog-wheel *g'*, the cogs of which mesh with the cogs of the ratchet-beam G. There is also rigidly secured to said axle a ratchet-wheel *g²*, and pivoted on said axle is a lever-arm *g³*, having a dog *g⁴*, which works in the teeth of said ratchet-wheel. To the right-hand end of said axle is secured a balance-wheel I. To the left-hand end of said axle is secured a small ratchet-wheel *i*, checked by a dog *i'*, and said dog is held out of contact with said ratchet-wheel when desired by a thumb-latch *i²*.

The operation of our machine is as follows: One of the follow-blocks E is placed in the box with its lower pins *f'f'* in the slots *aa*, and resting against the front side of the cross-rod *a'*, its upper pins *ff* in the slots *bb* and resting in the notches of the catches *dd*. Another follow-block E rests against the front face of the plunger F with its upper and lower pins in the upper and lower slots just described. The hay is put in the opening at D until the box is full. The plunger is driven forward by working the lever *g³*, each stroke driving the plunger forward, while it is held from returning by means of the ratchet-wheel *i* and dog *i'* when the said lever is raised to take a new hold. When the bale is pressed, the binding-wires are put through the side slots *ee* and run along the grooves *gg*, and thus the bale is encircled and the wires are tied. Then the handle of the crank-axle *c* is turned and the catches *dd* raised. This releases the front follow-block and its upper end falls forward and it is ready to be pushed out. Then a few more strokes on the lever drives the bale out and sends the rear follow-block forward until it occupies the position just occupied by the one ejected. The dog *i'* is thrown out of contact with the ratchet-

wheel *i*, the dog *g*⁴ raised out of contact with the ratchet-wheel *g*², and the plunger *F* is run back by reversing the motion of the wheel *I*. The ejected follow-block is then put in immediately in front of the plunger and the press is ready to press another bale.

Having described our invention, what we claim as new, and desire to secure by Letters Patent, is—

10 The combination of the frames *A A*, clamp *C*, box *B*, having the top opening *D*, bottom slots *a a*, top slots *b b*, and side slots *e e*, rod *a'*, passing across said bottom slots near their

rear ends, crank-axle *c*, having secured to it catches *d d*, working in the upper slots *b b*, 15 follow-blocks *E*, having the pins *f f' f'* and grooves *g g*, and plunger *F*, operated by mechanism substantially as shown and described.

In testimony whereof we affix our signatures in presence of two witnesses.

WILLIAM H. CARSE.

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ROBERT P. OWENS.

Witnesses:

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