(No Model.) 2 Sheets—Sheet 1.

G. C. McNEIL.

CHARGING BARROW.

No. 412,342. Patented Oct. 8, 1889.

Fig. 1

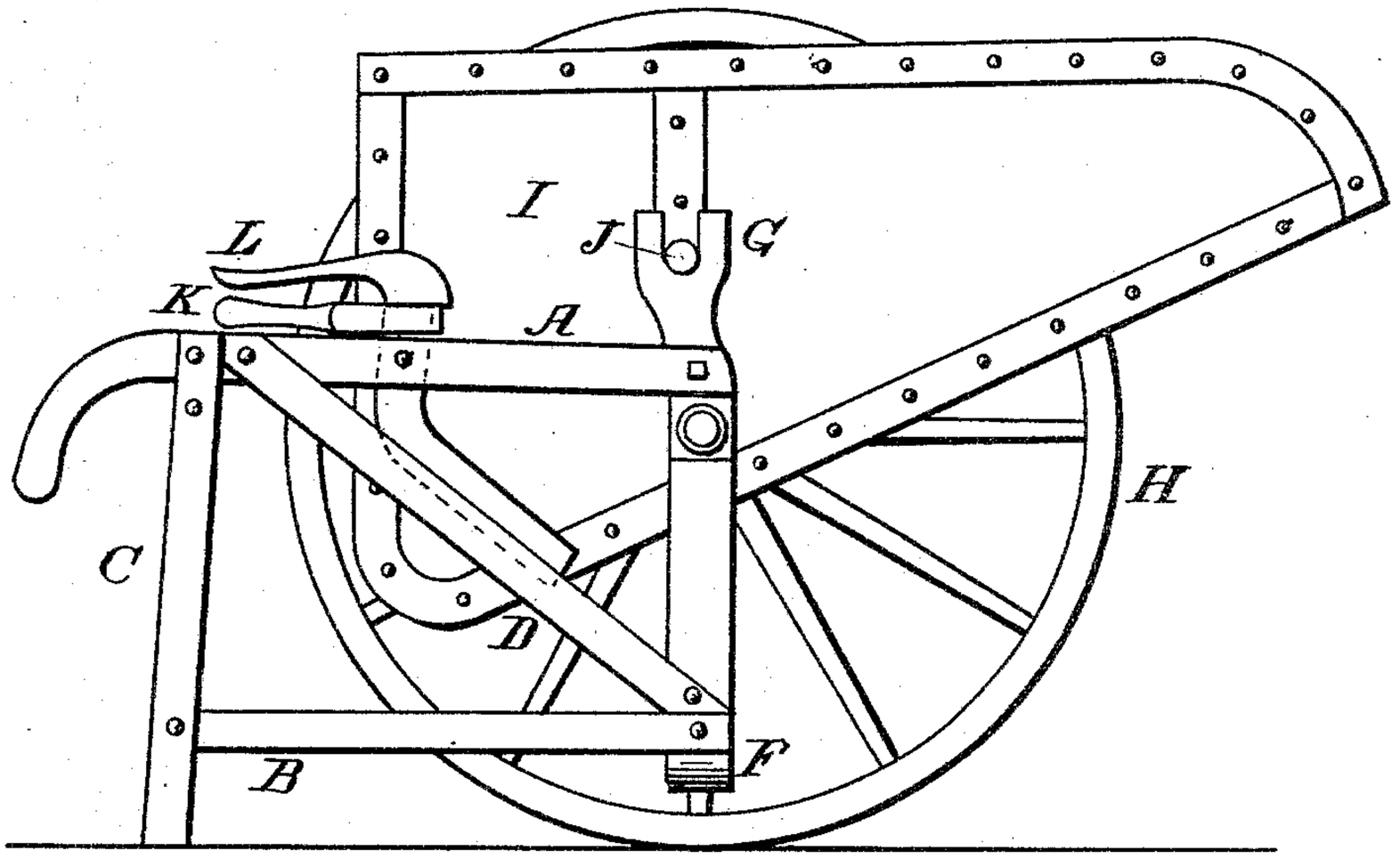
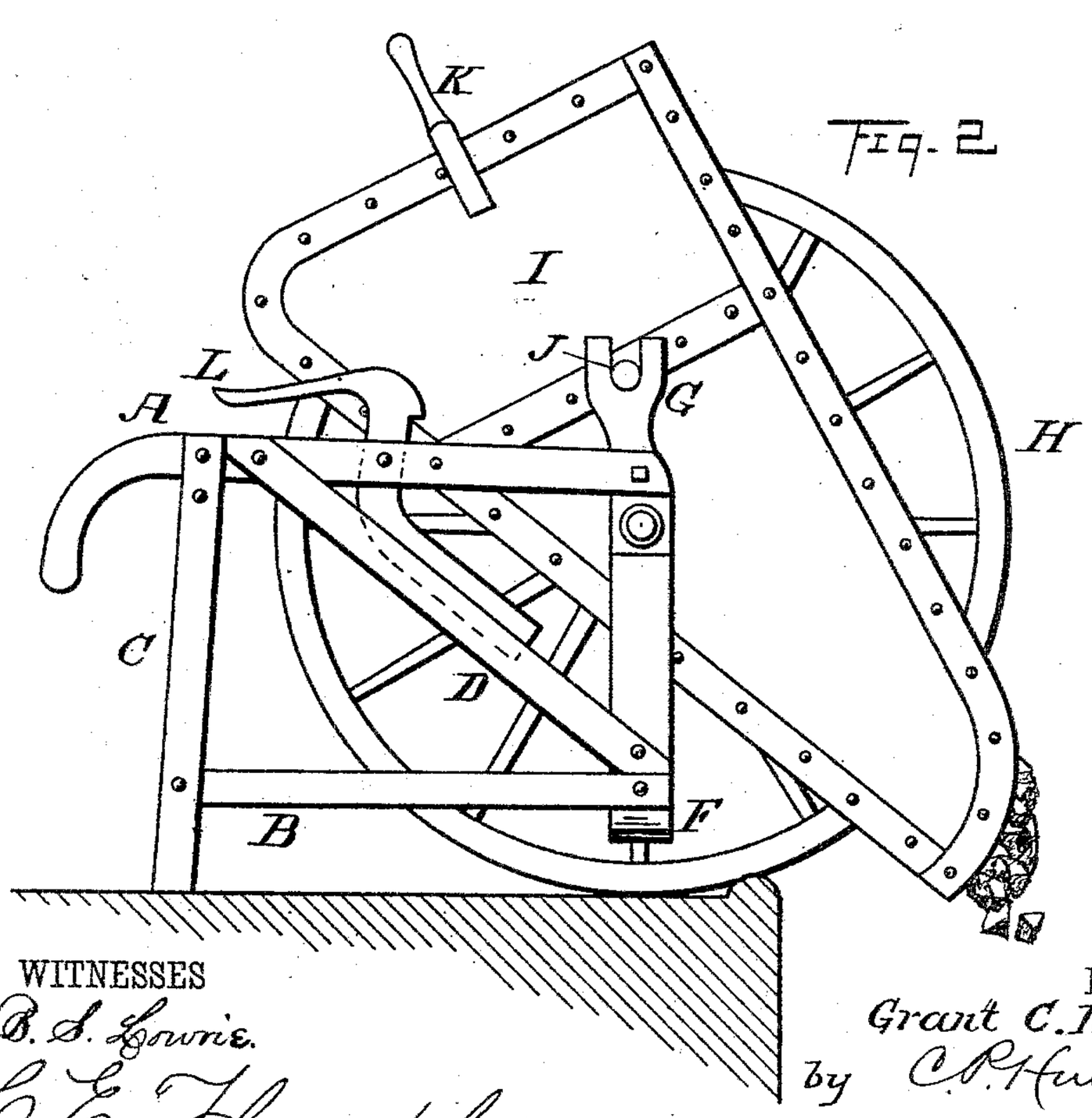


Fig. 2



WITNESSES
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C. C. Humphrey.

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(No Model.) 2 Sheets—Sheet 2.

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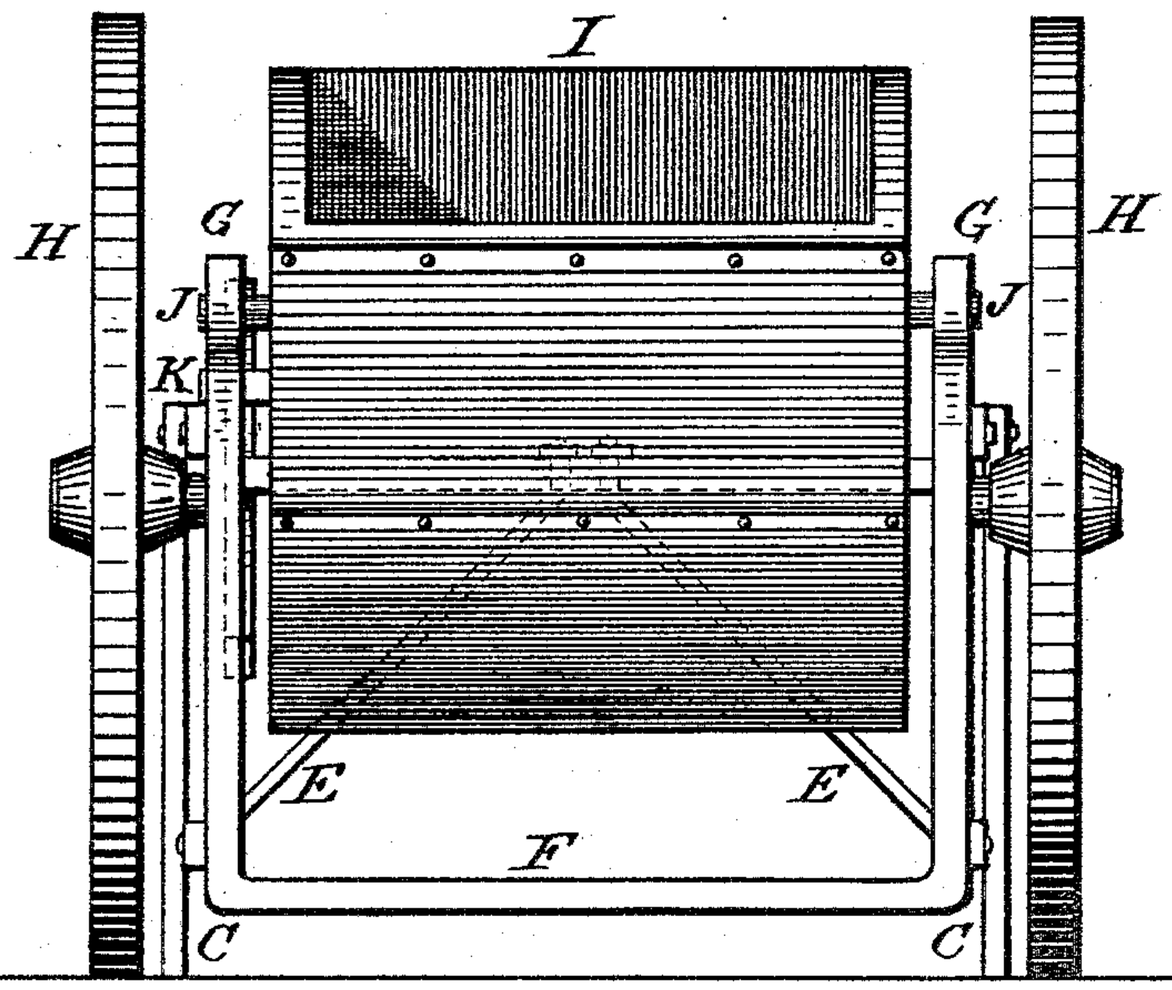
Fig. 3



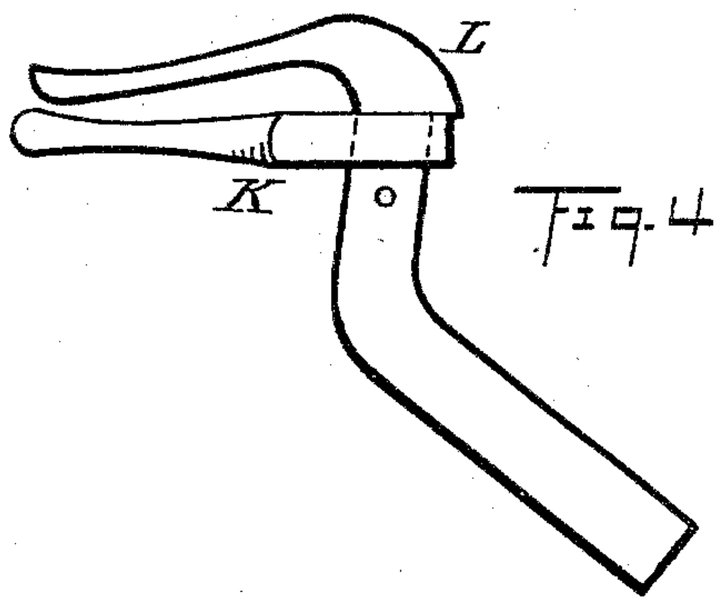


Fig. 4

WITNESSES

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UNITED STATES PATENT OFFICE.

GRANT C. MCNEIL, OF AKRON, OHIO.

CHARGING-BARROW.

SPECIFICATION forming part of Letters Patent No. 412,342, dated October 8, 1889.

Application filed August 17, 1889. Serial No. 321,123. (No model.)

To all whom it may concern:

Be it known that I, GRANT C. MCNEIL, a citizen of the United States, residing at Akron, in the county of Summit and State of Ohio, have invented a certain new and useful Improvement in Charging-Barrows, of which the following is a specification.

My invention has relation to improvements in barrows for charging furnaces and for similar purposes; and the objects of my invention are to produce a barrow of novel and peculiar construction, which shall automatically discharge its load and regain its position, shall be easily manipulated, shall be stable while in motion, and whose center of gravity shall be nearer the axle of the wheels than the barrows in common use.

To these objects my invention consists in the peculiar and novel construction and arrangement of parts, hereinafter described, and then specifically pointed out in the claims, reference being had to the accompanying drawings, forming a part of this specification.

In the accompanying drawings, in which similar letters of reference indicate like parts, Figure 1 is a side elevation of my improved barrow with the box upright, the near wheel being omitted to avoid confusion of lines; Fig. 2, a similar view with the box in the act of discharging its load; Fig. 3, a front elevation, and Fig. 4 an enlarged elevation, of the retaining-latch.

The entire barrow is of iron, the frame of which consists of two side pieces, each composed of upper and lower parallel bars A B, the upper terminating at the rear in a handle, the two bars being united at the rear by an upright bar C, which projects below the lower bar B to constitute a foot for the frame, and being also united by the diagonal bar D, all parts being securely fastened by rivets. These side pieces are secured together by a cross-bar between the upper ends of the bars C, (indicated by dotted lines in Fig. 3, but not lettered,) and are strengthened by braces E E, which pass from the center of the cross-bar to the rear ends of the bars B.

The axle F is bent to form three sides of a rectangle, the central portion extending horizontally between the side pieces and lower than the bar B, and the ends, rising vertically contiguous to the inner faces of the bars A B D, to which they are securely riveted, terminate above the bars A in forked journal-bearings G.

The wheels H are mounted on short axles or journals that are securely attached to and project from the outside of the vertical portions of the axle.

The box I is in side configuration a right-angled triangle, the hypotenuse being below, the lower and front angles being rounded, and is of heavy sheet-iron bound with bar-iron. From each side of the box extend journals or wrists J, which rest in the bearings G. These journals are so placed that when the box is empty the rear part overbalances the front and it assumes the position shown in Fig. 1, but when loaded the center of gravity changes and the front would swing down in the position shown in Fig. 2, unless prevented. To prevent the box thus swinging down and discharging its load, unless desired, there is attached to one side of the box a catch K, consisting of a short bar, which projects a short distance laterally from the box and is then bent backward, terminating in a handle. Pivoted to the bar A is a latch L, having a projecting lip, and with its upper end bent backward forming a thumb-piece, and with its lower end bent to lie parallel with the bar D, and of such size as to overbalance the upper part and swing it forward. The latch L is so located that the catch K will engage it as the box swings to place, and push the upper part back until the lip is passed, when, actuated by the weight of the lower end, it swings forward and holds the box down.

In operation, the box being filled, the barrow is moved to the desired position and the latch L drawn back, when the released box swings forward, discharges its load, and automatically returns to place. By this construction larger wheels can be used than those commonly employed, thereby rendering the traction easier. The box is placed nearer the ground, rendering the labor of filling less, and by placing the center of gravity of the box close to the wheel-axles greater stability and greater ease of handling are secured.

It will be obvious that the forked bearings G may be separate from the axles without de-

parting from my invention; but such construction is not advised.

I claim as my invention—

1. In a charging-barrow, the combination, with a frame having wheels journaled on axles projecting from its sides and provided with journal-bearings located below the plane of the top of the wheels to support the box, of a box mounted in said frame between said wheels by means of journals projecting from its side and resting in said bearings, substantially as shown, and for the purpose specified.

2. In a charging-barrow, the combination of a frame consisting of two side pieces united at the rear by a cross-bar and at the front by an axle, the axle being bent to form three sides of a rectangle, the central part being horizontal and placed near the bottom of the side pieces, and the ends rising vertically and terminating in journal-bearings and having journals projecting from their sides and having wheels mounted thereon, with a box having side journals resting in said journal-bearings, substantially as shown, and for the purpose specified.

3. In a charging-barrow, the combination, with a hand-frame having side journals with wheels mounted thereon, and journal-bearings for the box located below the plane of the top of the wheels, of a box suspended between said wheels by means of side journals which rest in said bearings, the rear of said box when empty overbalancing the front, substantially as shown and described, and for the purpose specified.

4. In a charging-barrow, the combination, with a supporting-frame having wheels mounted on axles projecting from its sides, and journal-bearings to support the box located below the plane of the top of the wheels, of a box mounted thereon between said wheels by means of side journals resting in said bearings, and a movable latch to retain and release said box, substantially as shown and described.

In testimony that I claim the above I hereunto set my hand.

GRANT C. McNEIL.

In presence of—
C. P. HUMPHREY,
C. E. HUMPHREY.