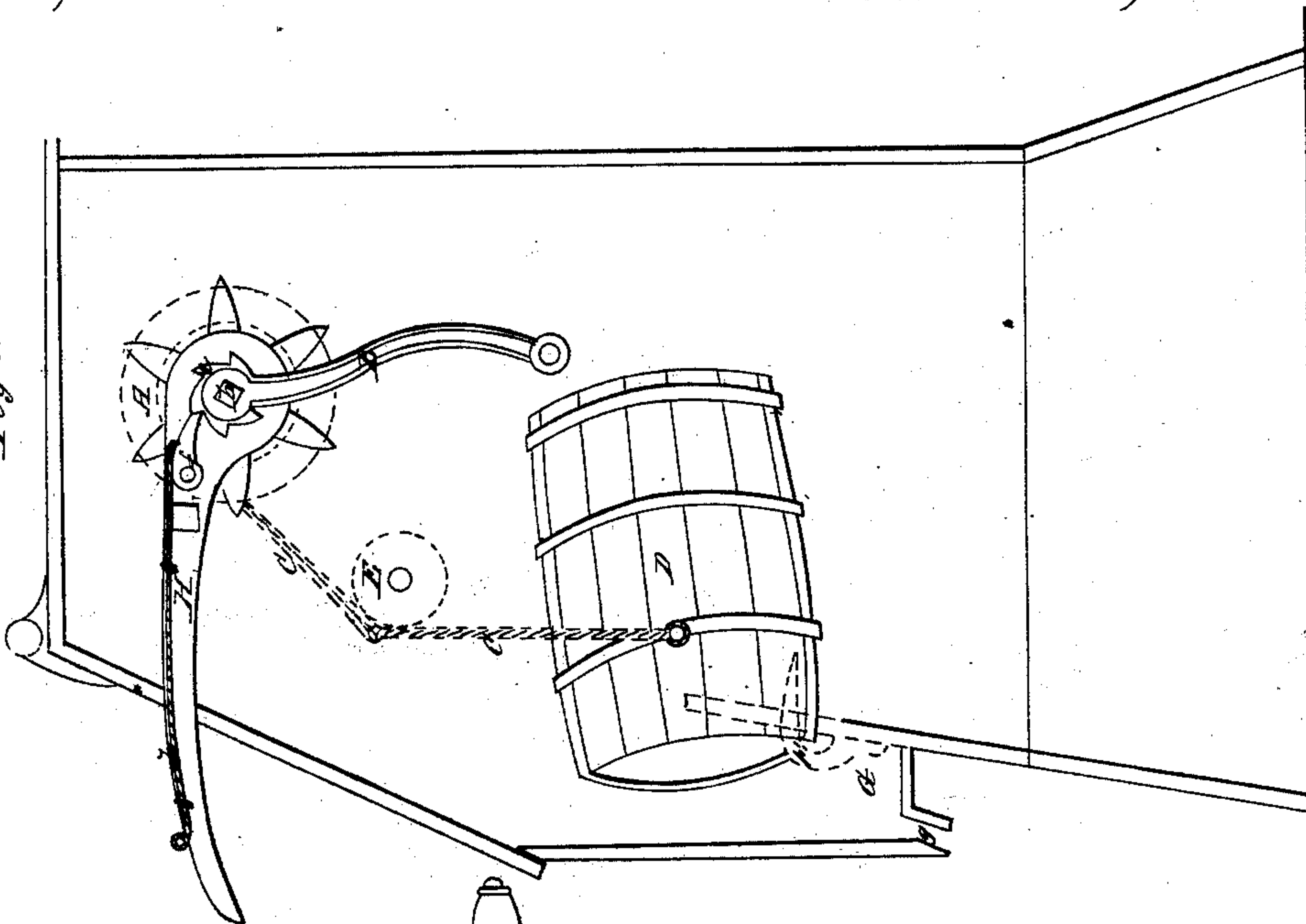


*S. & A. Aldrich,*  
*Windlass Water Elevator.*

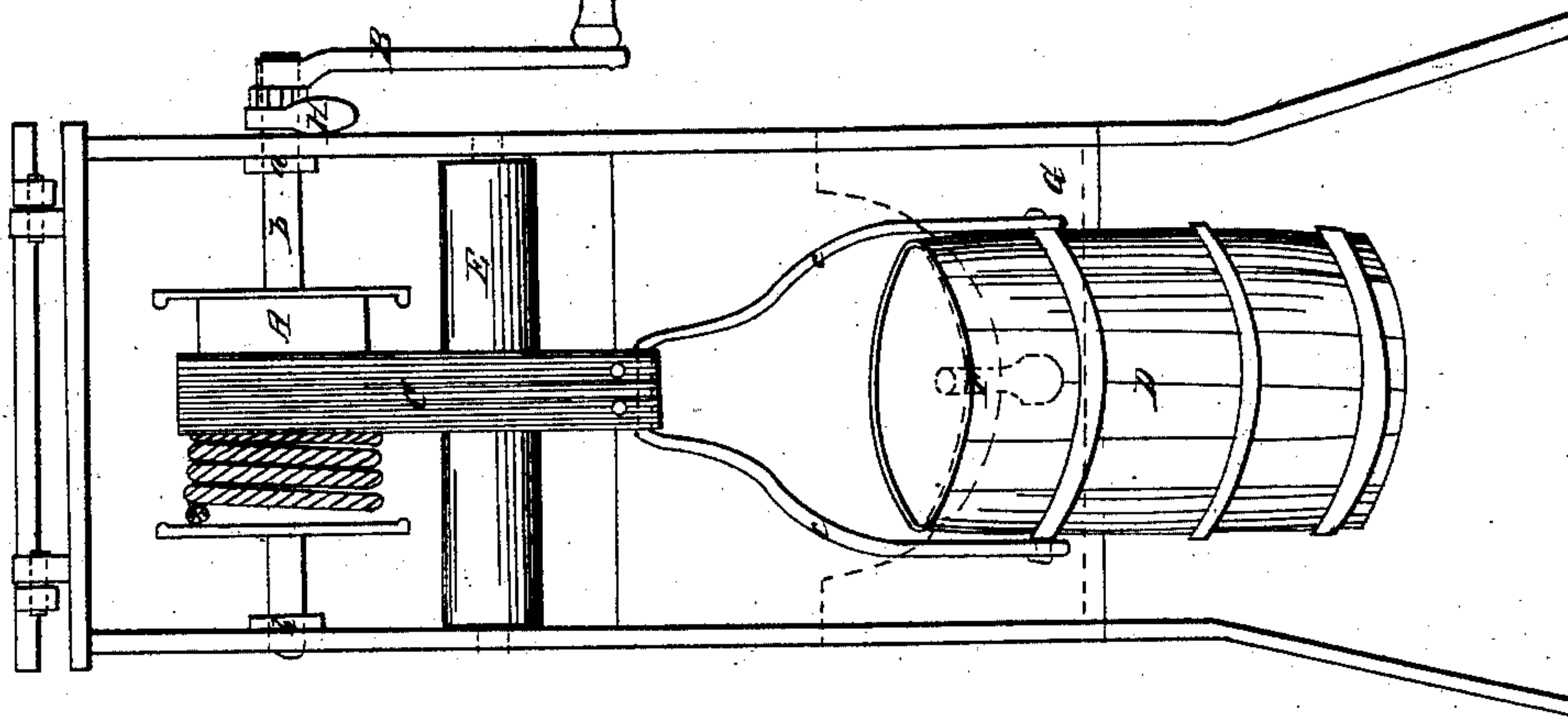
*N<sup>o</sup> 30449.*

*Patented Oct. 23, 1860.*

*Fig. 2.*



*Fig. 1.*



*Witnesses.*

*Edm<sup>d</sup> F. Brown*

*J. B. Woodruff*

*Inventor.*

*Samuel Aldrich*

*Alexander Aldrich*



# UNITED STATES PATENT OFFICE.

SAML. ALDRICH AND A. ALDRICH, OF WASHINGTON, DISTRICT OF COLUMBIA.

## DEVICE FOR ELEVATING WATER FROM WELLS, &c.

Specification of Letters Patent No. 30,449, dated October 23, 1860.

*To all whom it may concern:*

Be it known that we, SAMUEL ALDRICH and ALEXANDER ALDRICH, both of the city of Washington, in the District of Columbia, have invented new and useful Improvements in Metallic Well-Curbs and Machinery for Drawing and Discharging Water, and the following is a clear and exact description of the same, reference being had to the accompanying drawings, making a part of this specification, in which—

Figure 1, shows an edge view with the lid opened revealing the windlass and guiding roller, and the bucket and discharging arrangement in dotted lines. Fig. 2 shows a side elevation of the curb, ratchet crank handle and brake on the face; and the internal mechanism in dotted lines.

Our invention consists in the arrangement and combination of the brake-lever, pawl and ratchet, for the special protection of the mechanism, which will hereafter be fully specified.

To enable others skilled in the art, to make and use our improvements, we will describe it in detail referring to the drawings and the letters marked thereon.

We make the entire curb, or guard, of plates, of metal, of sufficient height to have the windlass (A,) and crank (B) convenient for a person to operate easily, and of width and thickness to admit of a convenient sized bucket to pass up and down, and tip up freely, to discharge the water. The base or bottom of the curb, is made flaring outward sufficient to cover the opening of an ordinary sized well, and serves the purpose of bracing and keeping it firmly in its place. The plates of which the entire curb is made, may be of sheet iron of suitable thickness, riveted together, or they may be cast with small ears, and put together with bolts or rods like stove plates. They may also be made plain or ornamental, close or open work. An inclined lid is hinged to the top, for the purpose of opening, to come at the internal arrangements, as shown in Fig. 1. The sides of the curb, form the journal boxes (a, a,) for the shaft (b,) to the windlass (A,) to which is attached a rope of sufficient length, on the end of which is secured a piece of india rubber band, or belting (C,)

to which the bail (c,) of the bucket (D,) is suspended. The rope and belt passing from the windlass over a roller (E,) by which it is guided and brought to a position to catch under the hook (F,) and by the continued elevation of the bucket, the water will be accurately discharged into the tank (G,) and pass off at the spout or opening (g).

On the outside of the curb, is a brake lever (H,) having a hole through the fulcrum end, and through which the windlass shaft (b) passes to the crank (B,) which is provided with a ratchet wheel (e,) being cast on it, into which a pawl (f,) is pivoted to the brake-lever, and is made to hold on, or let go, by the action of the sliding rod (h), which extends along the brake-lever (H,) by which arrangement the whole mechanism is perfectly protected from injury by the descent of the bucket into the well.

Cast iron for well curbs, has many and great advantages over wood, and particularly so, for the construction and arrangement of our plan, as above specified. In the first place, the bottom being flaring, to cover the top of the well, it forms a substantial base to keep it in its place while the upright part can be contracted not requiring more room than to allow the bucket free play to discharge its contents. It also forms a substantial frame, and boxes, for the arbors of the windlass and guide roller, as well as the brake lever. It will not become warped and twisted by being frequently wet and dried, nor is it exposed to rot or decay from the effects of the vapors arising from the well—and lastly it can be made cheaper and more ornamental and is a permanent thing.

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

The arrangement of the brake-lever (H,) with the sliding rod (h,) and movable pawl (f,) attached in combination with the ratchet crank-handle (B) for the purposes herein set forth.

SAMUEL ALDRICH.

ALEXANDER ALDRICH.

Witnesses:

EDW. F. BROWN,

J. B. WOODRUFF.