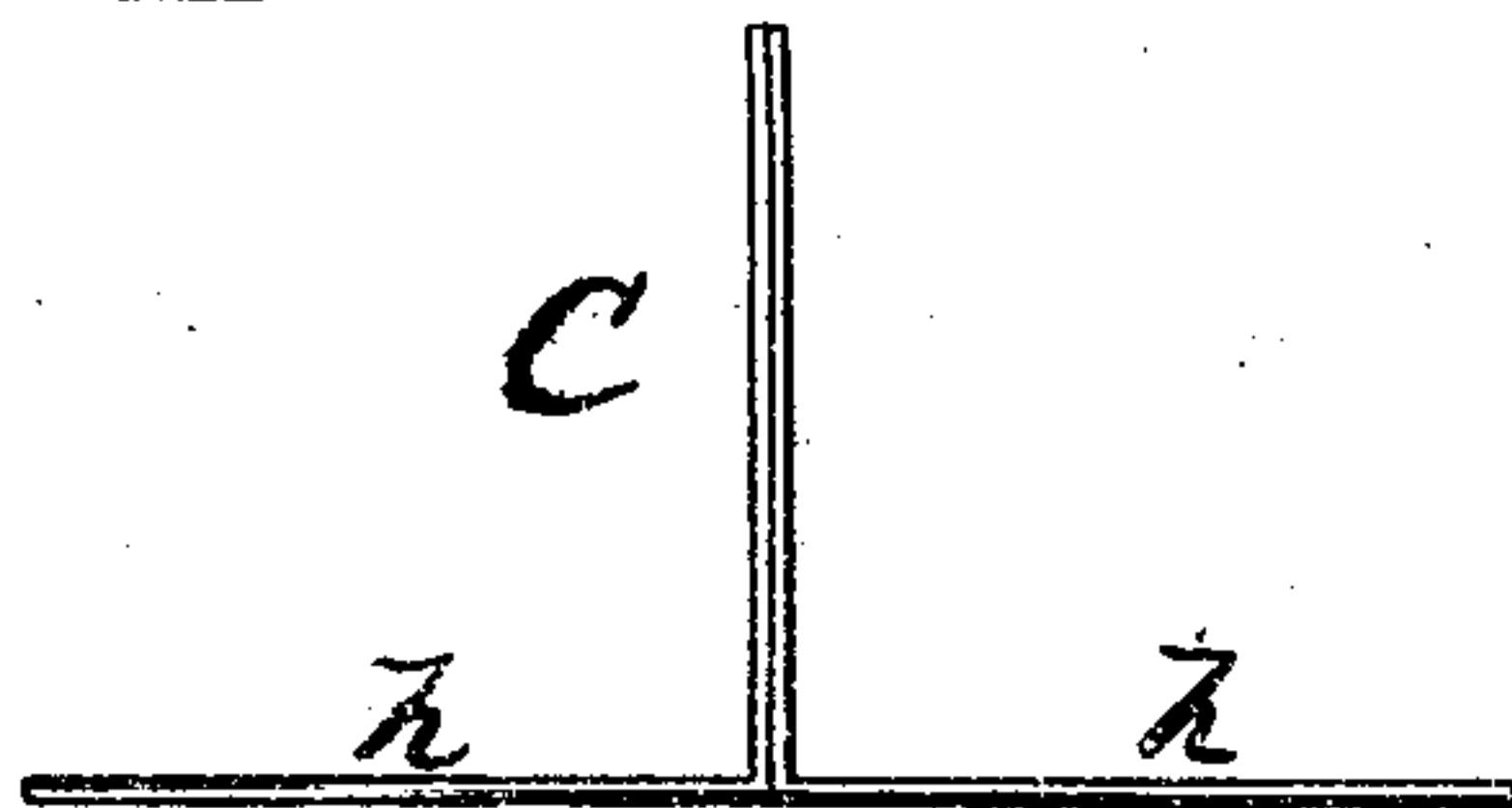
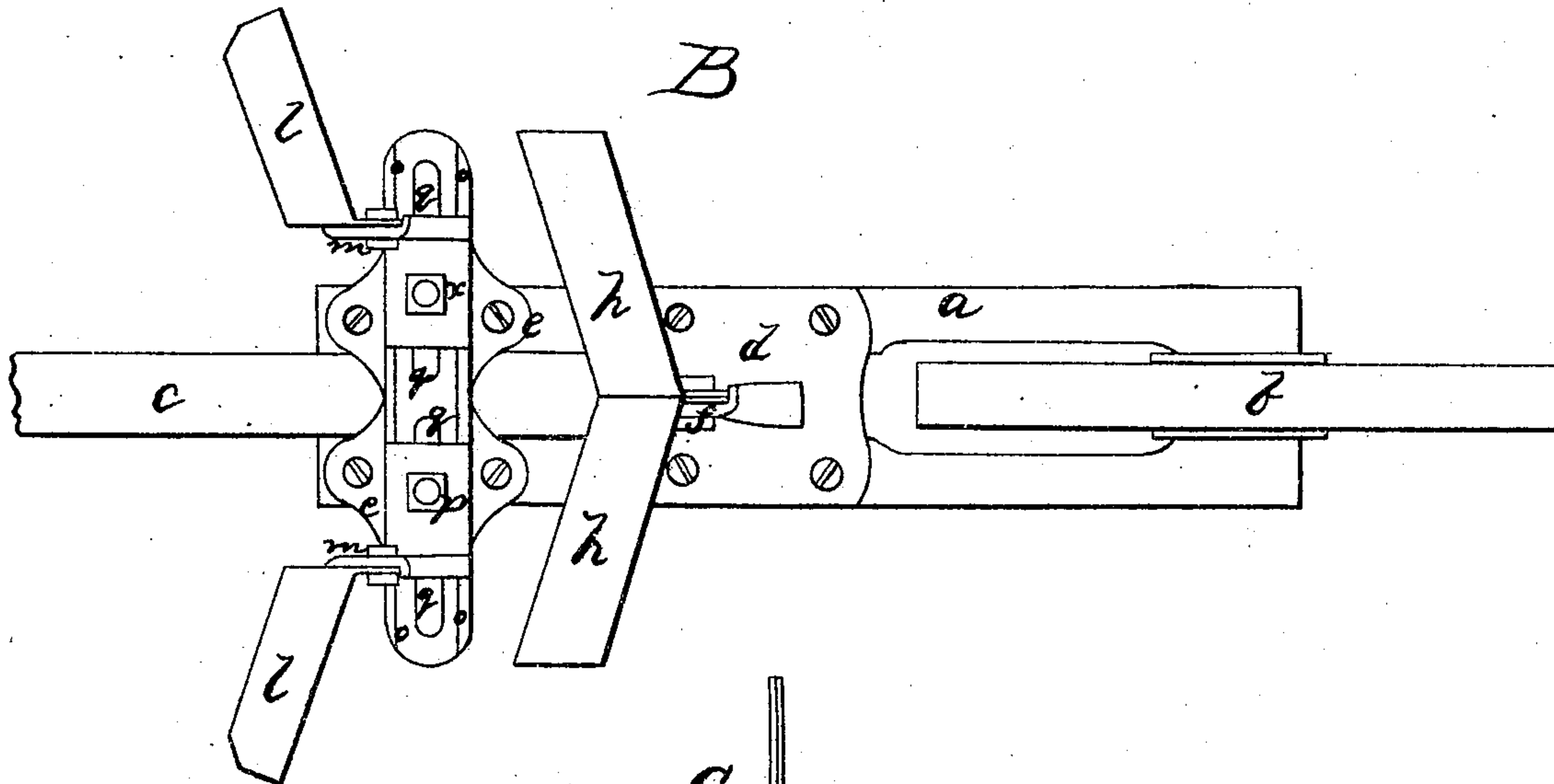
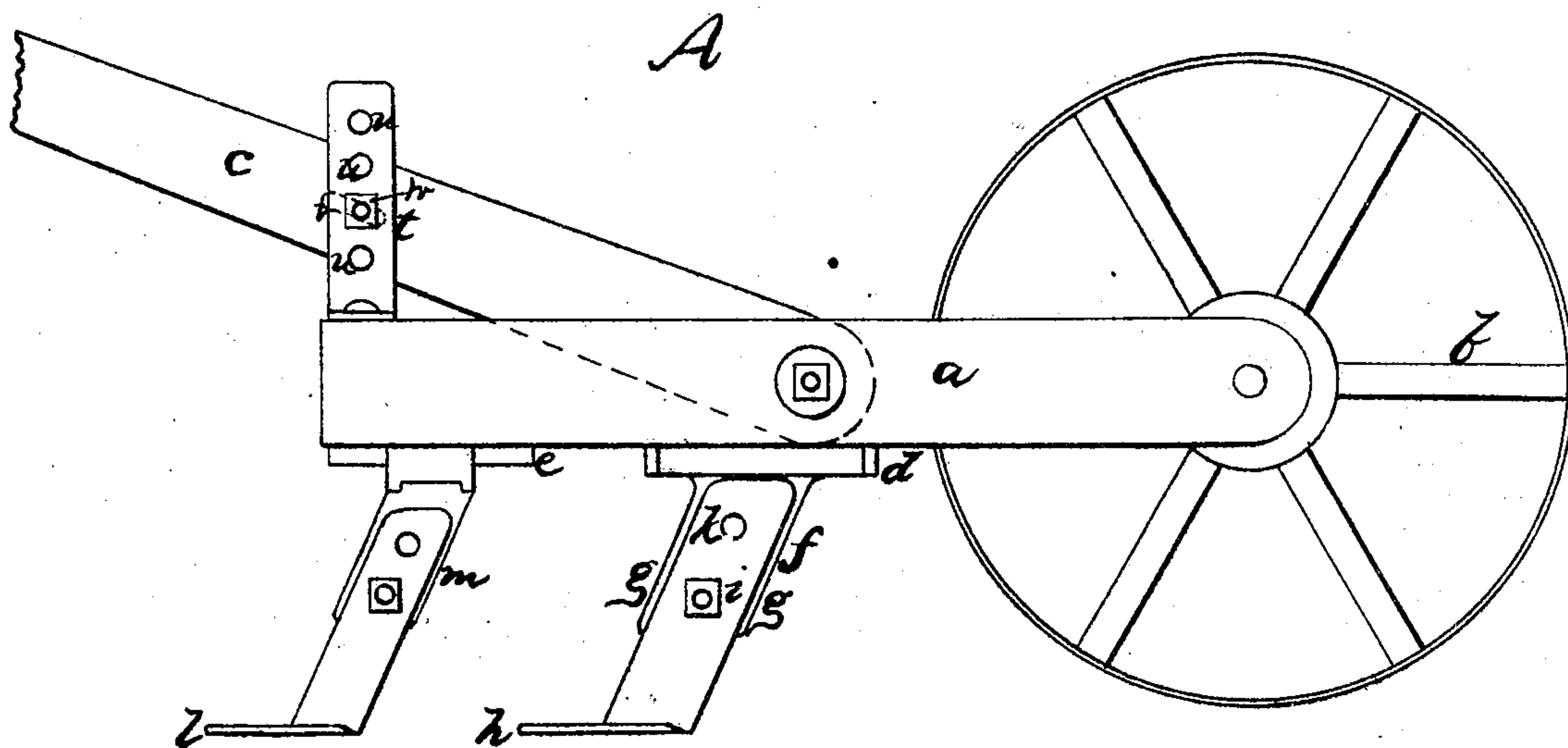


E. D. & O. B. Reynolds.

Wheel-Hoe.

N^o 75460

Patented Mar. 10, 1868.



Witnesses.

J. B. Kidder,
M. W. Frothingham.

Inventors. E. D. & O. B. Reynolds
by Crosby Halsted & Gould.
His Atty.

United States Patent Office.

EDMUND D. REYNOLDS AND O. BRADFORD REYNOLDS, OF NORTH BRIDGEWATER, MASSACHUSETTS.

Letters Patent No. 75,460, dated March 10, 1868.

IMPROVEMENT IN WHEEL-HOES.

The Schedule referred to in these Letters Patent and making part of the same.

TO ALL WHOM IT MAY CONCERN:

Be it known that we, EDMUND D. REYNOLDS and O. BRADFORD REYNOLDS, both of North Bridgewater, in the county of Plymouth, and State of Massachusetts, have invented certain new and useful Improvements in Wheel-Hoes; and we do hereby declare that the following, taken in connection with the drawings which accompany and form part of this specification, is a description of our invention sufficient to enable those skilled in the art to practise it.

Our invention relates particularly to the construction of that class of wheel-hoes, in which a gang of hoes is supported by a carriage or frame, having a leading and supporting barrow-wheel, the machine being propelled by hand.

The invention consists in the means employed for adjusting the hoes laterally, and as to height, and in the construction or formation of the hoe-blades with reference to their standards.

The drawings represent a wheel-hoe embodying our improvements. A shows a side elevation of the hoe; B, a reversed plan; C, a front view of the centre or forward hoe-blades.

a denotes the frame, supported at its front end on the axle of the wheel *b*, and having at its rear end a handle, *c*, by which the hoe is pushed forward. On the under side of the frame *a* are fixed strong metal plates, *d e*, the front one of which, *d*, has a downward extension or support, *f*, provided with side-lips, *g*, between which the standard of the two front hoe-blades, *h*, slides, and by which they are supported, a screw-bolt and nut, *i*, fastening the standard to the support *f*. The standard is provided with two or more bolt-holes, *k*, by means of which the hoes *h* are adjusted as to height, the standard sliding up or down between the lips *g*, to bring either hole *k* into line with the hole in the support *f*, the lips firmly supporting or steadying the standard in either position. The standard of each rear hoe, *l*, is similarly secured between lips in a support-piece, *m*, between which lips it is similarly made vertically adjustable. Each support *m* is bolted to the plate *e*, fixed on the bottom of the frame *a*, this plate having guide-lips or ways, *o*, between which each support is fixed by a bolt and nut, *p*, (and may slide when the nut is loosened,) the plate having slots, *q*, through which the bolts may be moved laterally, to adjust the hoes *l* in position towards or from the centre of the machine.

Each hoe-blade, with its standard, is made from one long steel plate, bent at such an angle as shall not only give the blade a horizontal position, and the standard a vertical position, but which shall also set the blade at the proper inclination in a horizontal plane, (as seen at B,) for the blade to operate to best advantage. In the front hoes, *h*, the standards of the two blades are welded together, so as to form one standard, this method of connecting the standards, stiffening the blades and sustaining them in position, without the use of bolts or similar devices to connect the standards or hoes together.

To accommodate the machine to use by persons of varying height, the handle *c* is hung to the frame on a pivot-bolt, *s*, and passes between uprights, *t*, having series of holes, *u*, through any opposite two of which (and through a slot, *v*, in the handle,) a bolt, *w*, passes, by which means the outer end of the handle is adjusted in height, as will be readily understood. These details of construction enable the hoe to be very strongly made, while having provisions for all such adjustments as may be necessary or desirable in an implement of this description.

1. We claim, in combination with the centre blades *h*, (made vertically adjustable,) the rear blades *l*, made adjustable, both vertically and laterally, substantially as shown and described.

2. We also claim supporting the vertically-adjustable standards between guide-lips *g*, substantially as described.

3. We also claim, in combination with the plate to which the blades *l* are secured, the laterally-sliding supports *m*, substantially as described.

4. We also claim forming each hoe-blade and its standard from a plate, bent both at right angles and with an inclination rearward, substantially as shown and described.

5. We also claim forming the standard of the two forward blades, by welding together the two vertical plates, substantially as described.

6. We also claim, in a hoe in which the blades are made adjustable, as described, applying the handle with provision for vertical adjustment, substantially as set forth.

EDMUND D. REYNOLDS,
O. BRADFORD REYNOLDS.

Witnesses:

JONA. WHITE,
AARON S. HARLOW.