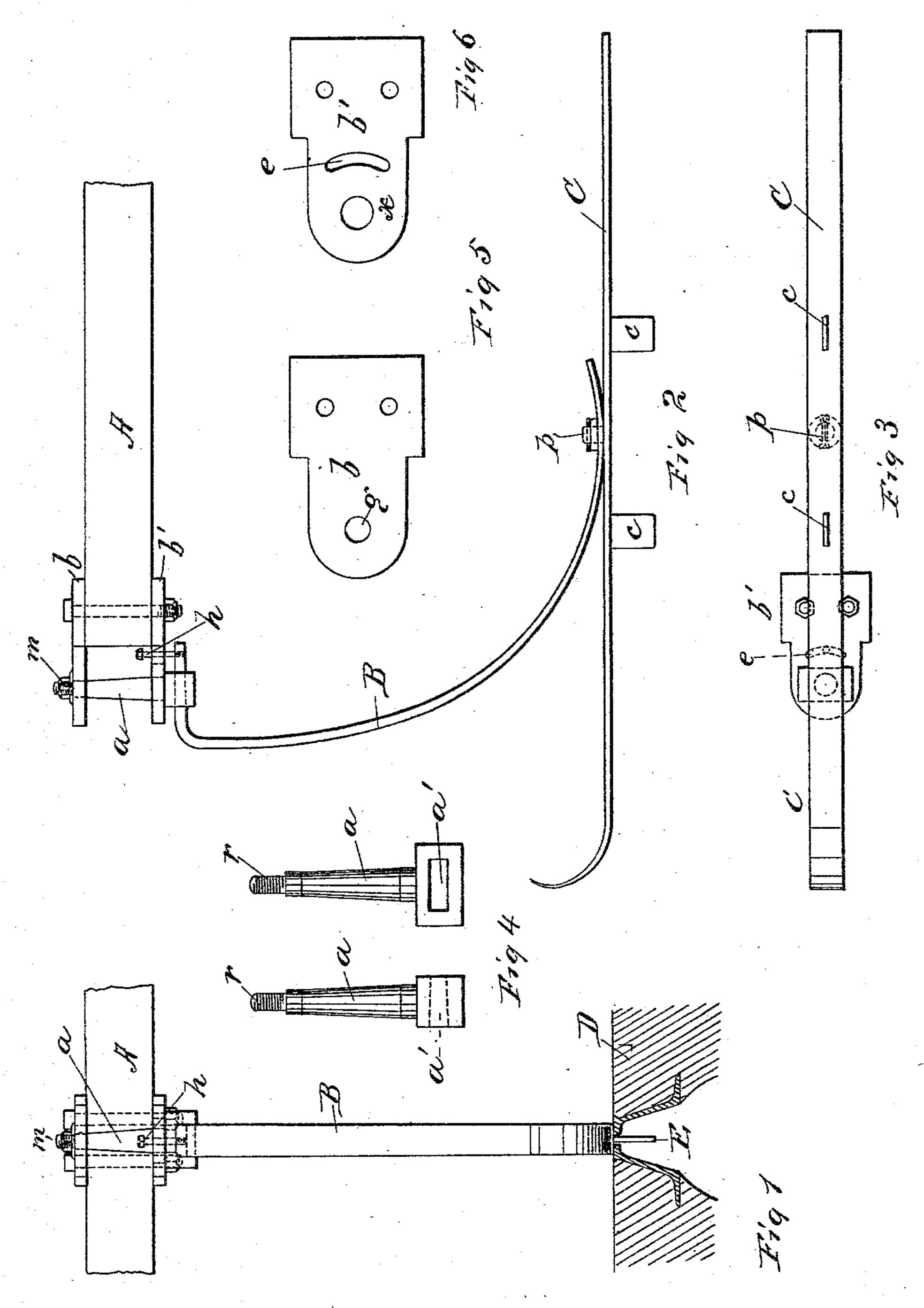
## M. OHLSON.

## MACHINE TO PROTECT CABLE ROAD SLOTS.

No. 296,870.

Patented Apr. 15, 1884.



Witnesses Mbborlies HHRead

Inventor Magnus Ohlson

By Buskunghun Rodenan A77-orneys

## United States Patent Office.

MAGNUS OHLSON, OF CHICAGO, ILLINOIS.

## MACHINE TO PROTECT CABLE-ROAD SLOTS.

SPECIFICATION forming part of Letters Patent No. 296,870, dated April 15, 1884.

Application filed October 22, 1883. (No model.)

To all whom it may concern:

Be it known that I, Magnus Ohlson, residing at Chicago, in the county of Cook and State of Illinois, and a citizen of the United 5 States, have invented a new and useful Machine to Protect Cable-Road Slots, of which the following is a full description, reference being had to the accompanying drawings.

My invention relates to a new and useful machine to protect cable-road slots while being cleared of snow, dust, or other matter. The object of my improvement is to provide a shield or cover to be attached to a snow-plow or street-sweeper to prevent snow, dust, or other substances from lodging in the slot in the road-bed through which connection is had with the cable used to propel the cars, or falling through the same into the tunnel in which the cable runs during the cleaning of the track. I attain this object by the mechanism illustrated in the accompanying drawings, in which—

Figures 1, 2, and 3 represent, respectively, a front, side, and top view of my machine, while Figs. 4, 5, and 6 represent, respectively, side and top views of the pivot-bolts and plates used therein.

Similar letters refer to similar parts throughout the several views.

A represents substantially the front end of a snow-plow or street-sweeper, on the upper and lower sides of which are attached, respectively, the plates b b'. The plate b is of the form shown in the drawings, and is pro-35 vided with the hole g. The plate b' is of the same form, and is provided with the hole x, which is slightly larger than the hole g in the other plate, also with the curved slot e. Through the holes x g of the plates b' b is 40 passed the taper pivot-bolt a, secured at its upper end by the cap-nut m, to enable it to turn freely within the said hole. The taper pivot-bolt a is provided with the slot a' at its lower end, and the thread r at its upper end, 45 for the reception of the cap-nut m. In the slot a' is inserted and firmly held the upper end of the spring B. The pin h, of a size to permit of a free lateral movement in the curved slot e, is passed through the said slot e and 50 fastened perpendicularly to the upper end of the spring B. The said spring B, bent to the shape substantially as shown in the drawings,

has attached to its lower end, by means of the bolt and pin p, to enable it to turn freely, the shoe or shield C, which is turned up at 55 its forward end to the form indicated in the drawings, and provided with the guide-lugs c c. The shoe or shield c is of sufficient width to amply cover the slot in the road-bed, and long enough to pass under the working parts 60 of a snow-plow or street-sweeper when in operation, and thus act as a shield or cover to the said slot.

The use of the bolts a and p and of the pin h and curved slot e admits of a lateral move- 65 ment of the front end of the snow-plow or street-sweeper while rounding curves without disturbing the shoe or shield in the slot, and the use of the spring B enables them to pass over minor obstructions which may be 70 encountered, or the inequalities of the track, without throwing the shoe or shield from the slot.

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

1. In a machine to protect cable-road slots, the combination of the spring B and the shoe C and means of attaching same to the plow, substantially as described, and for the purposes set forth.

2. In a machine to protect cable-road slots, the combination of the spring B and the shoe C, provided with the lugs cc, and means of attaching the same to the plow, substantially as described, and for the purposes set forth. 85

3. In a machine to protect cable-road slots, in combination with the substantially-described plates b b', the bolt a, spring B, and shoe C, provided with the lugs c c, substantially as described, and for the purposes set 90 forth.

4. In a machine to protect cable-road slots, in combination with the plates b b', provided with the holes g x and slot e, the spring B, provided with the pin h, and the pivot-bolt a, 95 provided with the slot a', and the shoe C, provided with the lugs e c, and bolt and pin p, substantially as described, and for the purposes set forth.

M. OHLSON.

Witnesses:

WM. BUCKINGHAM, T. J. RODMAN.