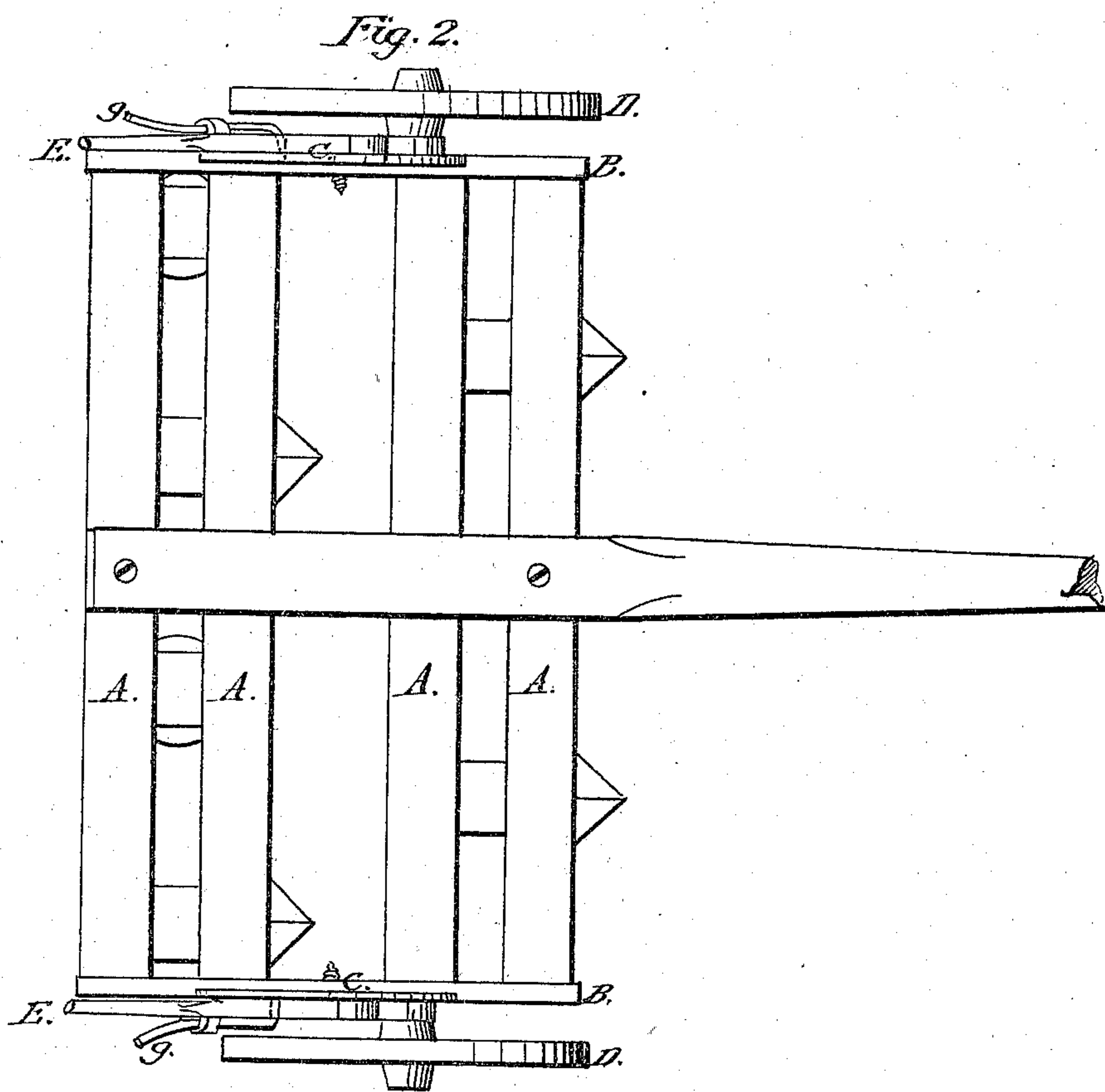
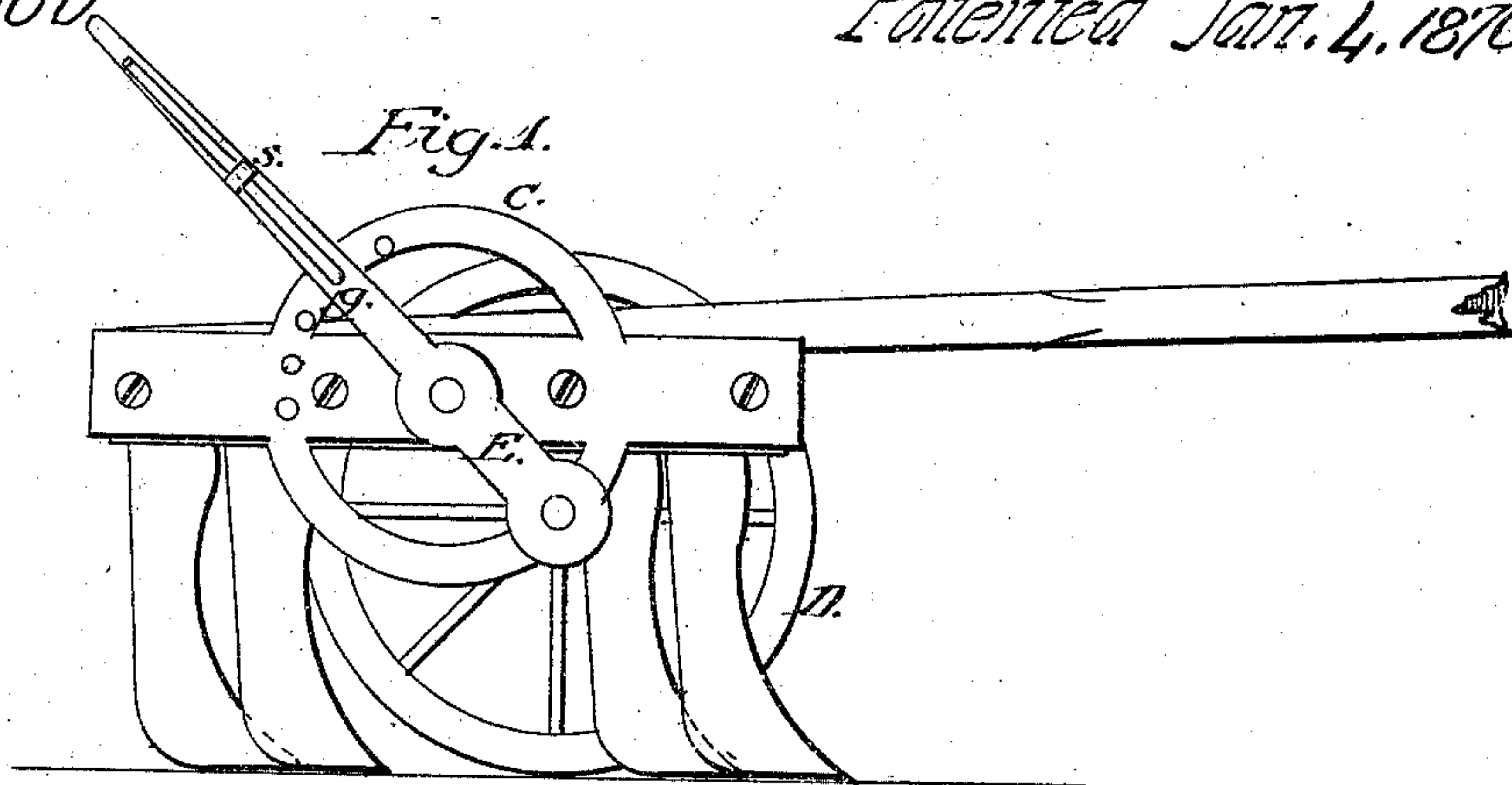


A. L. Chubb,
Wheel Cultivator,

No. 28,560

Patented Jan. 4, 1870.



Witnesses:
J. W. Master
J. V. White

Inventor:
A. L. Chubb
by J. W. Alexander
att.

UNITED STATES PATENT OFFICE.

A. L. CHUBB, OF GRAND RAPIDS, MICHIGAN.

IMPROVEMENT IN CULTIVATORS.

Specification forming part of Letters Patent No. 98,560, dated January 4, 1870.

To all whom it may concern:

Be it known that I, A. L. CHUBB, of Grand Rapids, in the county of Kent and State of Michigan, have invented certain new and useful Improvements in Cultivators; and I do hereby declare that the following is a full, clear, and exact description thereof, reference being had to the accompanying drawings, and to the letters of reference marked thereon, which form a part of this specification, in which—

Figure 1 represents a side elevation of my cultivator, and Fig. 2 a plan view of the same.

The nature of this invention consists in casting the side pieces with receptacles for receiving the cross-beams of the cultivator, and in combination with such devices, as will be hereinafter set forth.

To enable others skilled in the art to make and employ my invention, I will now describe its construction and operation.

The frame of my cultivator consists of the four beams A and the side bars, B B. The said end or side bars are cast in one piece with the wheel-like devices C C, and said pieces or bars are furnished with receptacles on their inner sides large enough to receive the entire end of each of the beams A A. The ends of said beams are secured in place by screw-bolts. This mode of fastening the beams adds greatly to their strength and solidity.

To the beams A A are attached the common shovels used in cultivators, each shovel having a lateral projection of sufficient length to reach the width of two of the beams A A, to which said projections will be fastened by screw-bolts.

D D designate the wheels, which revolve on axles, the inner ends of which are secured to the levers E E. (See Fig. 1.) The levers E E are confined to bars B B by bolts, which act as fulcrum upon which said levers can play backward or forward.

On the outer side of each of the levers are the projections s s, with holes through them to receive the rods g g, the said rods being made to pass inward through openings in levers E E, and then enter any one of the several perforations in the wheel-like devices C C. The upper ends of said rods are bent a little outward, and rest on rubber springs t t, placed on the levers E E.

The operation of my machine is as follows: When it is desired to raise or lower the wheels D D, which are pivoted to the levers E E, the upper ends of rods g g will be pressed against the springs t t, and the hooks at their lower ends disengaged from the perforations on the wheel-like devices C C, and the long arms of levers E E pushed forward or backward, as the case may require, and the hooks suffered to enter the appropriate perforations on the wheel-like devices C C.

It will be observed that when the levers E E are nearly in a vertical position the shovels will be elevated as far as is necessary above the surface of the earth, and the above adjustment of levers E E will be between the top holes in the wheel-like devices C C and the lower holes in said devices.

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

The side bars, B B, when cast with recesses on their inner sides to receive the cross bars or beams A A, substantially in the manner specified.

In testimony that I claim the foregoing as my own I affix my signature in presence of two witnesses.

A. L. CHUBB.

Witnesses:

T. H. ALEXANDER,
J. W. MISTER.