

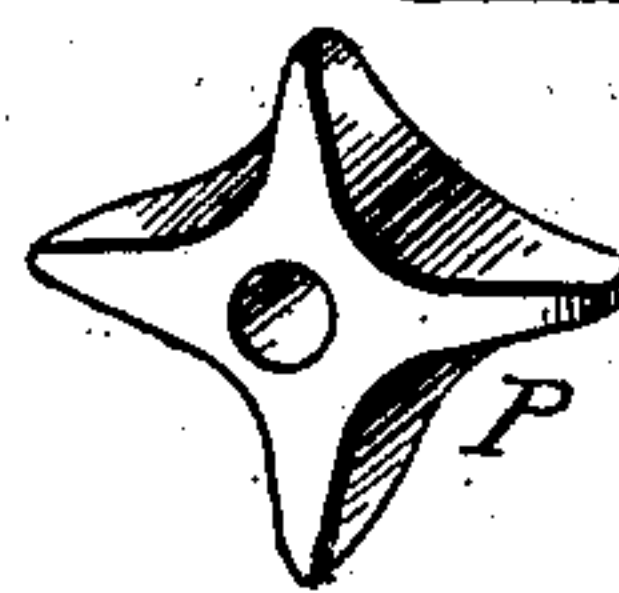
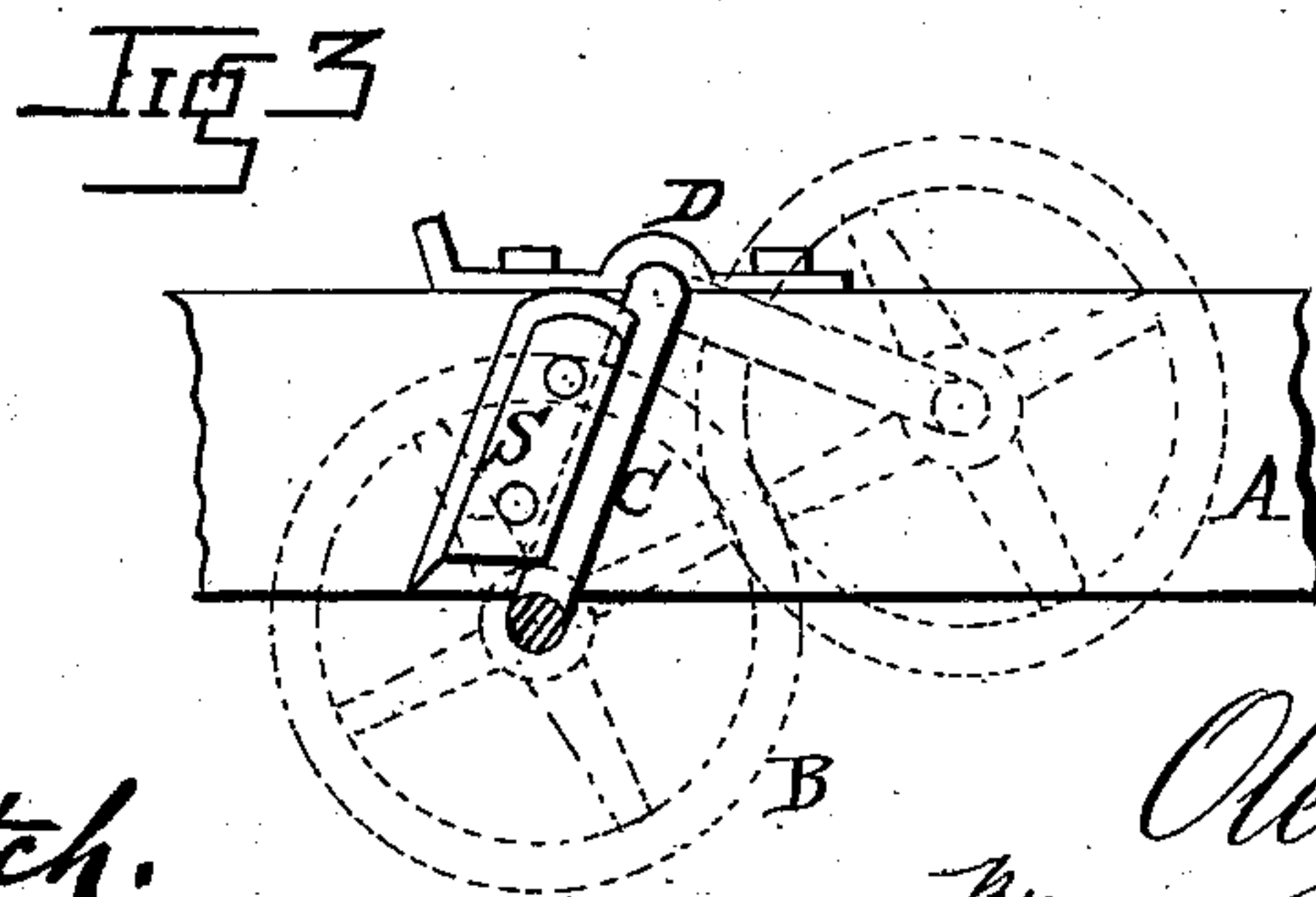
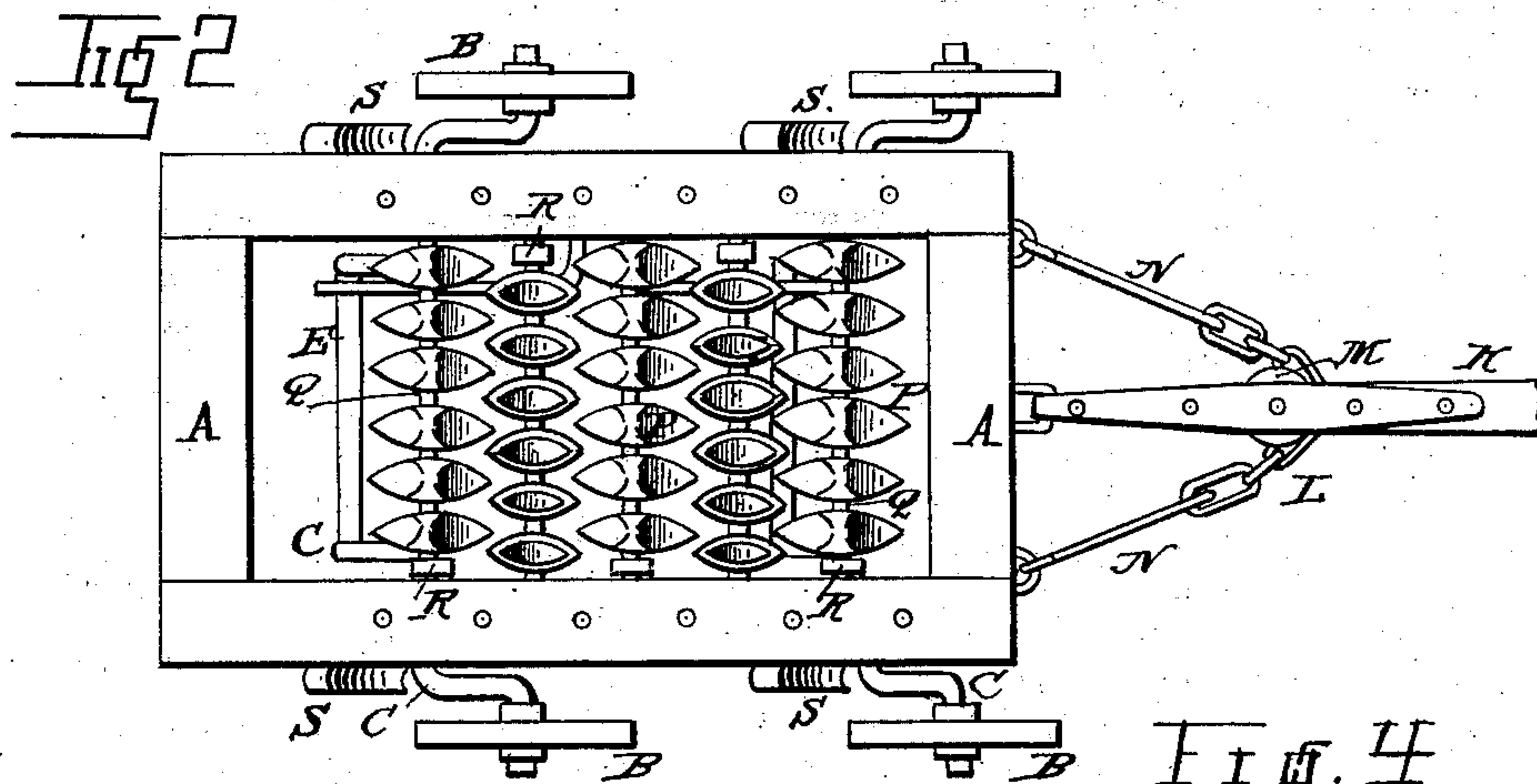
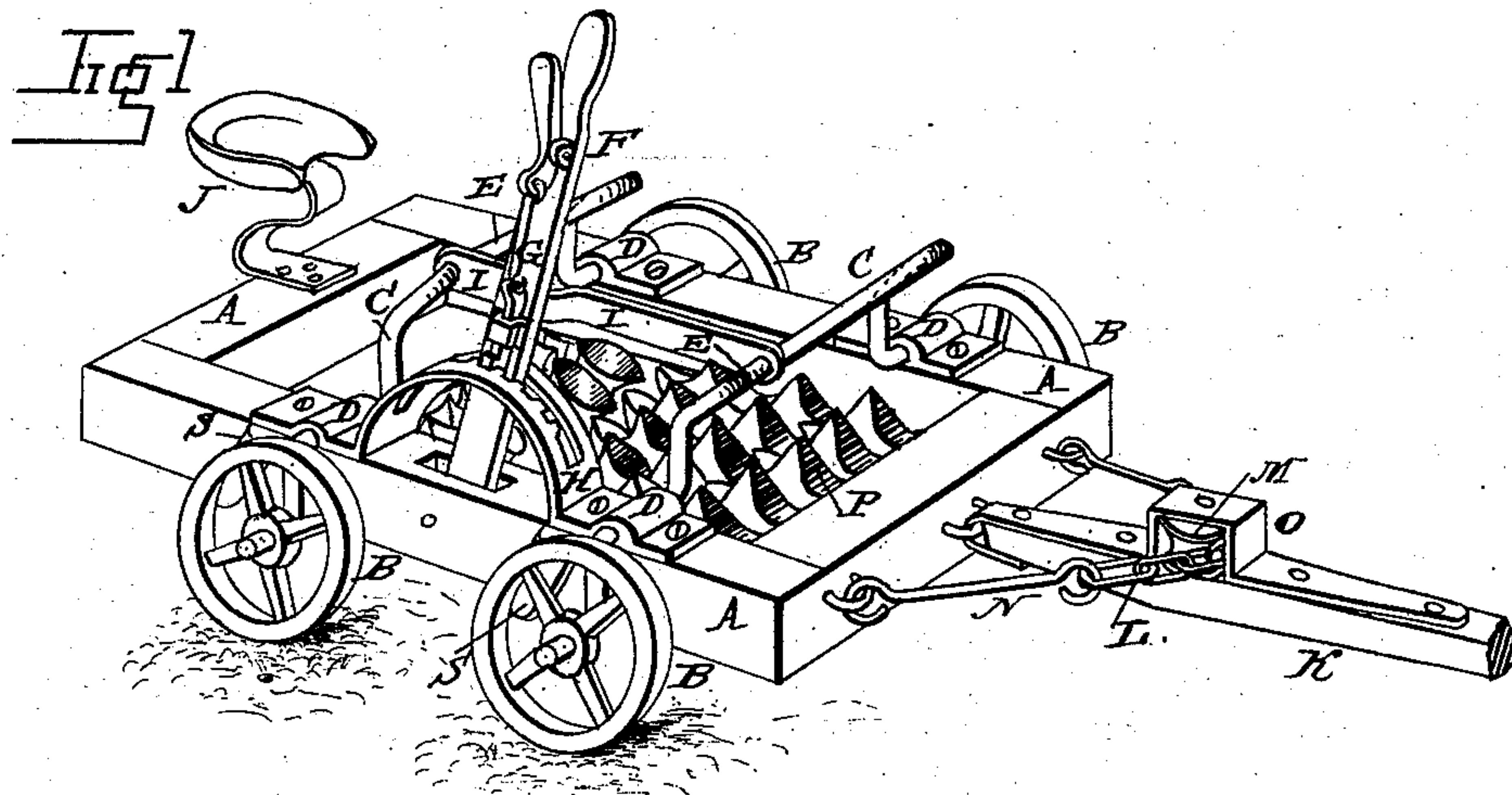
(No Model.)

O. A. SATRANG.

CLOD CRUSHER.

No. 281,303.

Patented July 17, 1883.



WITNESSES:

Ad. G. Dietrich
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UNITED STATES PATENT OFFICE

OLEY A. SATRANG, OF ROTHSAY, MINNESOTA.

CLOD-CRUSHER.

SPECIFICATION forming part of Letters Patent No. 281,303, dated July 17, 1883.

Application filed February 21, 1883. (No model.)

To all whom it may concern:

Be it known that I, OLEY A. SATRANG, of Rothsay, in the county of Wilkin and State of Minnesota, have invented certain new and useful Improvements in Clod-Crushers; and I do hereby declare that the following is a full, clear, and exact description of the invention, which will enable others skilled in the art to which it appertains to make and use the same, reference being had to the accompanying drawings, which form a part of this specification, and in which—

Figure 1 is a perspective view of my improved clod-crusher. Fig. 2 is a bottom view of the same, and Figs. 3 and 4 are detail views.

Similar letters of reference indicate corresponding parts in all the figures.

My invention has relation to clod-crushers; and it consists in the improved construction and combination of parts of the axles and frame of a clod-crusher, by which it may be raised above the ground, rolling on its wheels when it is to be transported from one place to another, as hereinafter more fully described and claimed.

In the accompanying drawings, the letter A indicates a rectangular frame, in which the pointed crushing-disks are journaled. The frame is mounted upon wheels B, which are journaled upon the outward bent ends of the bent axles C, which rock in bearings D upon the frame, and have a central cranked portion, E, which spans the frame. A lever, F, having a spring-lock, G, engaging a segmental rack, H, is hinged in the upper surface of the frame, and is connected by means of arms I to the cranked portion E of the axles, the arms being hinged to the lever and to the cranks. By means of this lever, which is within easy reach from the driver's seat J, the frame may be raised or lowered, as desired, the wheels resting on the ground, so that the crushing-disks may be brought into close contact with the ground, or entirely raised above it when the crusher is to be moved from one place to another.

To the front end of the frame is hinged a tongue, K, to which the team is hitched, and

which serves to keep the crusher from coming too close upon the team. A chain, L, is fastened at both ends to the front end of the frame, with one end upon each side of the tongue, and passes over a pulley, M, upon the upper side of the tongue. Two links, N, larger than the others, prevent the tongue from being turned too far to either side, as they are too large to pass over the pulley between it and the stirrup O, which holds the pulley in place upon the tongue, and thus prevents the team from turning so far around as to come in contact with the crusher.

The pointed crusher-disks P are journaled upon shafts Q across the frame, and are thicker at their centers than at their edges. They turn, each independent of the others, upon the shafts, which are placed at such a distance from each other that the points of the disks in one row will fit into the spaces between the disks in the next, so that the clods in the ground will be caught by the points as the disks revolve, and be broken between the points of the two adjoining rows of disks. At the alternate ends of each shaft is a nut, R, between the frame and the outer disk, which nut, being one-half the thickness of the disks, will keep the disks in their proper relative position.

Upon the sides of the frame, to the rear of the axle-bearings, are fastened four blocks, S, inclined toward the front, and recessed or grooved upon their front sides or edges, adapted to receive the lower vertical portions of the bent axles, when the latter are turned so as to raise the frame to roll upon the wheels, the weight of the frame thus resting upon the blocks, instead of upon the bearings, and the recesses in the front edges of the blocks, into which the vertical portions of the axles fit, will hold the said portions in place, preventing them from jumping out of place when the wheels strike any unevenness in the road.

Having thus described my invention, I claim and desire to secure by Letters Patent of the United States—

The combination of the frame A, having the crusher-disks P journaled in the same, and hav-

ing the fixed inclined blocks S secured upon its
sides to the rear of the axle-bearings, and
grooved or recessed upon their forward edges,
with the bent axles C E, having wheels B, rock-
5 ing in bearings D, and operated by means of
hand-lever F and connecting-arms I, as and
for the purpose shown and set forth.

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

OLEY A. SATRANG.

Witnesses:

H. G. STORDOCK,
JOHAN A. BACKAU.