

P. I. & P. Schmitt,
Setting Drill Teeth.
No. 87,074. Patented Feb. 16, 1869.

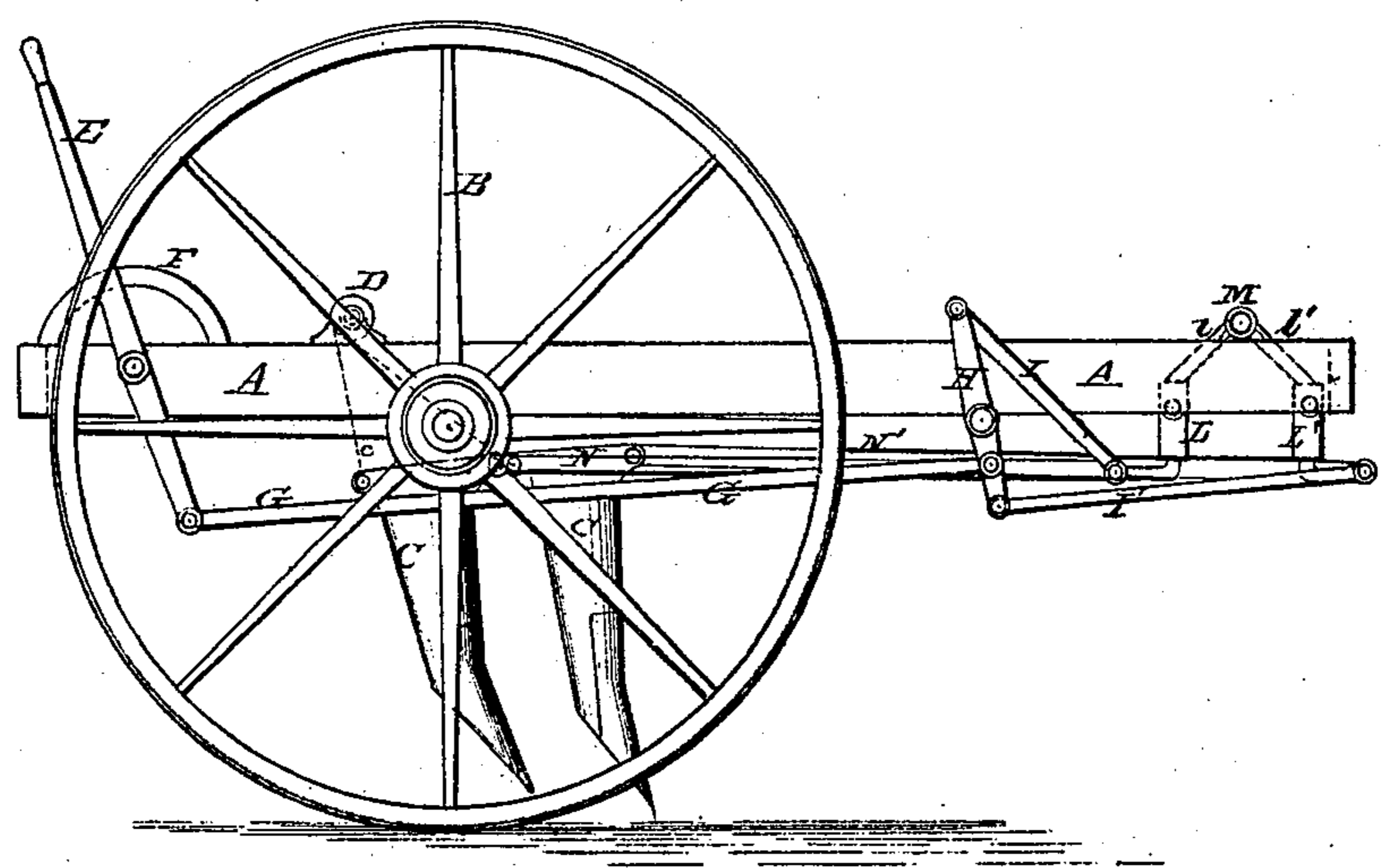


Figure 1.

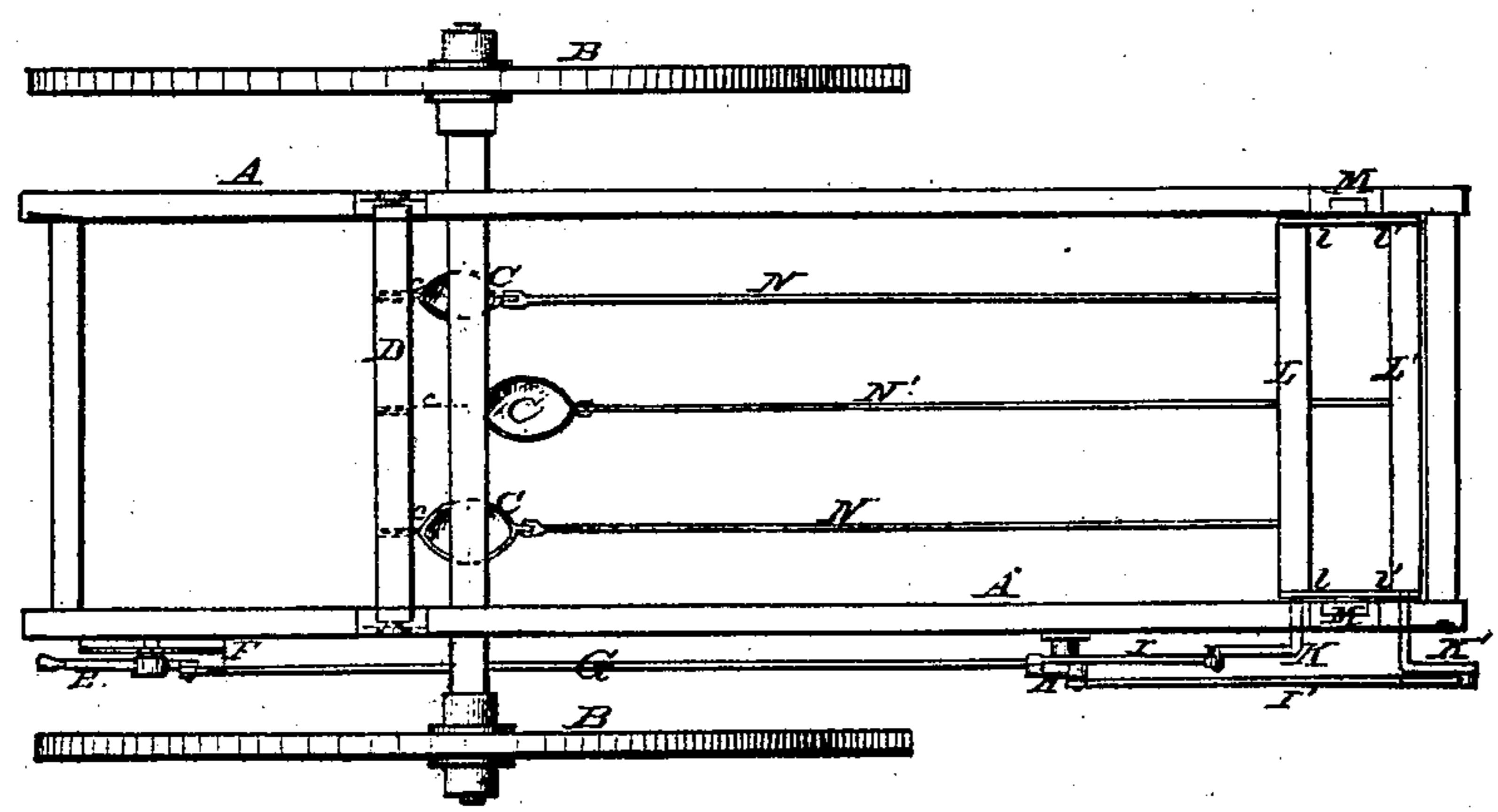


Figure 2.

Witnesses:

Wm. H. Hirsch
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Inventors:

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UNITED STATES PATENT OFFICE.

PETER I. SCHMITT AND PETER SCHMITT, OF WATERLOO, ASSIGNORS TO
SIEGEL, SCHMITT & CO., OF CARLINVILLE, ILLINOIS.

IMPROVEMENT IN DRILL-TEETH SETTING.

Specification forming part of Letters Patent No. 87,074, dated February 16, 1869.

To all whom it may concern:

Be it known that we, PETER I. SCHMITT and PETER SCHMITT, of Waterloo, in the county of Monroe and State of Illinois, have made certain new and useful Improvements in Drill-Teeth Settings; and we do hereby declare that the following is a full and clear description thereof, reference being had to the accompanying drawings, and to the letters of reference marked thereon.

The nature of this invention relates to the manner of arranging the teeth or flukes of the seed-planting or drilling machine.

It becomes advantageous to set the teeth or flukes farther apart in very rough ground, where the clods are large, and thereby permit these clods to escape between the points of the drill-teeth more readily. Now, as the teeth of an ordinary seed-drill are usually suspended, ranging side by side, to the number of eight or more, transversely across the drilling-machine, it is found most advantageous to increase the distance between the contiguous teeth by moving the alternate ones in advance of the rest, and this to accomplish we have arranged as hereinafter more fully set forth.

To enable those skilled in these arts to make and use our said invention, we will proceed to describe the same, referring to—

Figure 1 as an elevation, and to Fig. 2 as a plan, illustrating the manner of setting and operating the drill-teeth.

We use the frame A, supported on wheels B, as in the ordinary drilling-machine, and we support the drill-flukes C by chains or cords *c* on the transverse bar D. We raise and lower the flukes in the usual manner, and connect said flukes with the feed-box and seed-tubes and other feed devices, also in the ordinary manner. In order, however, that the flukes or teeth C may be set either in a straight or in a zigzag line, we have arranged them in the manner now to be described.

Usually at the rear end, and on one side of the frame A, we arrange the hand-bar E, pivoted in the frame at *e*, and guided in its rocking motion by a segment, F, which may be notched, so that a spring-clutch on E may engage in said notches, and thus the hand-bar E be held fast in any position required.

The hand-bar E operates the rod G, connecting with the lever H. This is secured to the frame A at *b*, and will ordinarily be ar-

ranged on a rock-shaft, *h*, extending across the frame A. The parts, then, arranged on such rock-shaft will be the same on both sides of the machine.

The lever H has at its ends the connecting-rods I and I', communicating with the crank-arms K, secured to the rocking bars L and L', respectively. The latter run transversely across the frame A, and are suspended by links *l l'* to the pivot M on the frame aforesaid.

The drag-bars N N' of the flukes C are connected with the bars L and L', as indicated in Fig. 2. This arrangement is such that each alternate drag-bar is connected with the same one of the bar L or L'.

The operation of said parts is, then, as follows: By the movement of the hand-bar E the rod G moves the lever H upon its journal *h*, thereby causing the connecting-rods I and I' to move the rocking bars L L' together or apart. When the same are moved together, then the rear flukes C are drawn forward and the front flukes C are drawn back, thus bringing all flukes into one line; but when the bars L L' are moved apart by the hand-bar E and its connecting devices, then one portion of the flukes C is moved back from the line of its prior position and the intermediate flukes are moved forward, thus producing a setting in zigzag lines; and as the distance between the flukes is increased it will be seen that obstacles, such as clods of earth, may more readily pass between the said flukes, and the said drilling-machine thus becomes applicable to rougher classes of ground.

Having thus fully described our invention, what we claim is—

1. The rocking bars L L', the links *l l'*, and pivot M, when arranged and combined with the drag-bars N N', respectively, substantially as and for the purposes set forth.

2. The hand-bar E, rod G, lever H, and rods I and I', arranged to operate the rocking bars L and L', substantially as set forth.

In witness of said invention we have hereunto set our hands this 10th day of October, A. D. 1868, in the presence of witnesses.

PETER I. SCHMITT.
PETER SCHMITT.

Witnesses:

GEO. P. HERTHEL, Jr.,
WM. W. HERTHEL.