(No Model.) 2 Sheets—Sheet 1.

F. MARSHALL.

REVOLVING PLOW.

No. 561,717. Patented June 9, 1896.

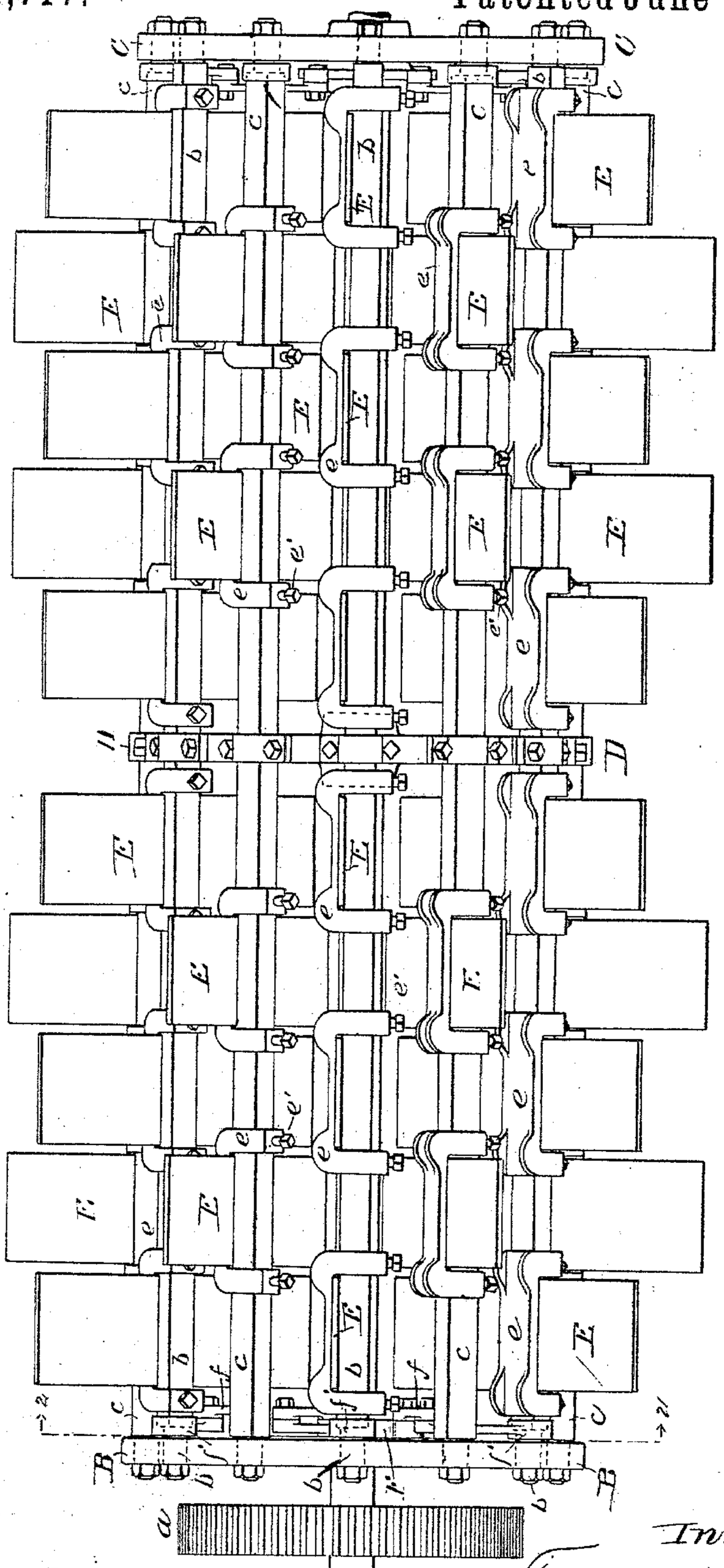


FIG. 1.

Witnesses:

Richard Bates

Edward F Woodward

Inventor:

Fayette Marshall

(No Model.)

2 Sheets—Sheet 2.

F. MARSHALL.

REVOLVING PLOW.

No. 561,717.

Patented June 9, 1896.

FIG. 5.

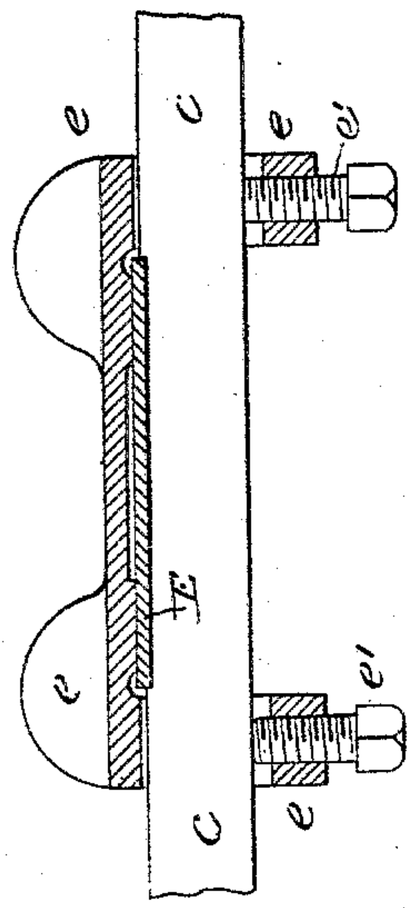


FIG. 4.

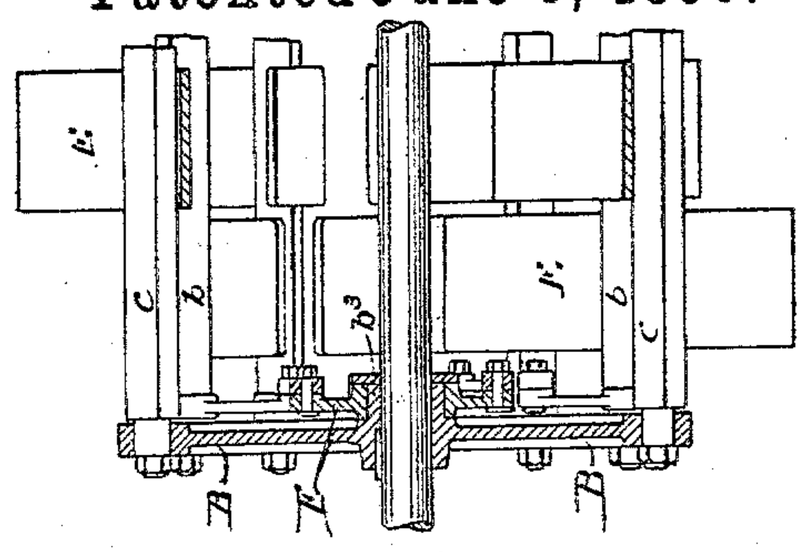


FIG. 3.

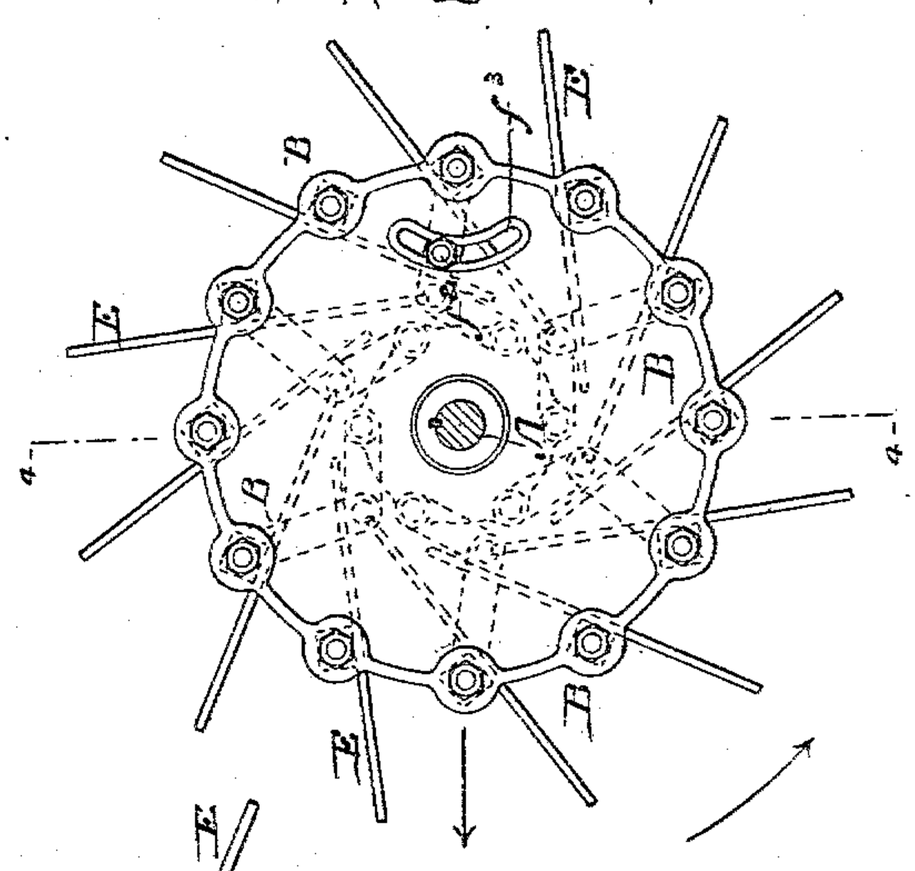
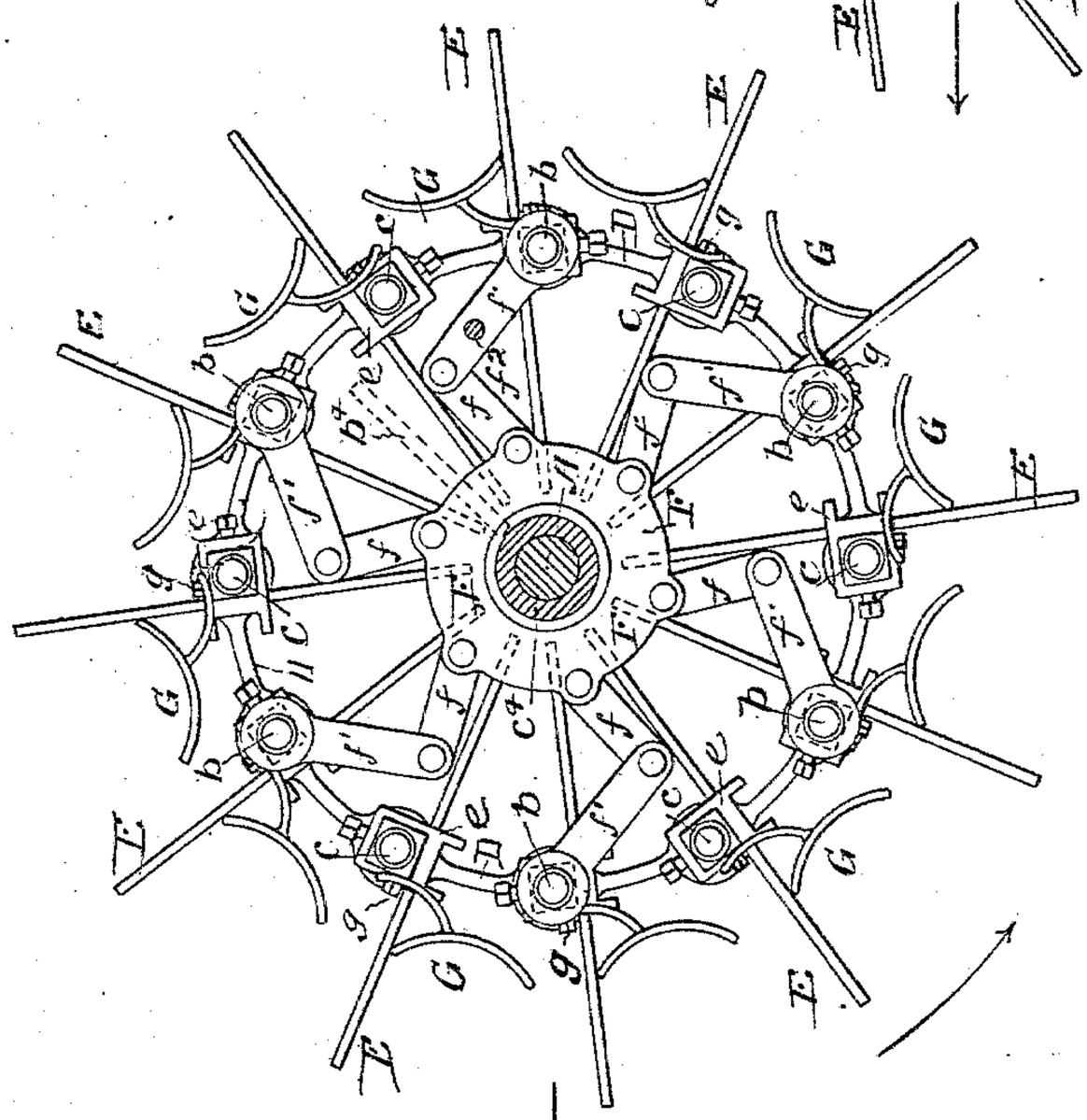


FIG. 2.



Witnesses:
Richard Bates
Edward F. Woodward

Inventor:
Ferguson Marshall

UNITED STATES PATENT OFFICE.

FERGUSON MARSHALL, OF PHILADELPHIA, PENNSYLVANIA.

REVOLVING PLOW.

SPECIFICATION forming part of Letters Patent No. 561,717, dated June 9, 1896.

Application filed January 22, 1895. Serial No. 535,807. (No model.)

To all whom it may concern:

Be it known that I, FERGUSON MARSHALL, a citizen of the United States, residing in Philadelphia, Pennsylvania, have invented new and useful Improvements in Revolving Plows, of which the following is a specification.

The object of my invention is to construct a revolving plow to be operated in conjunction with harrows, seed-drills, or rollers drawn by traction-engines or other means.

My invention also relates to the construction of the framework and the arranging of the blades in rows cutting alternately, as fully described hereinafter.

In the accompanying drawings, Figure 1 is a plan view of my improved roller-plow. Fig. 2 is a sectional view on the line 2 2, Fig. 1. Fig. 3 is an end view of the plow, showing blades at a different angle. Fig. 4 is a sectional view on line 4 4, Fig. 3. Fig. 5 is an enlarged sectional view of one of the clamps.

A is a shaft extending through the center of the plow. Mounted on said shaft are three wheels B C D, forming bearings for the square shafts carrying the blades E. These blades are secured to the shafts by clamps *e*, which are provided with set-screws *e'* to permit the adjusting of the blades as they wear off to their proper length. The blades can be set to any desired angle by the adjusting devices at either end of the machine, one end acting on the square shafts *b* and the other acting on the square shafts *c* from the opposite end. This device is more clearly shown in Fig. 2. The disk F turns loosely on a sleeve b^3, forming a part of the wheel B, as shown in Fig. 4. To this disk are pivoted a number of links *f*. These links connect with arms *f'*, fitting over the ends of the square shafts *b*, a similar device at the other end acting on the shafts *c*. In this manner I am able to adjust one set of shafts carrying the blades by simply turning the disk F with a key b^4, which can be inserted in the disk F. When the desired position is reached, the bolt f^2, projecting through the slot f^3 in the wheel B, can be tightened, thus holding all the parts rigid. The other shafts are adjusted in the same way from the other end of the machine. The blades are spaced on the shafts so as one row will cut in the space left by the preceding row alternately, as shown in Fig. 1.

In the rear of each row of blades is a shear G, bolted to the square shaft, as shown in Fig. 2, for the purpose of molding over the soil as the blade plows it up. The shear G can be set at any angle desired by the bolt *g*.

Keyed to the shaft A at one end of the machine is a gear-wheel *a*, through which the power is received for turning the plow. This plow revolves in the direction of the arrow, Fig. 3, and the machine travels in the direction shown by the other arrow. Thus the plowing motion tends to assist in propelling the machine.

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

1. The combination in a revolving plow, of a series of shafts extending the entire length of plow, cutting-blades, clamps for securing said blades to said shafts, and mechanism at either end of plow for adjusting the blades to any desired angle, substantially as described.

2. The combination in a revolving plow, of a series of shafts carrying cutting-blades, said blades being provided with a shear for molding over the soil, blades spaced on the shafts so that one row cuts in the space left by the preceding row alternately, and clamps having set-screws for setting the blades to any desired length, substantially as described.

3. The combination in a revolving plow, of the blades secured to shafts, adjusting mechanism for the blades consisting of a disk turning on sleeves on end bearings, links for connecting disk to arms fitting over the ends of the square shafts, and a bolt on one of these arms extending through the slot in the end bearing for the purpose of tightening said arms and thus holding all the shafts rigid, substantially as described.

In testimony whereof I have signed my name to this specification in the presence of two subscribing witnesses.

FERGUSON MARSHALL.

Witnesses:

RICHARD BATES,

EDWARD F. WOODWARD.