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D. WALKER.

Improvement in Traverse Motion.

No. 122,790.

Patented Jan. 16, 1872.

Fig. 1

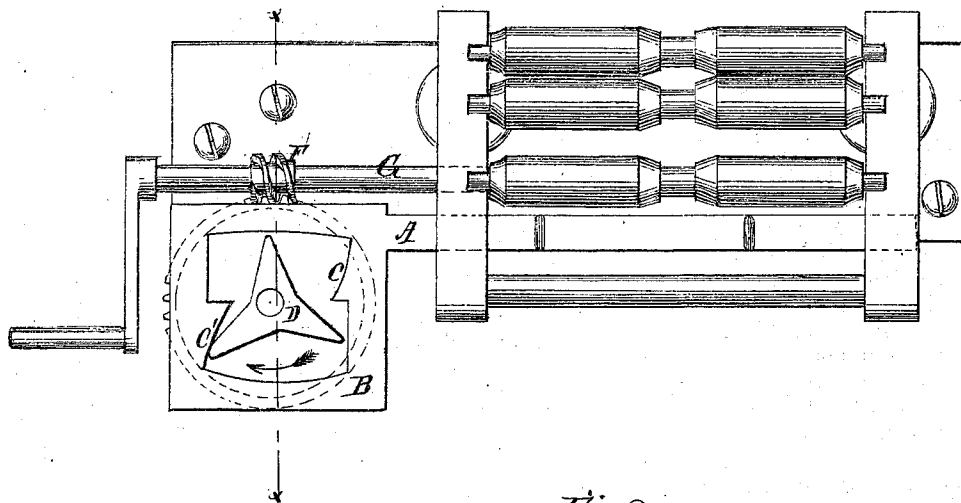
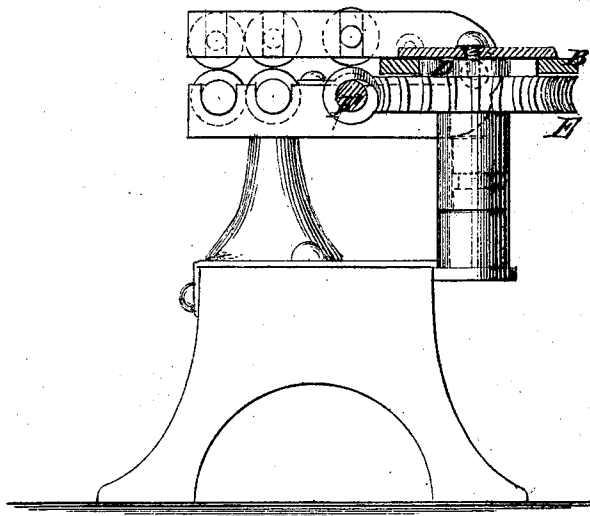


Fig. 2



Witnesses:

John Becker.
Charles McAuley.

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UNITED STATES PATENT OFFICE.

DUNCAN WALKER, OF EAST HAMPTON, MASSACHUSETTS.

IMPROVEMENT IN TRAVERSE MOTIONS.

Specification forming part of Letters Patent No. 122,790, dated January 16, 1872.

Specification describing a new and Improved Traverse Motion, invented by DUNCAN WALKER, of East Hampton, in the county of Hampshire and State of Massachusetts.

My invention consists of a three-pointed star-wheel, combined with a pair of inclined faces or cams, arranged on said bar reversely to each other, and on opposite sides of the wheel at one end of the traverse-bar, in such manner that said faces are alternately acted upon by the said star-wheel, and the bar alternately moved in opposite directions, the movement in one direction beginning as soon as the movement in the other ceases, and the said movements being uniform in speed throughout their whole length, which is the essential object of the invention, and distinguishes it from those arrangements in which the bar is moved by eccentrics, which give a variable motion to the bar, and allow it to rest or move so slow at each end that the wear of the threads or "ends" on the leather rollers is very much greater at the extremes of the movements than between them.

Figure 1 is a plan view of my improved traverse motion as applied to the draft-rollers of spinning machinery. Fig. 2 is a section of the same taken on the line *xx* of Fig. 1.

Similar letters of reference indicate corresponding parts.

A represents the traverse-bar, which assumes the form of a wide plate, B, at one end, in which is a large hole, whose walls, which are perpen-

dicular to the bar, have each an inclined plane or cam, C, which, beginning at a corner of said hole, incline toward the center of it to some extent, and stop at a line parallel with the bar A, and passing through the center of said hole. One of said cams is on the same side of said center that the bar B is, and the other is on the opposite side. D is a three-pointed star-wheel arranged to revolve horizontally in said hole on the axis of a worm-wheel, E, below, which is turned by a worm, F, on the shaft G of one of the draft-rollers. This star-wheel and the cams are so adjusted relatively to each other that one of the points will begin to act on one of the cams to move the bar in one direction at the moment another point escapes from the other cam, and ceases to move said bar in the other direction.

These cams will not be straight inclines, but will have such form that the motion imparted to the bar by the revolving points will be uniform in respect of speed throughout each movement.

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

The combination, with the traverse-bar and its cams C C', of the star-wheel D, all arranged substantially as specified.

DUNCAN WALKER.

Witnesses:

WILLIAM STRATTON,
CLARENCE E. WARE.

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