

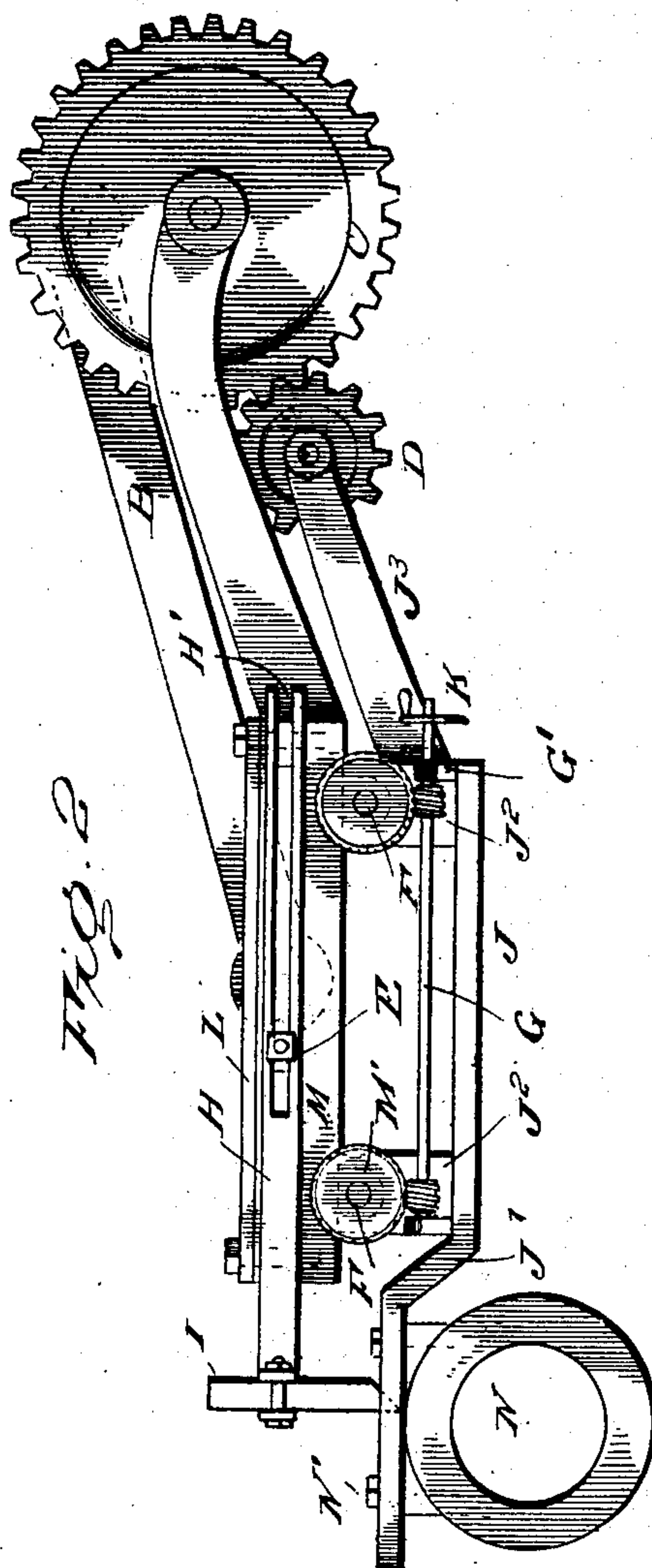
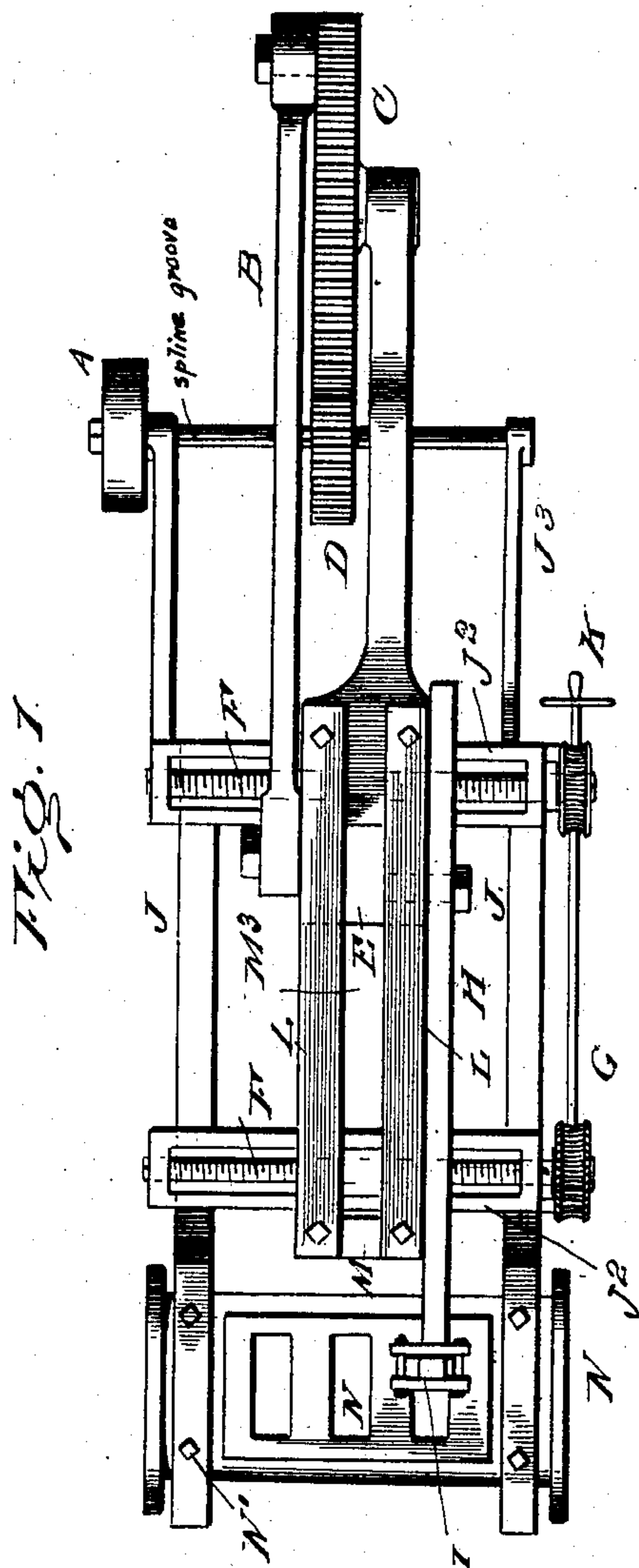
No. 753,786.

PATENTED MAR. 1, 1904.

W. H. BEAN.
PORTABLE VALVE SEAT PLANER.

APPLICATION FILED SEPT. 4, 1903.

NO MODEL.



Witnesses

John R. Cottin
John R. Cottin

W. H. Bean,

By *Charles M. Catlin*

Attorney

UNITED STATES PATENT OFFICE.

WILLIAM HUGH BEAN, OF BIRMINGHAM, ALABAMA, ASSIGNOR OF ONE-HALF TO H. C. MEAD, OF BESSEMER, ALABAMA.

PORTABLE VALVE-SEAT PLANER.

SPECIFICATION forming part of Letters Patent No. 753,786, dated March 1, 1904.

Application filed September 4, 1903. Serial No. 172,017. (No model.)

To all whom it may concern:

Be it known that I, WILLIAM HUGH BEAN, a resident of Birmingham, in the county of Jefferson and State of Alabama, have invented certain new and useful Improvements in Portable Valve-Seat Planers; and I do hereby declare the following to be a full, clear, and exact description of the invention, such as will enable others skilled in the art to which it pertains to make and use the same.

The invention consists in an improved portable tool-feeding machine adapted to efficiently feed the tool transversely of the work.

The invention consists in the construction hereinafter described and pointed out.

In the accompanying drawings, Figure 1 is a plan view of the machine in position for use. Fig. 2 is a side view of the same.

The machine comprises a supporting-frame for the mechanism, with means, as bolts N', for securing the frame, for example, by its side members J to the work, which in this case is an engine-cylinder N, with a valve-seat on its upper side to be planed. Said supporting-frame has cross members J², which are channel shape, the bottom being secured to side bars J and the ends having holes forming bearings in which screws F can turn, but in which said screws do not move longitudinally in use. The screws at their forward ends have worm-wheels engaged by worms on shaft G, which has a hand-wheel K.

G' represents extensions from the cross members for supporting shaft G. Bars J have a downward bend at J'.

The forward member J² has extensions J³ supporting a shaft for the drive-pulley A. D indicates a pinion on said shaft and splined thereto, so as to be capable of considerable movement longitudinally of said shaft while turning with it. C is a larger wheel driven by wheel D, and part B is a connecting-rod between wheel C and head E, being connected to the head by a bolt. Part M is the body of a movable carriage-frame having upturned ends, to the top of which are secured strips L, which have a space between them which receives and guides the top extension of head E, and M³ is the way in which the head trav-

els. The bottom of frame M has lugs M' extending into the channels of the cross members of the lower frame and having screw-openings for screws F.

Arm H, which is the carrying-arm for the tool I, has a longitudinal slot H', through which extends the fastening-bolts for adjustably holding the arm in position.

The described machine is easily attached to and detached from the work and moved to other work when necessary.

When the machine is secured to its work, the carriage is moved to its initial work position by turning handle K reversely, the tool is properly adjusted on the surface to be planed, and power is applied at pulley A. By turning handle K the operator slowly moves the carriage and reciprocating tool transversely until the tool has moved across the whole surface being planed. This operation may then be repeated. Bolts N' are then removed, and the machine may be easily shifted to another cylinder.

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

In a portable valve-seat planer the combination of a frame fixed when in use, and consisting of side members J and channel-shaped cross members J², screws inclosed in said cross members and having bearings in the ends thereof, worm-wheels, extensions J³, a splined driving-shaft supported thereby, a transversely-movable carriage having depending lugs M' with threaded openings engaging said inclosed screws within the cross members, the head movable back and forth in the movable carriage, the wheel C driven by wheel D and supported by a bracket extending from said movable carriage, a connecting-rod between wheel C and said head, and a tool-carrying arm H.

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

WILLIAM HUGH BEAN.

Witnesses:

H. C. MEAD,
BYRON SMITH.