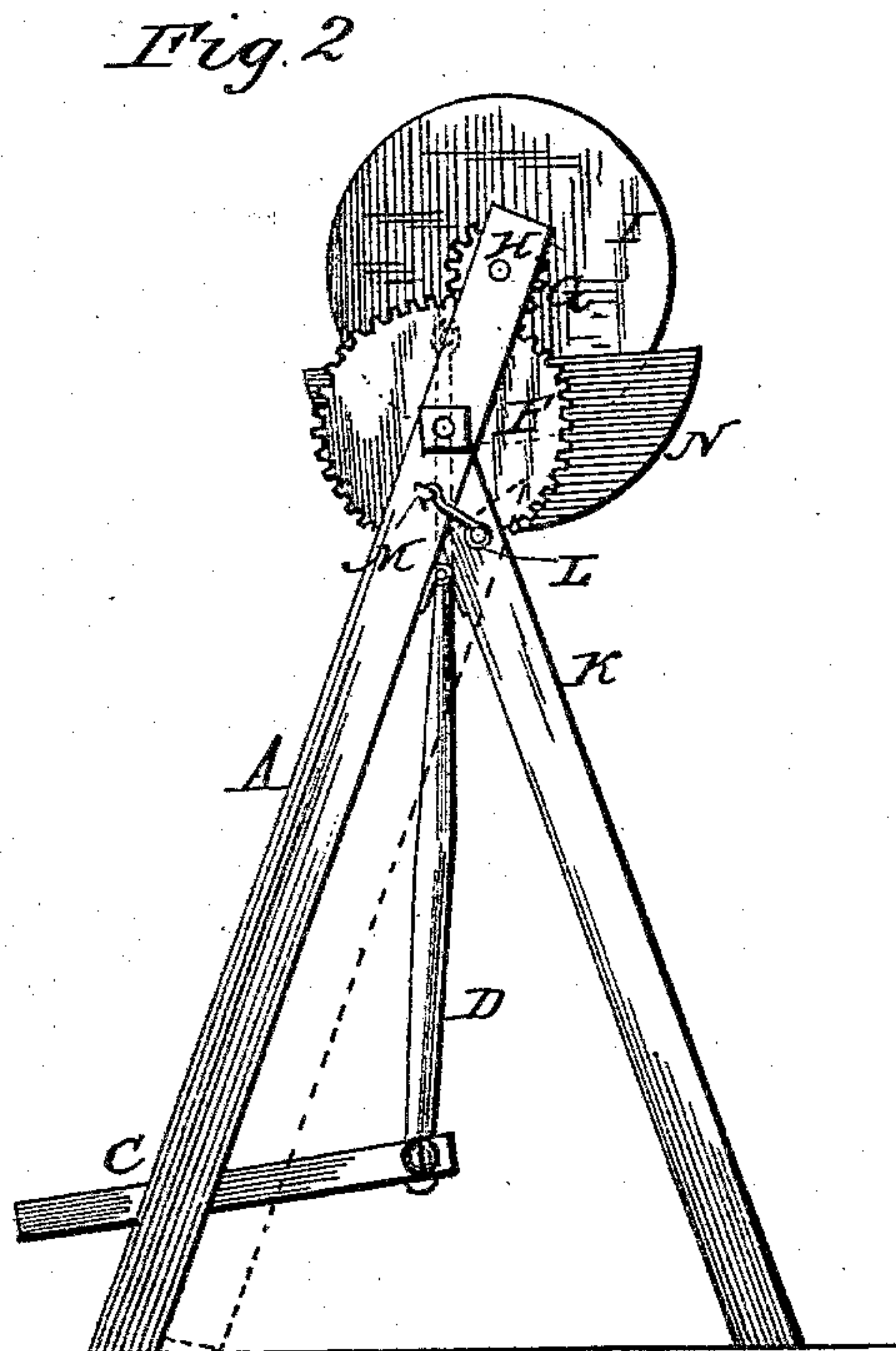
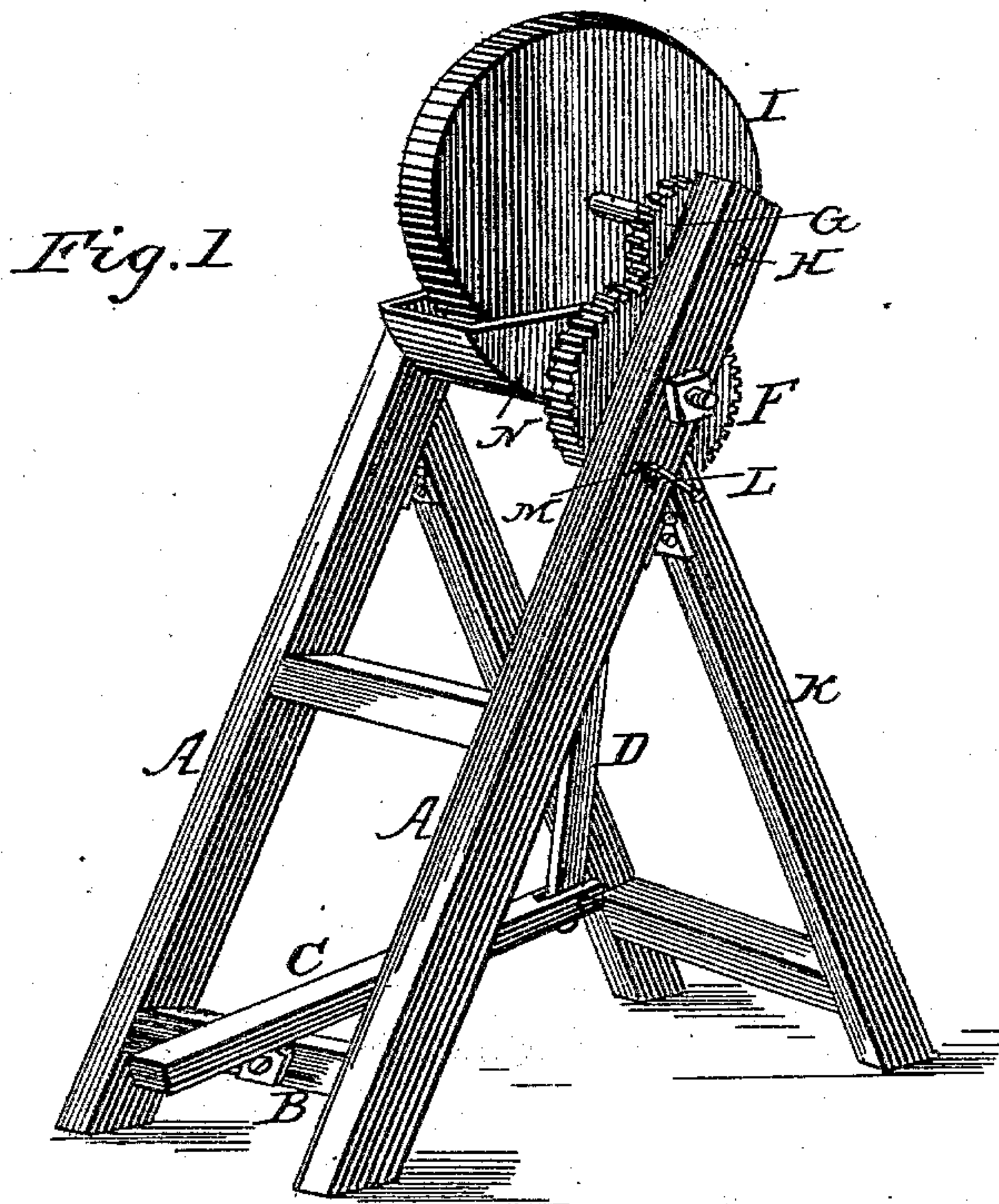


(No Model.)

I. N. SMITH.
GRINDING MACHINE.

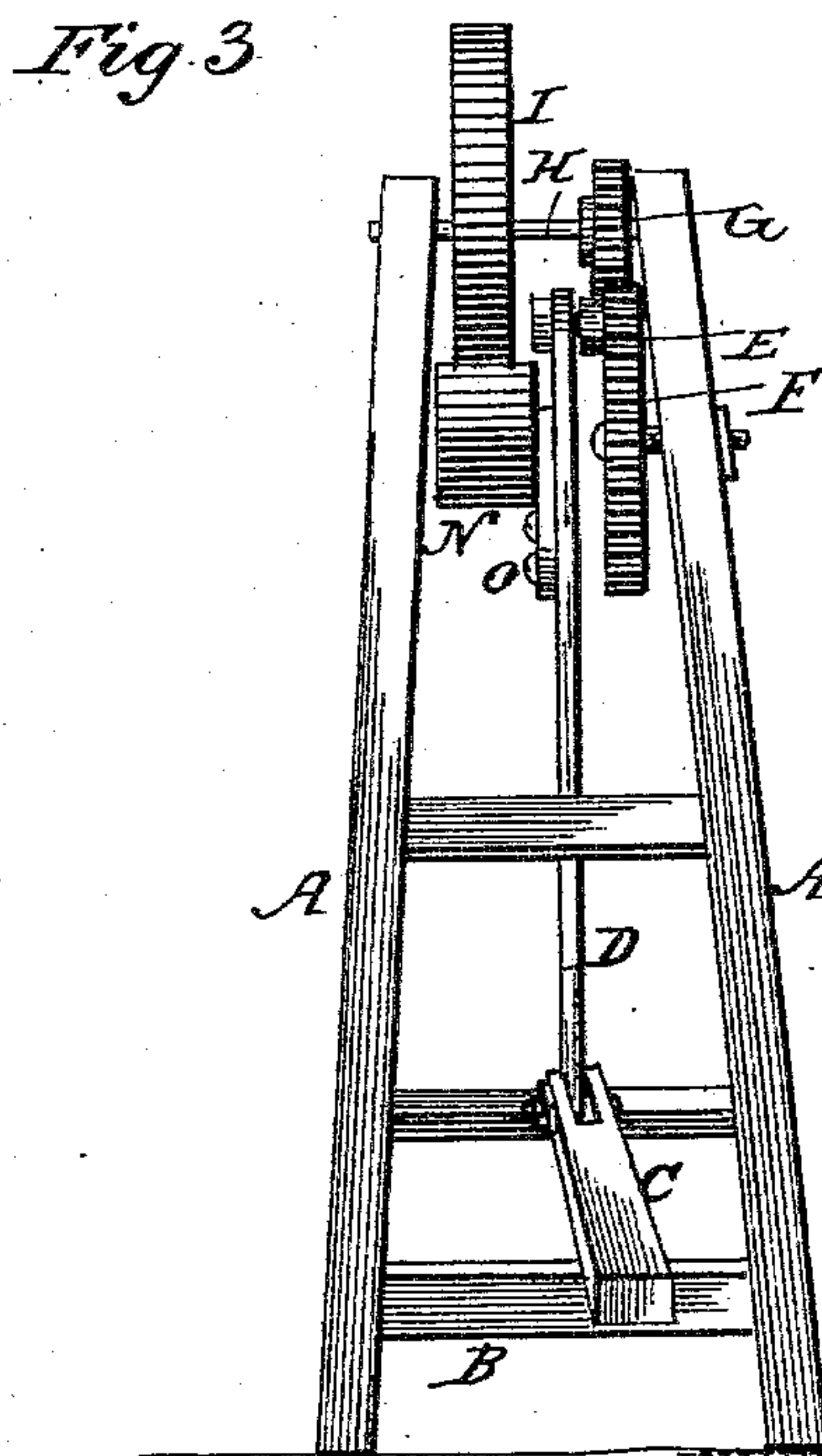
No. 281,151.

Patented July 10, 1883.



WITNESSES:

Ed. L. Dietrich
Arthur L. Morsell



INVENTOR,

Isaac N. Smith
By Louis Bagger & Co.
ATTORNEYS.

UNITED STATES PATENT OFFICE.

ISAAC N. SMITH, OF ASHLEY, ILLINOIS.

GRINDING-MACHINE.

SPECIFICATION forming part of Letters Patent No. 281,151, dated July 10, 1883.

Application filed May 28, 1883. (No model.)

To all whom it may concern:

Be it known that I, ISAAC N. SMITH, of Ashley, in the county of Washington and State of Illinois, have invented certain new and useful
5 Improvements in Grinding-Machines; 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,
10 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 grinding-machine. Fig. 2 is a side elevation of the same, and Fig. 3 is a front view.

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

My invention has relation to machines for grinding and polishing tools of any kind; and
20 it consists in the improved construction of the same, which will be hereinafter more fully described and claimed.

In the accompanying drawings, A A are the side pieces of the front frame, upon the cross-bar B, in the lower part of which is pivoted a
25 treadle, C, the inner end of which is connected to the pitman D. The upper end of this connects with the wrist-pin E of a gear-wheel, F, which meshes with the pinion G of a shaft, H, upon which the grindstone or polishing-wheel
30 shown at I is affixed.

To the back part of frame A is hinged the supporting-frame K; which, when the machine is in use, is held in its extended position by
35 means of hooks L, engaging staples M on the sides of frame A. When the machine is not in use, the supporting-frame K may be laid up against the front frame, A, as indicated in dotted lines in Fig. 2, when the machine will
40 occupy but very little room.

Fastened removably and adjustably upon the pitman D, by set-screws O or any other suitable means, is a box or reservoir, N, adapted to contain water, oil, or polishing-

powder, as the case may be, according to the
45 nature of the work to be done on the machine. This box or reservoir is so adjusted upon the pitman that at each upstroke of the latter the rim of the grindstone will dip in its contents, while on the downstroke it will be re-
50 moved therefrom. Thus it will be seen that the grindstone is dipped in the water or oil once at each revolution, and no more, whereby I prevent excess of fluid on the stone, the
55 water or oil which it carries with it at each dipping dropping back again into the reservoir as this is withdrawn from the stone on the downstroke of the pitman. In other words,
60 I feed the water or oil to the stone in the exact proportion needed to accomplish the most satisfactory results without any extra labor or mechanism.

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

1. In a grinding or polishing machine, the combination, with the grindstone or polishing-wheel, of a receptacle adapted to contain water, oil, or other fluids, or material, in a powdered state, secured adjustably and removably
70 upon the pitman which operates the stone or wheel, substantially in the manner and for the purpose shown and set forth.

2. The combination of the frame A, hinged supporting-frame K, grindstone or polishing-
75 wheel I, fixed upon shaft H, having pinion G, drive-wheel F, having wrist-pin E, pitman D, removable and adjustable receptacle N, and treadle C, all constructed and combined to operate substantially in the manner and for the
80 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.

ISAAC N. SMITH.

Witnesses:

T. B. BROWN,
E. A. MESLER.