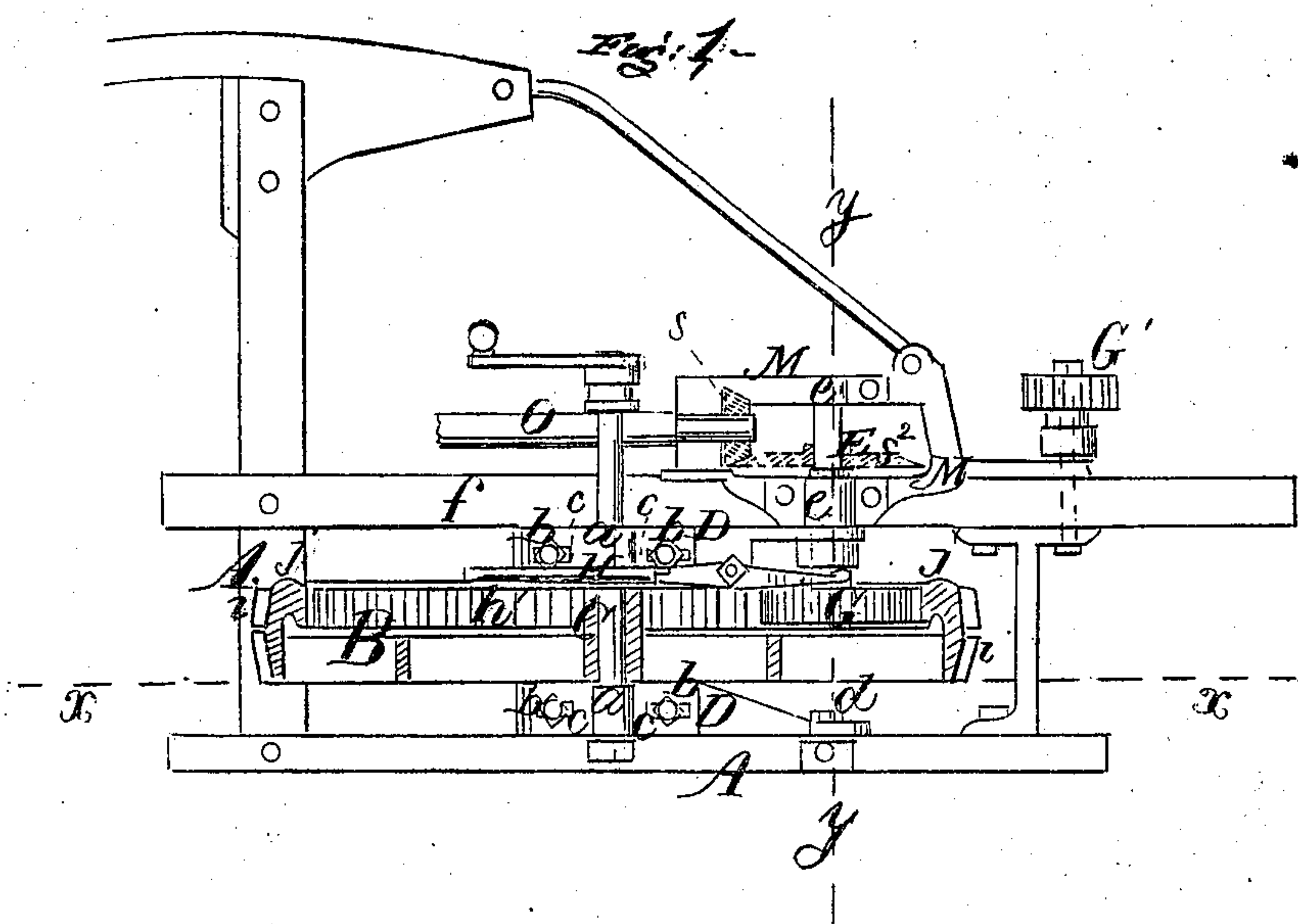
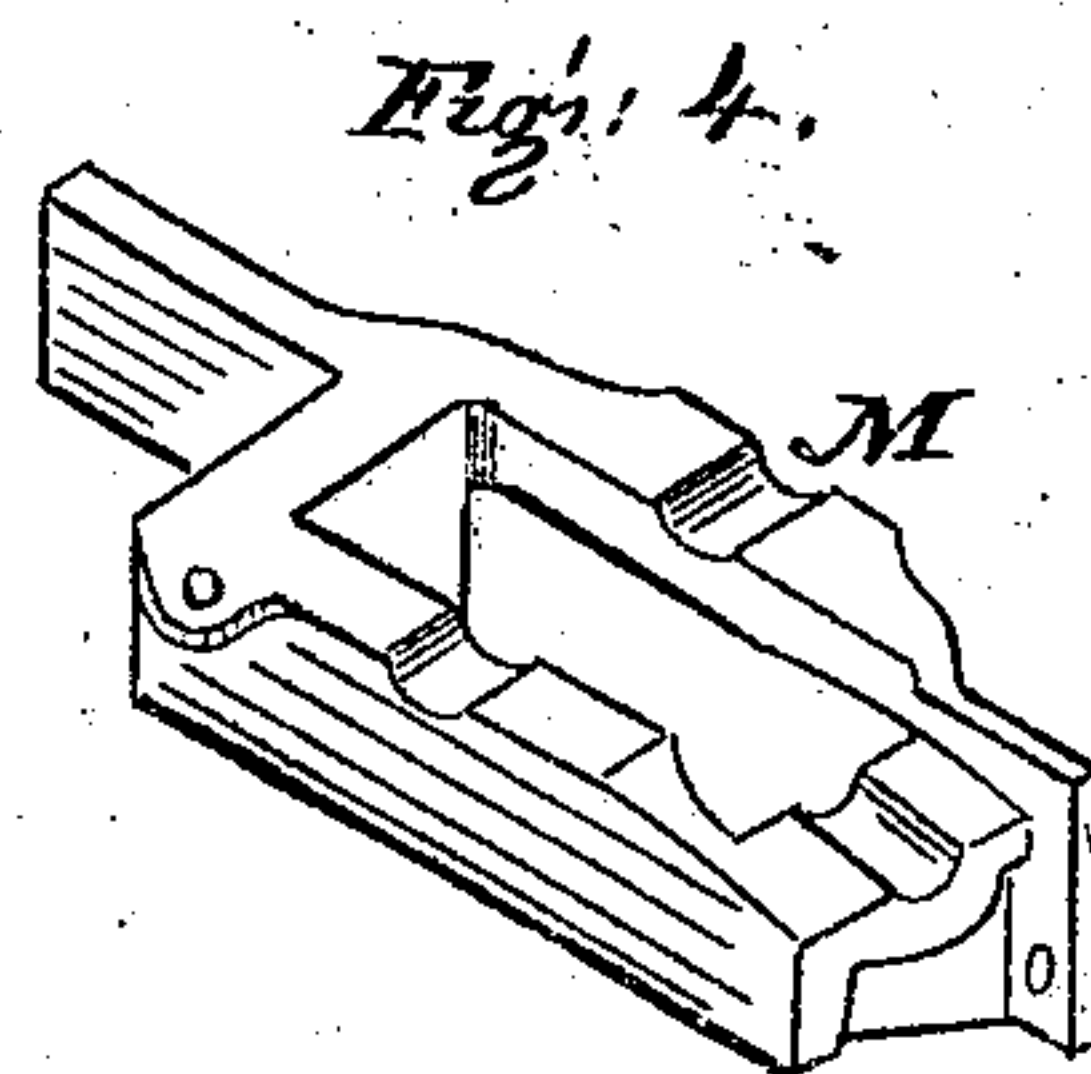
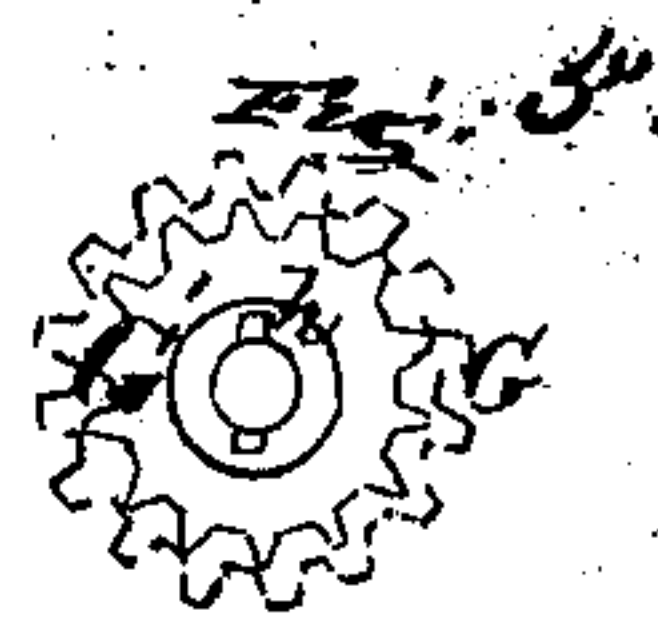
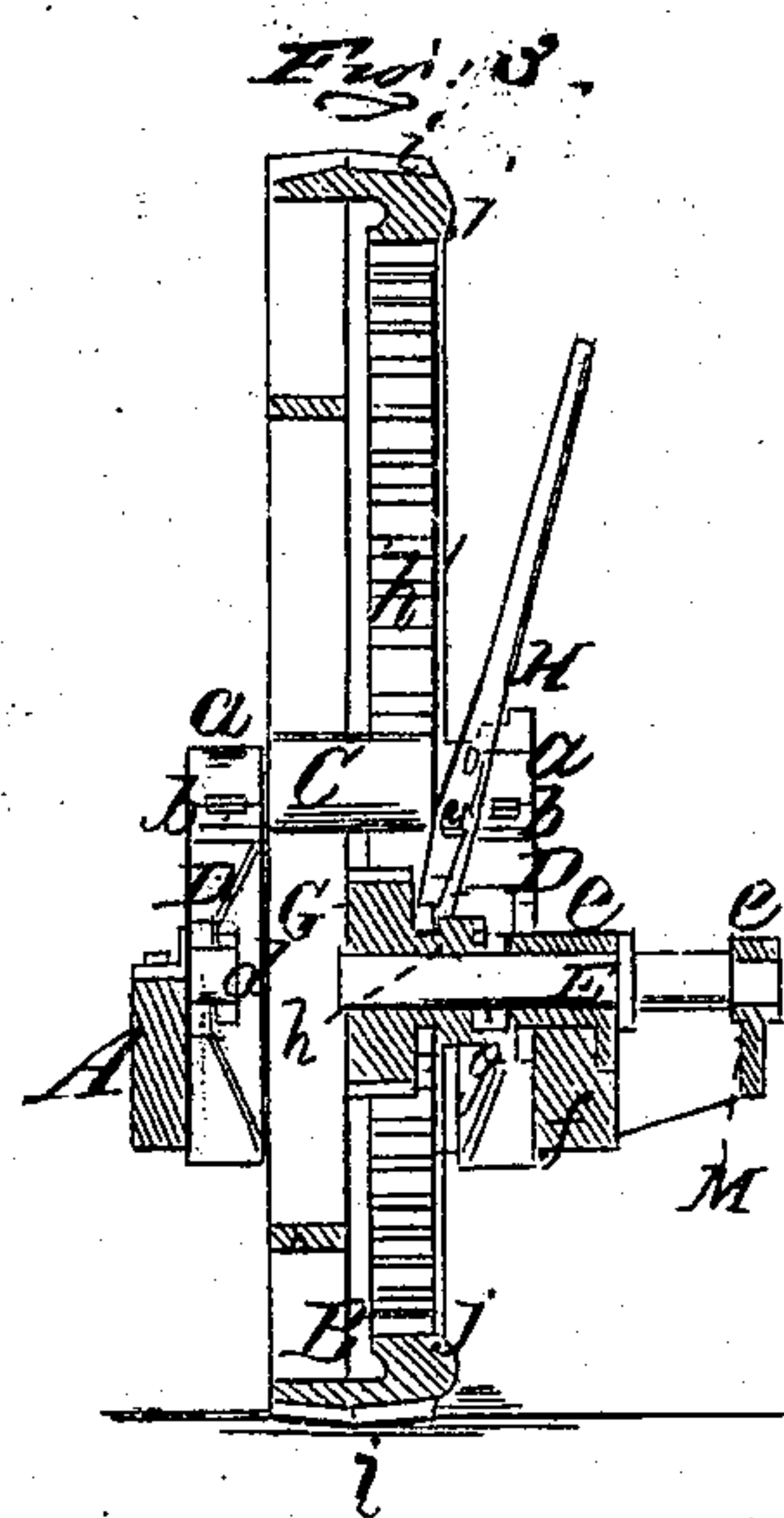
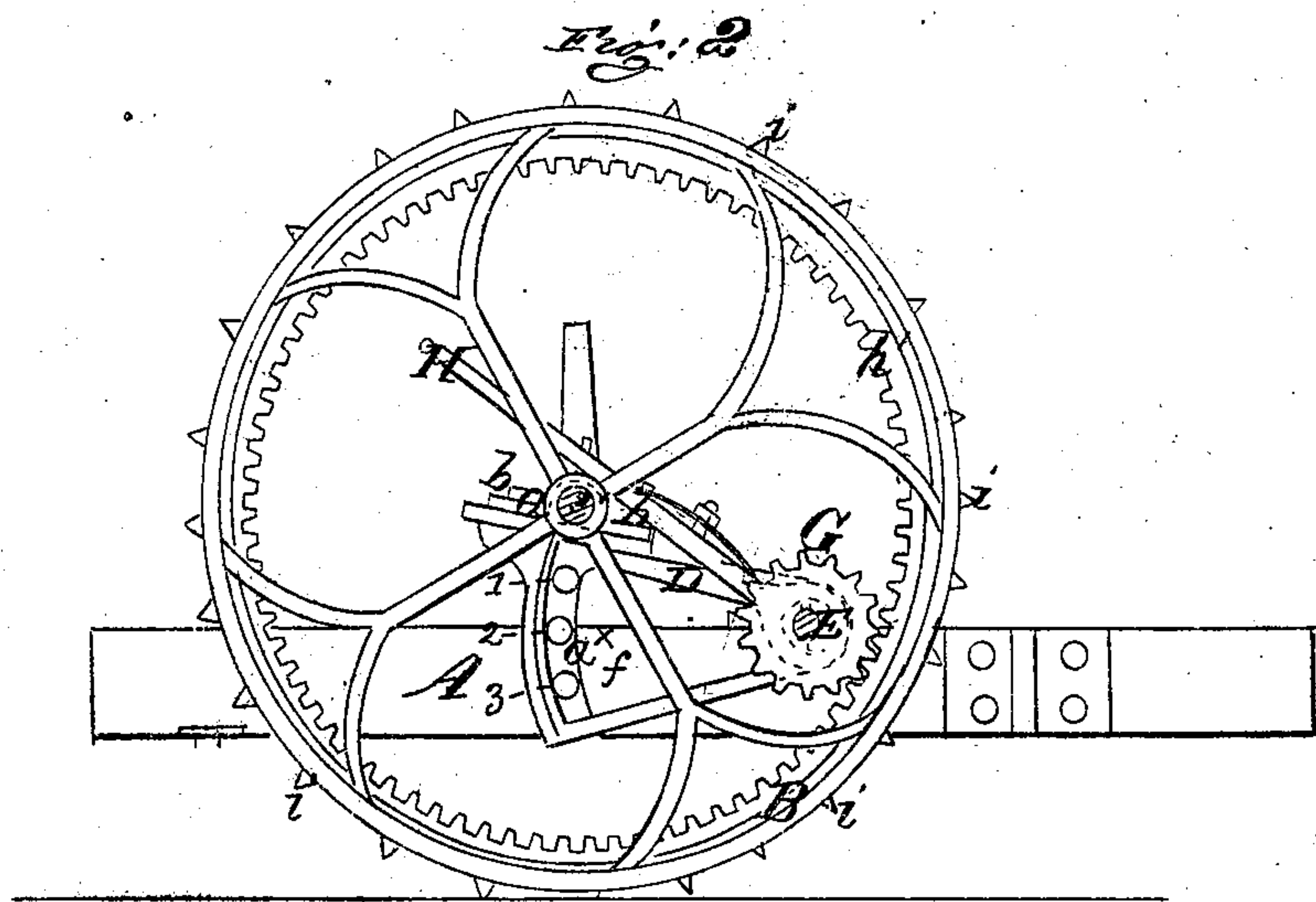


W. W. Whiteley, Mower.

No. 41,734

Patented Feb 23, 1864



UNITED STATES PATENT OFFICE.

WILLIAM N. WHITELEY, JR., OF SPRINGFIELD, OHIO.

IMPROVEMENT IN HARVESTERS.

Specification forming part of Letters Patent No. 41,734, dated February 23, 1864.

To all whom it may concern:

Be it known that I, WILLIAM N. WHITELEY, Jr., of Springfield, in the county of Clarke and State of Ohio, have invented certain new and useful Improvements in Grain and Grass Harvesters; and I do hereby declare that the following is a full, clear, and exact description of the same, reference being had to the annexed drawings, making a part of this specification, in which—

Figure 1 is a top view of a harvesting-machine embracing my invention. Fig. 2 is a vertical section at the line *x x* of Fig. 1. Fig. 3 is a vertical section at the line *y y*, Figs. 1 and 2. Fig. 4 is a perspective view of the combination-box detached from the machine; and Fig. 5 illustrates two pinions, either one of which may be used on the master-wheel's pinion-shaft.

The aforesaid invention will best be understood from the following description of it.

To enable others skilled in the art to make and use my invention, I will proceed to describe the modes in which I have practiced it, referring to the different parts in the drawings by letters, similar letters denoting the same parts in all the different views.

A is the main frame of the machine. B is the main driving and ground wheel. C is its axle, hung in boxes *a a*, and which have vertical slots *c c* in them, through which the bolts *b b* pass that confine them to the inward-projecting flanges of the sector-plates D D. Around the external face of B are projections *i* for preventing its slippage. *h* is the internal driving-gear rim, and J the convex side rim between the external rim and the cog-rim *h'*. The convex form of the connecting-plate or side rim, as illustrated at Figs. 1 and 3 of the drawings, whether cast with or secured to the external ground-rim of the wheel B, causes the earth (and especially when wet) to curl or roll away from said convex portion as it sinks into the earth, and thereby the rear part of the wheel to rise as it rolls out of the earth with less of it clinging thereto and dropped into the working parts of the machine than was the case as said wheel has heretofore been constructed. By having the wheel B thus con-

structed the machine is also operated with less power applied and less wear and breakage of the working parts than as heretofore constructed, as seen at Fig. 4.

M is a metallic combination box, which is cast in such shape as to furnish suitable bearings for the shaft E and front end of the crank-shaft O. The front end of one of the sector-plates D D is hung on the projecting end of E and the other on the stud *d*, in line therewith. The rear and wide ends of said plates have a series of holes in an arc, the center of which is the center of those in the small ends for bolts—one in each plate—that confine the frame thereto.

G is the pinion, driven by *h'*, and of as many sizes as is desired for getting the required number of reciprocations of the cutters.

S is the bevel-driver on shaft E, and *s*² is the bevel-pin on the front end of O.

H is a spring-shipper by which the pinion G is retained on E, and by which said pinion also is thrown in and out of connection with the clutch-pin *h*. On the bolt *t*, which confines the heel of the tongue to the main frame, is a pinion, G, of a different size from those shown at Fig. 5 of the drawings. The slots *c c* in the boxes *a a* permit them to be brought nearer to or farther from the shaft E, so that *h'* will properly mesh with the required sized pinion.

I do not wish to be understood as limiting my improvement in the construction of the main driving-wheel of a harvester to the making of the ground-rim, the convex side rim, and the driving-gear rim all solid together, as illustrated; but,

Having described my improvement in said wheel, what I claim as new, and desire to secure by Letters Patent, is—

Connecting the external or ground face of the wheel B with the internal gear *h'* by a convex side rim or projecting portion, *j*, substantially as described, for the purpose set forth.

WM. N. WHITELEY.

Witnesses:

G. W. HASTINGS,
I. S. CHRISTIE.