

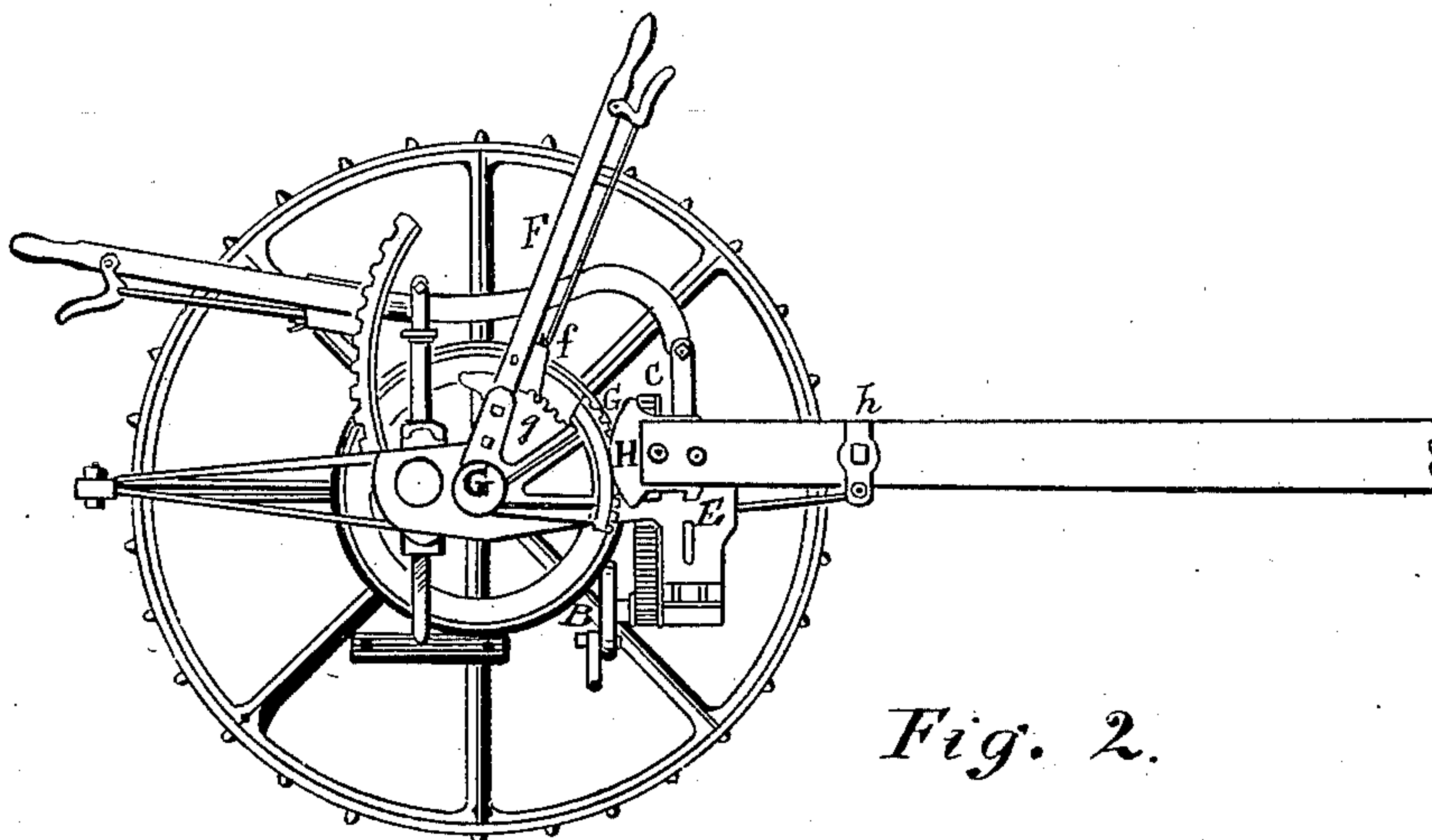
(No Model.)

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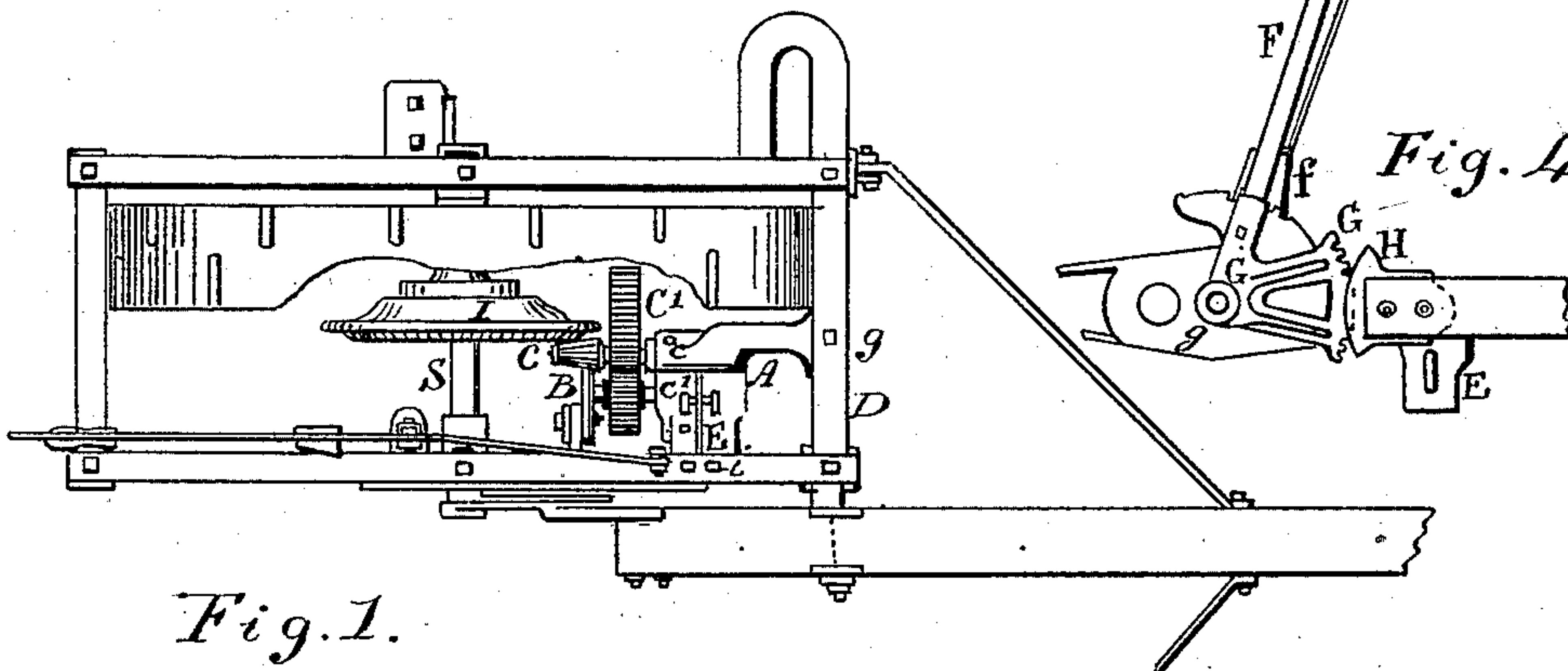
S. CRAWFORD.  
HARVESTING MACHINE.

No. 245,793.

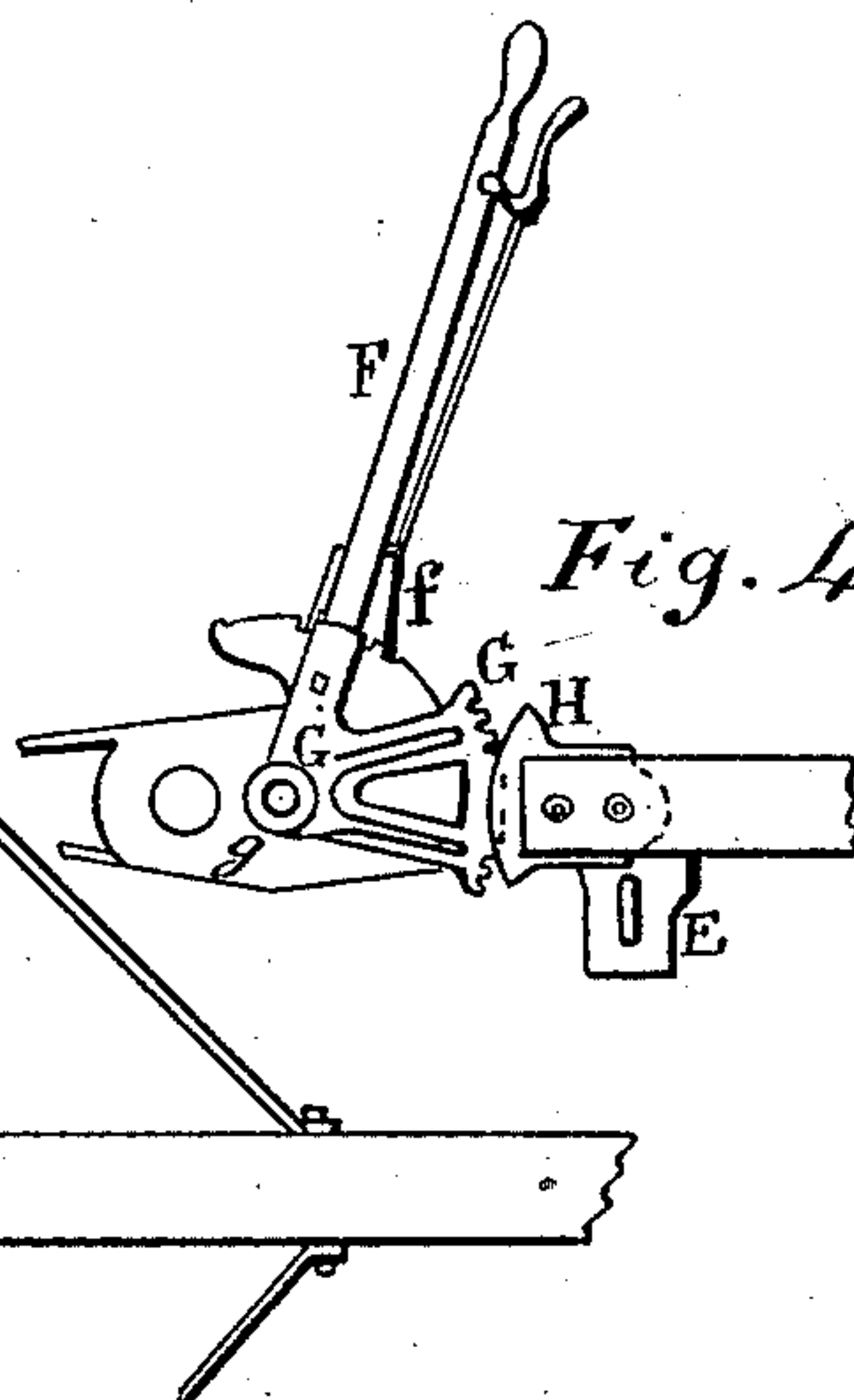
Patented Aug. 16, 1881.



*Fig. 2.*



*Fig. 1.*



*Fig. 4.*

WITNESSES

*James McNight*  
*David Marris*

INVENTOR

*Samuel Crawford*  
*his atty -*  
*Henry Beech.*

(No Model.)

2 Sheets—Sheet 2.

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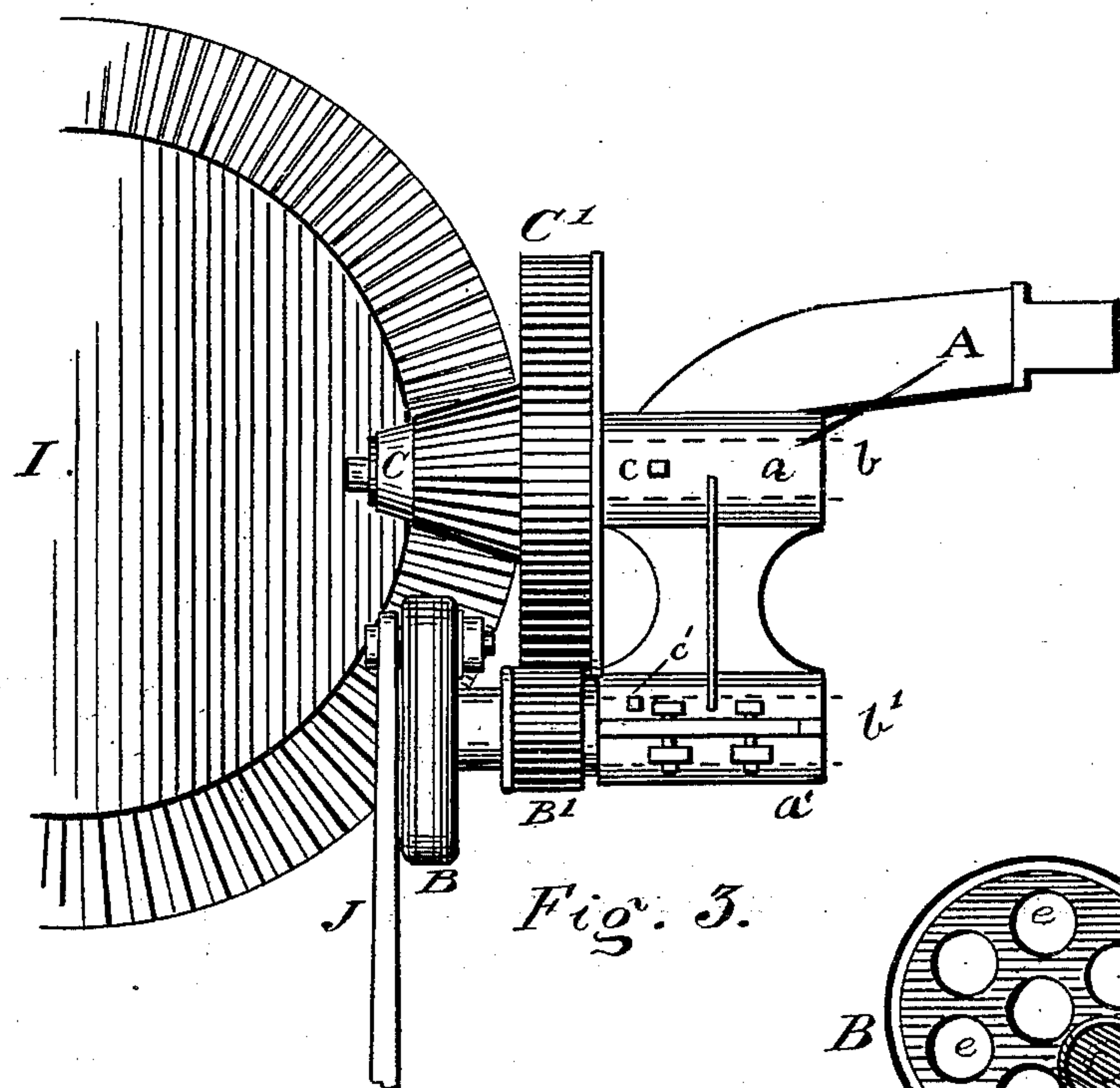


Fig. 3.

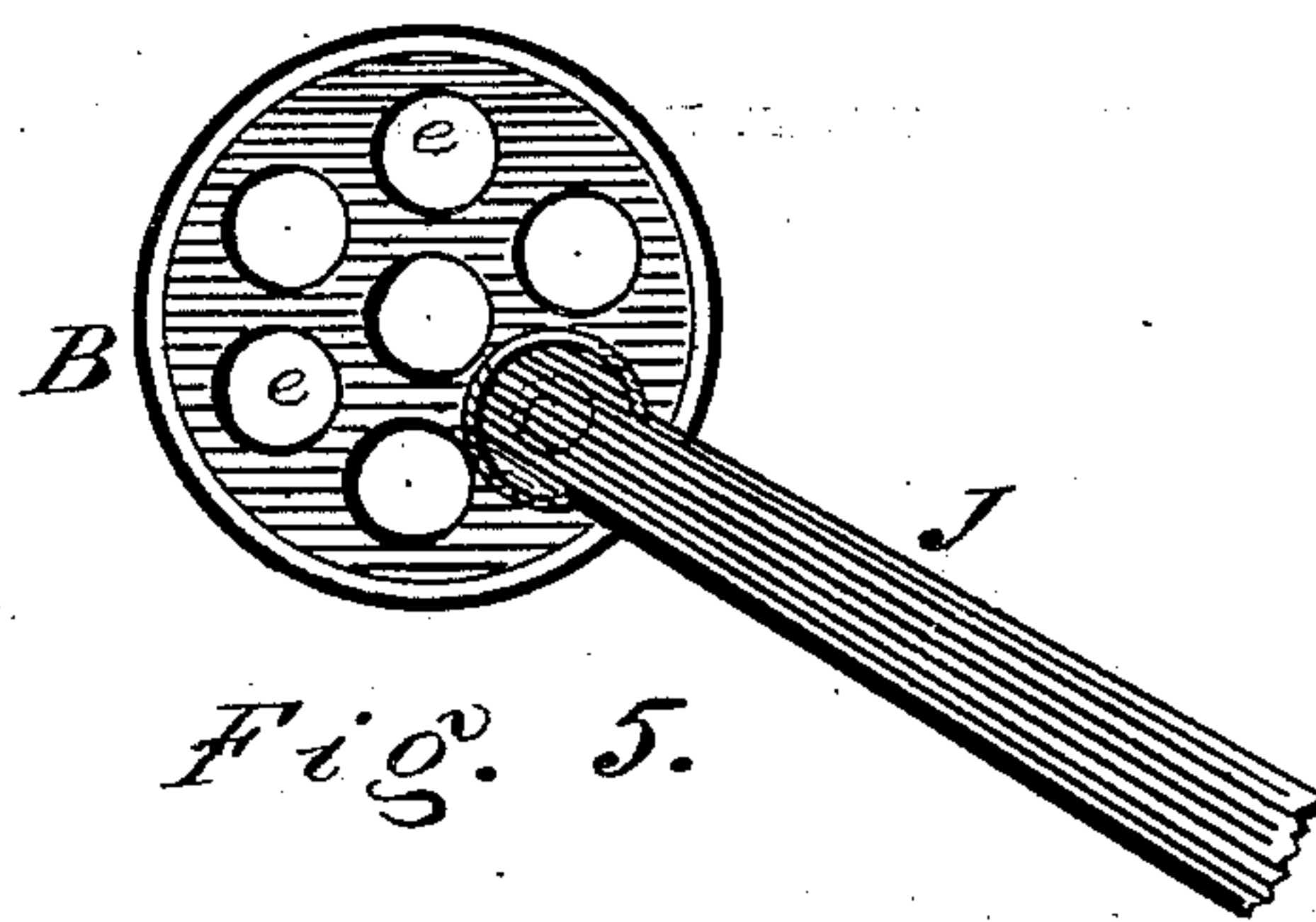


Fig. 5.

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# UNITED STATES PATENT OFFICE.

SAMUEL CRAWFORD, OF LONDON, ONTARIO, CANADA.

## HARVESTING-MACHINE.

SPECIFICATION forming part of Letters Patent No. 245,793, dated August 16, 1881.

Application filed September 1, 1880. (No model.) Patented in Canada June 22, 1880.

*To all whom it may concern:*

Be it known that I, SAMUEL CRAWFORD, a subject of the Queen of Great Britain, residing at London, in the county of Middlesex, and Province of Ontario, Canada, have invented certain new and useful Improvements in Harvesting-Machines, (for which I have received Letters Patent in Canada, No. 11,412, dated June 22, 1880;) 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 manufacture to which it appertains to make and use it.

My invention relates to certain new and useful improvements in harvesting-machines; and the invention consists in novel features of construction and combination and arrangement of parts, all as will be hereinafter fully described, and specifically pointed out in the claim.

Referring to the accompanying drawings, Figure 1 represents a top view or plan of my improved machine. Fig. 2 is a side elevation. Fig. 3 is an enlarged detail view of pitman-gear. Fig. 4 represents a side view of the tilting device. Fig. 5 is an enlarged detail view of pitman-crank wheel.

In the drawings, A represents a vertical bracket, provided at its upper and lower ends with hollow bearings *a a'* for the reception of the fixed shafts *b b'*, which are retained in position in said bearings by set-screws *c c'*. This bracket is brazed and held in position by being bolted to a downwardly-projecting lug, E, formed integral with the frame D, or can be made separately and bolted to the frame, as shown by bolts *i*, Fig. 1.

I represents a bevel-wheel keyed to the main axle S, and meshes with a bevel-pinion, C, which is cast in one piece with the spur-wheel C', and which revolves freely on the shaft *b*. Into the spur-wheel C' (shown more clearly in Fig. 3) meshes the spur-pinion B', cast in one piece with the pitman-crank wheel B, and which is mounted and revolves freely on the shaft *b'*. The pitman-crank wheel B is cast with a number of holes, *e*, in it to answer for new changes of boxing for pitman-rod J, which is cranked thereto.

By the above-described construction and arrangement of parts only one revolving shaft

is required for the gearing, that being the main axle S, and thus I am enabled to dispense with the boxing, boring, turning, and keying common to this class of machines, thereby greatly reducing the labor and material, and providing a cheap, simple, and substantial machine, and a convenient means of replacing any part that may be broken or worn out.

The bracket A, having the hollow bearings cast integral therewith, can be easily and readily applied to any of the various forms of reaping-machines.

The tilting device is constructed as follows: *g* is a casting attached to frame D, and which forms the sector for latch *f* on tilting lever F, which is mounted and revolves on the main axle S. This lever F is provided with the cog-rack G, which meshes into the clogged arc H, that is attached to the inner end of the tongue or pole, which swings on the pivot *h*, formed by extending the front bar of the frame D, and made into a bolt with nut and washer.

By lifting the lever-latch *f* and drawing the tilting lever forward or backward the table is tilted to any slope, the notches in the sector part catching the latch *f* and holding the lever in any desired position, the table being attached to the frame in the ordinary manner.

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

In a harvesting-machine, the combination, with the main axle S and bevel-wheel I, keyed thereon, of the bevel-pinion C and spur-wheel, cast in one piece, the spur-pinion B', and crank-wheel B, cast in one piece and having a surrounding recess between them, the shafts *b b'*, the vertical bracket A, provided with hollow bearings *a a'* at its upper and lower ends for the reception of said shafts, and the frame D, provided with the downwardly-projecting lug E, the several parts constructed and arranged relatively to each other substantially in the manner as and for the purpose herein shown and described.

SAMUEL CRAWFORD.

Witnesses:

WILLIAM WEBB,  
HENRY BEECH.