

(No Model.)

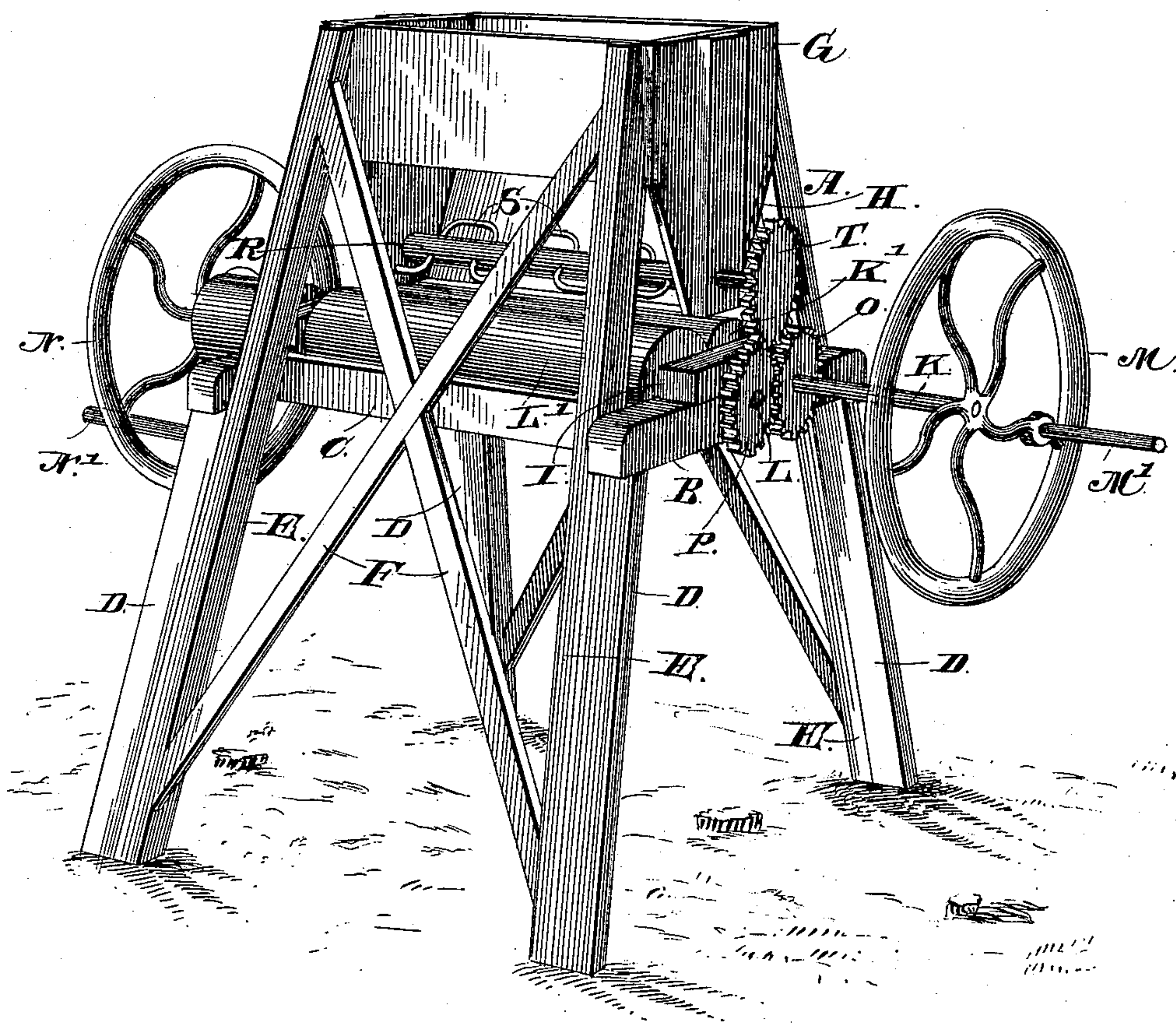
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J. A. J. GIBSON.
MACHINE FOR CRUSHING SEEDS.

No. 407,346.

Patented July 23, 1889.

Fig. 1.



Witnesses
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(No Model.)

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Fig. 2.

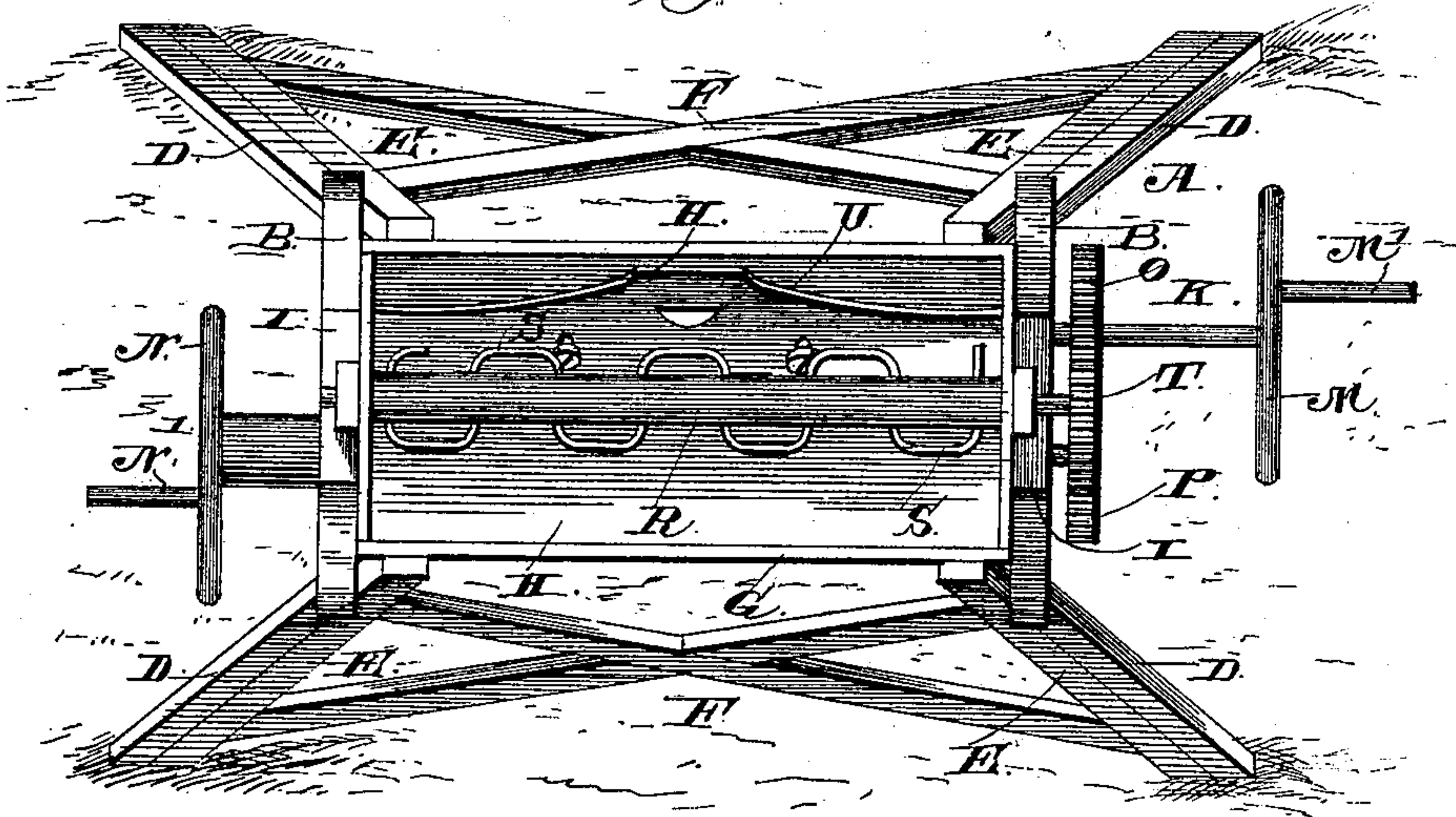
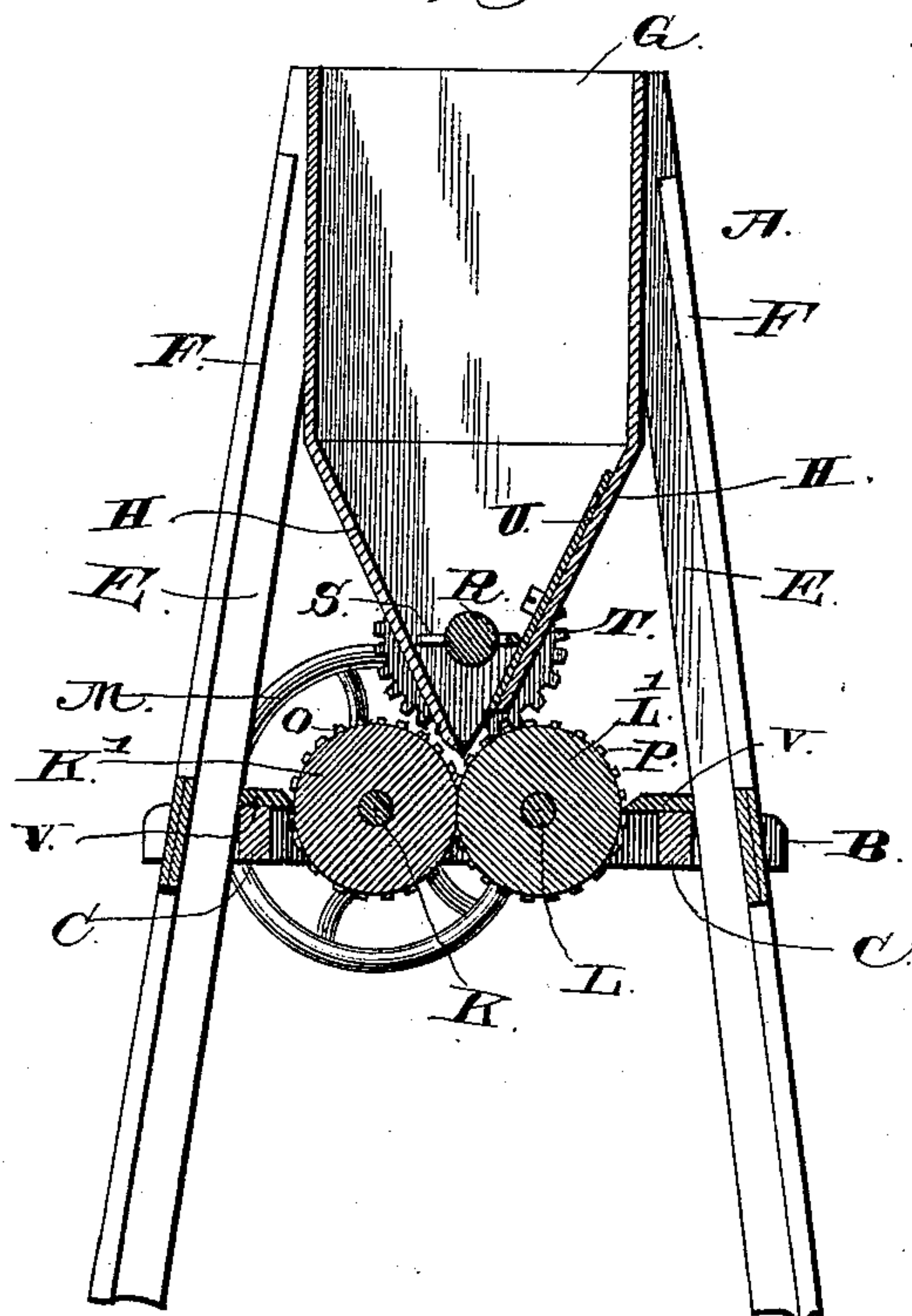


Fig. 3.



Witnesses

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UNITED STATES PATENT OFFICE.

JAMES ANDREW JACKSON GIBSON, OF CRAWFORD, ALABAMA.

MACHINE FOR CRUSHING SEEDS.

SPECIFICATION forming part of Letters Patent No. 407,346, dated July 23, 1889.

Application filed December 26, 1888. Serial No. 294,625. (No model.)

To all whom it may concern:

Be it known that I, JAMES ANDREW JACKSON GIBSON, a citizen of the United States, residing at Crawford, in the county of Russell and State of Alabama, have invented a new and useful Improvement in Machines for Crushing Seeds, of which the following is a specification.

My invention relates to an improvement in machines for crushing cotton-seeds; and it consists in the peculiar construction and combination of devices, that will be more fully set forth hereinafter, and particularly pointed out in the claim.

In the accompanying drawings, Figure 1 is a perspective view of a crusher for cotton-seeds embodying my improvements, a portion of the hopper being removed to disclose the agitator. Fig. 2 is a top plan view of the same. Fig. 3 is a vertical transverse sectional view of the same.

A represents a rectangular frame, comprising a pair of end beams B and a pair of side bars C, which connect the same. From each beam B depends a pair of downward-diverging supporting-legs D, the ends of said beams projecting beyond the outer sides of bars C.

E represents inclined corner-posts, which bear against the inner edges of the legs D and against the outer sides of the bars C, and are connected in pairs by crossed braces F.

G represents a hopper, which is secured between the upper ends of the posts E, and has its lower side boards H converging downward toward each other.

On the beams B are secured a pair of blocks I, in which are journaled a pair of shafts K L. A roller K' is secured to the shaft K, and a similar roller L' is secured to the shaft L, said rollers being arranged under the side boards of the hopper and in contact with each other, as shown. To one end of the shaft K is secured a fly-wheel M, that has a crank M', and to the opposite end of the shaft L is secured a fly-wheel N, that has a crank N'. The shaft K is further provided with a gear-wheel O, that engages a similar gear-wheel P, secured to the shaft L, and thereby the rollers are geared together and caused to rotate in opposite directions.

R represents a shaft, which is preferably made of a piece of metallic pipe, and is journaled in bearings in the end walls of the hopper near the lower side of the same. A wire or rod is bent in sinuous form and passed transversely through openings in the shaft R, and thereby forms radial open arms S, which project from opposite sides of the said shaft. The said shaft and the said arms S constitute an agitator which is adapted to revolve in the lower side of the hopper. Secured to the shaft R is a gear-wheel T, that engages the gear P, and thereby transmits rotation from the roller K' to the agitator when the machine is in operation.

On one side of the inclined bottom of the hopper is arranged a slide-board U, which is adapted to regulate the supply of cotton-seeds fed to the rollers.

V represents a pair of scrapers, which are secured on the beams B and bear against the outer sides of the rollers, the function of the said scrapers being to prevent cotton-seeds from adhering to the rollers.

The operation of my invention will be very readily understood. The cotton-seeds are poured into the hopper, and rotary motion is imparted to the shafts carrying the rollers by turning the fly-wheels either by hand, steam, or horse power. This causes the opposing sides of the rollers to rotate in the same direction and the agitator to rotate in the bottom of the hopper and prevent the seeds from lodging therein and causing the seeds to be fed evenly between the rollers. As the seeds pass between the rollers they are crushed in such manner as to effectually destroy their germs and render them incapable of sprouting. Cotton-seeds thus crushed and with the germs destroyed are exceedingly valuable as a fertilizer, and much more so than seeds which have only been partially crushed and in which the germs have not been killed.

Having thus described my invention, I claim—

In a machine for crushing cotton-seed, the herein-described frame structure, comprising a horizontal rectangular frame, legs depending from the ends of the same, inclined braces secured to the inner sides of the legs and ex-

tending upwardly above the horizontal rectangular frame, and crossed braces connecting said inclined braces, said frame structure serving to support the crushing-rolls, which
5 are mounted upon the rectangular horizontal frame, and a hopper which is mounted between the upward extensions of the inclined braces, substantially as set forth.

In testimony that I claim the foregoing as my own I have hereto affixed my signature in presence of two witnesses.

JAMES ANDREW JACKSON GIBSON.

Witnesses:

H. T. BENTON,
W. E. CHADWICK.