

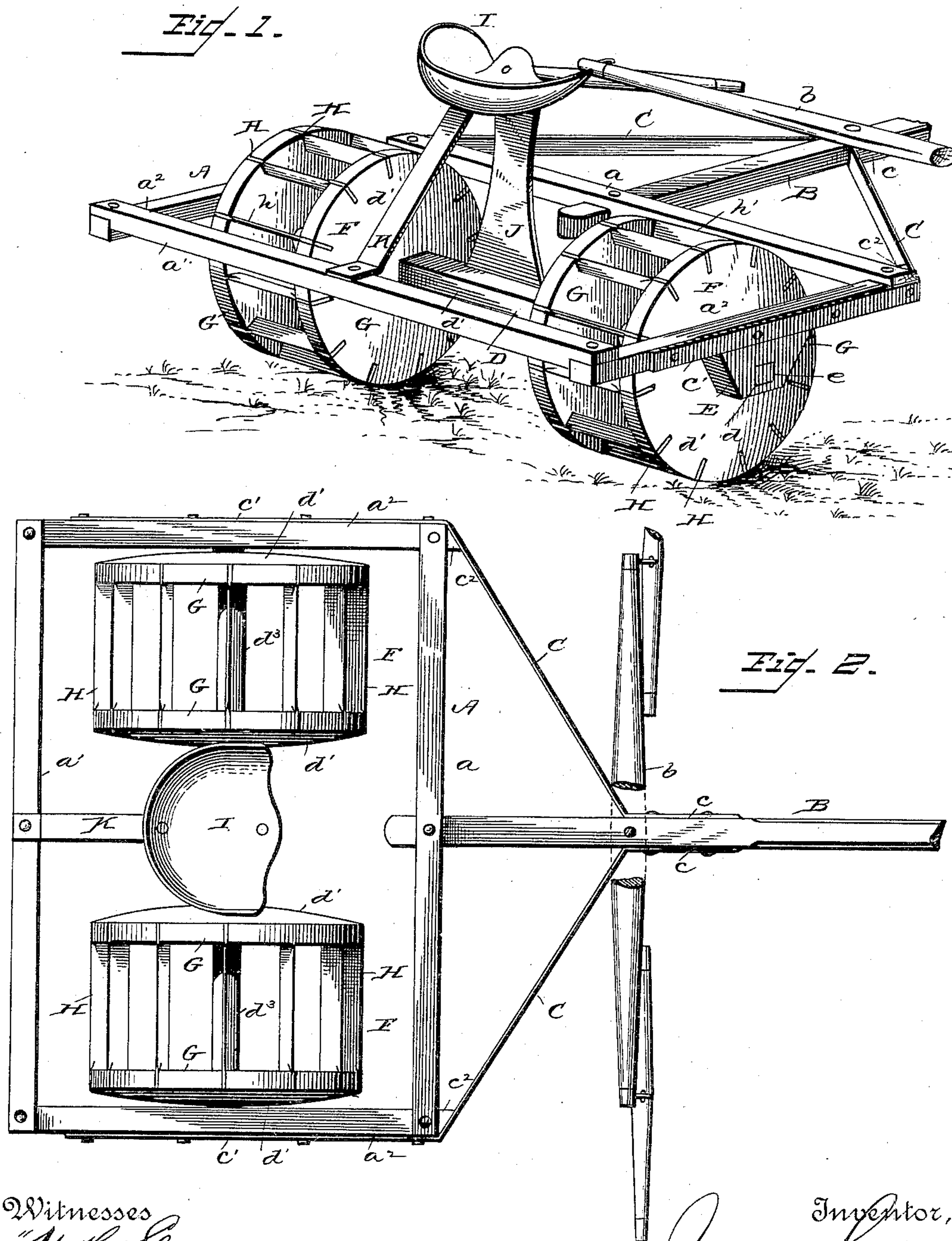
(No Model.)

2 Sheets—Sheet 1.

J. LESTER.  
COTTON STALK CRUSHER.

No. 398,413.

Patented Feb. 26, 1889.



Witnesses

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Inventor,

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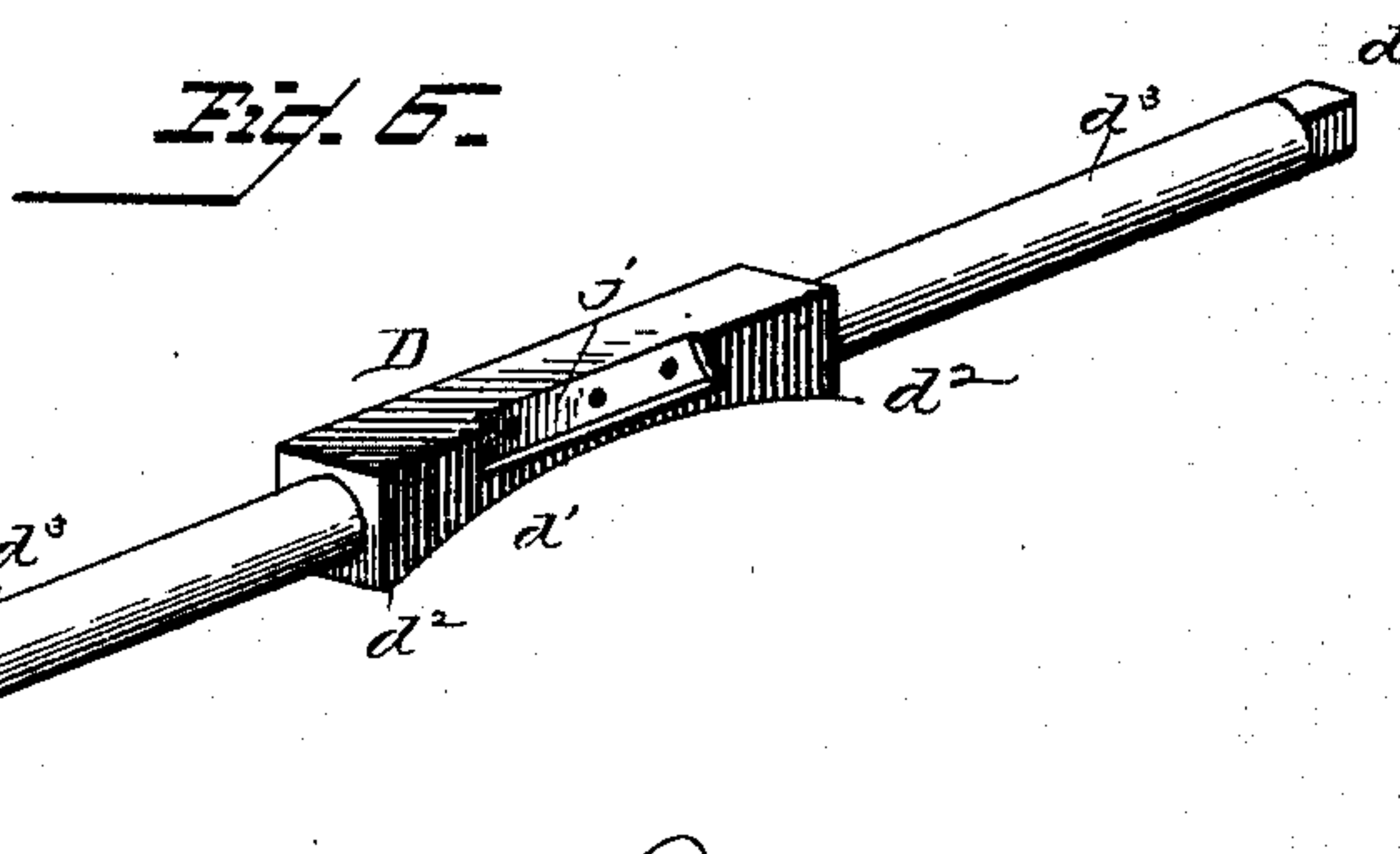
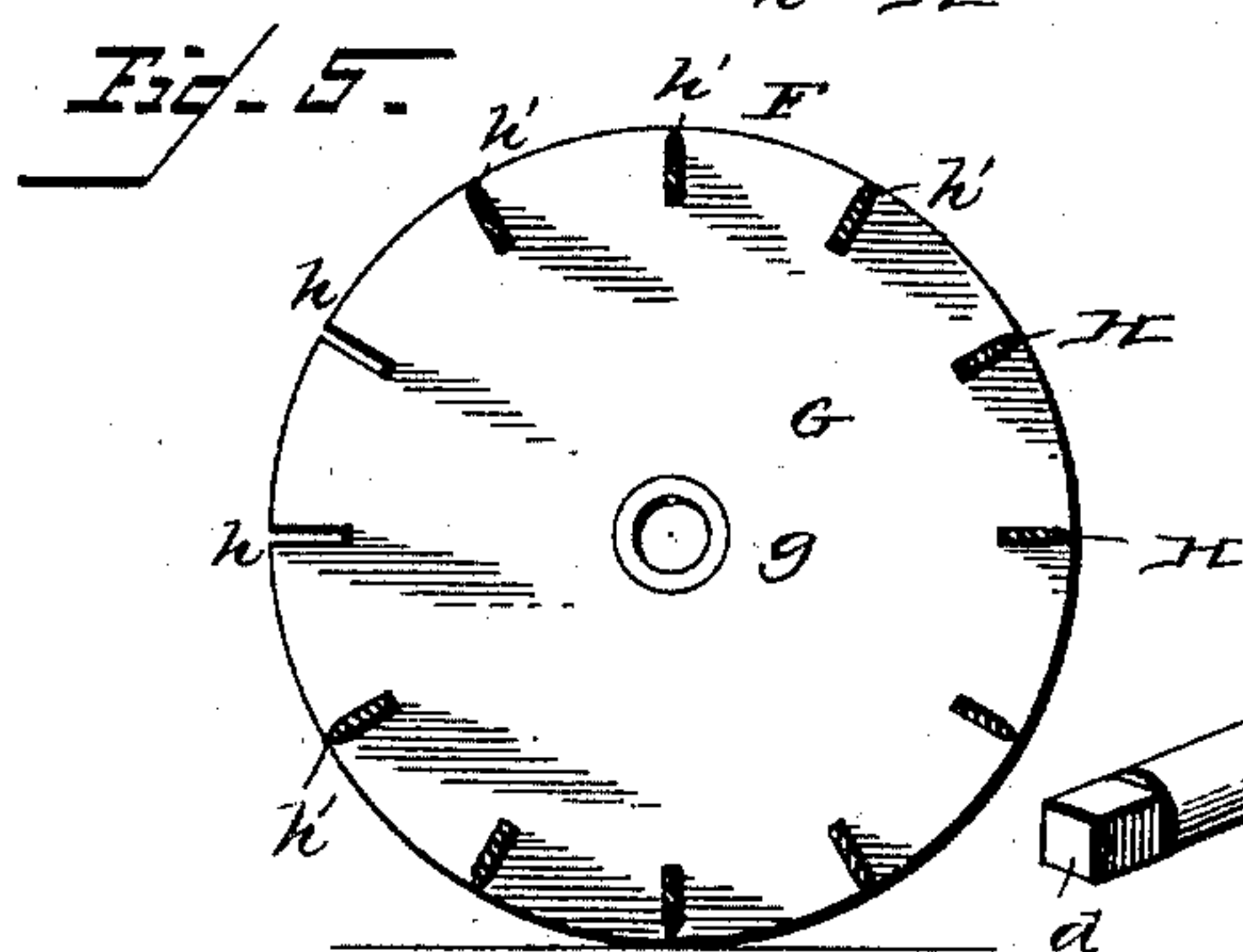
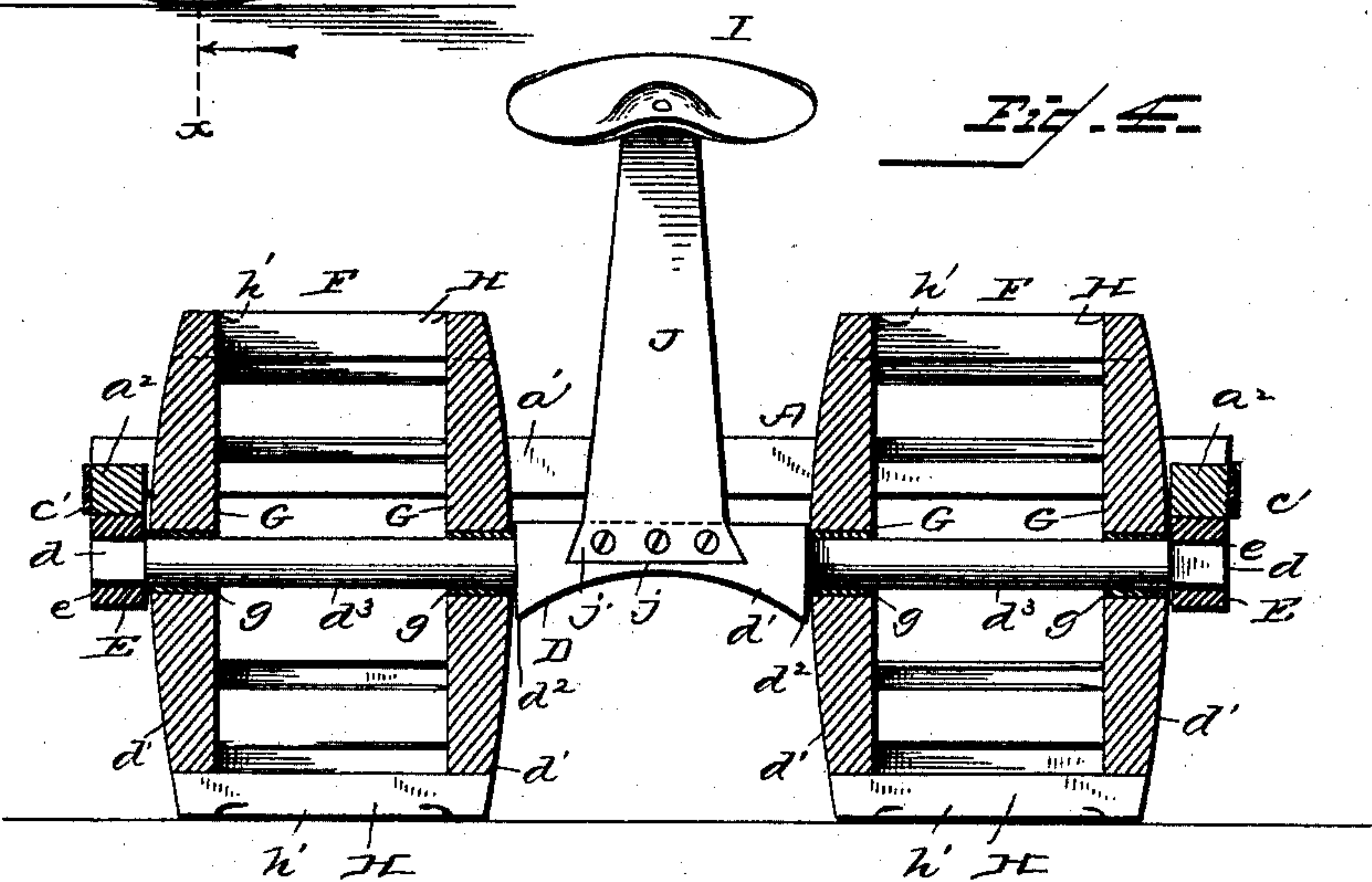
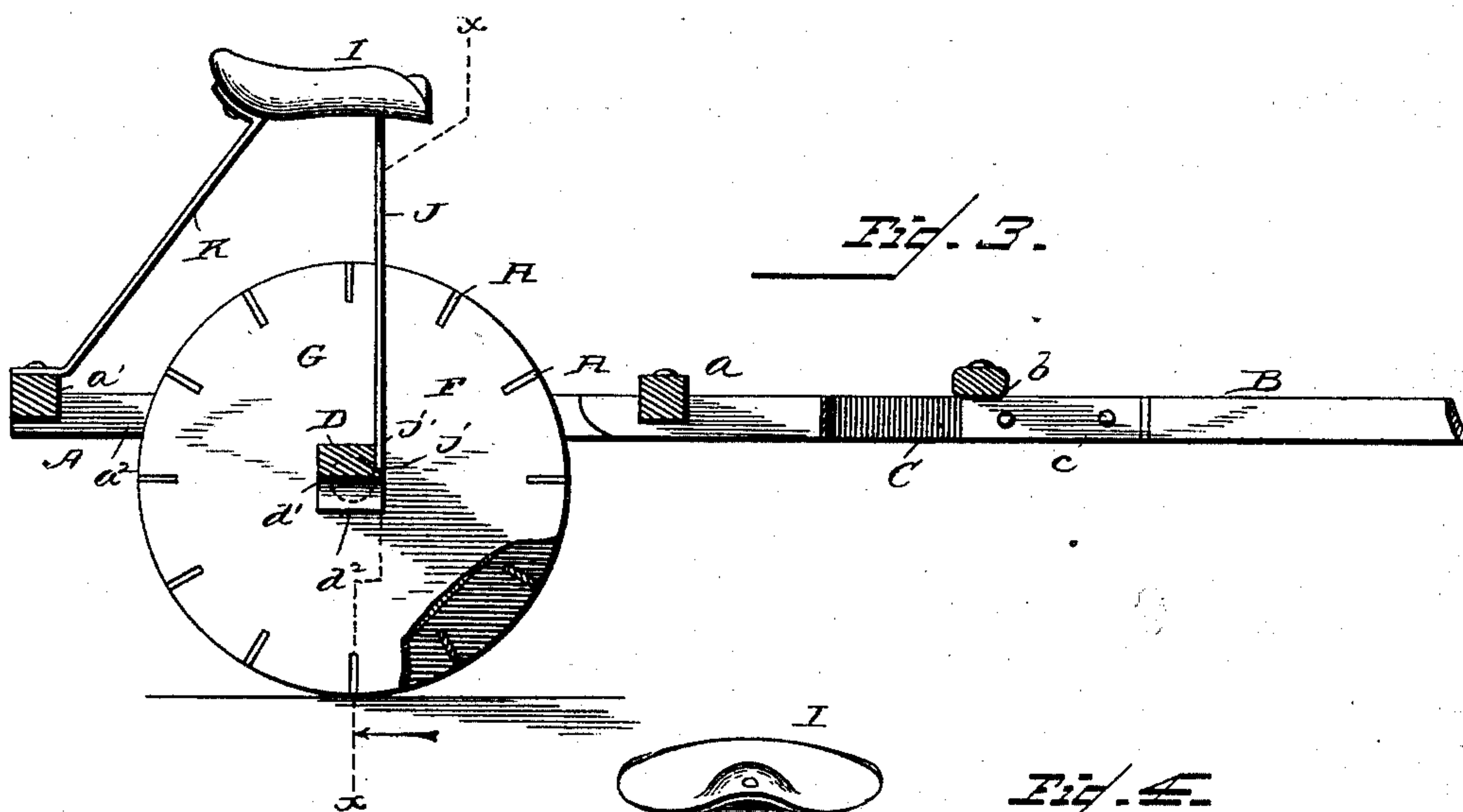
By his Attorney

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James Lester,

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James Lester,  
By his Attorney  
J. R. Little,



# UNITED STATES PATENT OFFICE.

JAMES LESTER, OF PROSPERITY, SOUTH CAROLINA, ASSIGNOR OF ONE-HALF  
TO HANDSON C. MOSELEY, OF SAME PLACE.

## COTTON-STALK CRUSHER.

SPECIFICATION forming part of Letters Patent No. 398,413, dated February 26, 1889.

Application filed September 3, 1888. Serial No. 284,424. (No model.)

*To all whom it may concern:*

Be it known that I, JAMES LESTER, a citizen of the United States, residing at Prosperity, in the county of Newberry and State of South Carolina, have invented certain new and useful Improvements in Cotton-Stalk Crushers; 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.

This invention relates to machines for crushing cotton-stalks; and its object is to provide an improved machine of this character possessing advantages in point of simplicity and inexpensiveness in construction and durability and general efficiency in operation.

In the annexed drawings, Figure 1 is a perspective view of a machine embodying my invention. Fig. 2 is a top or plan view of the same. Fig. 3 is a central longitudinal sectional view. Fig. 4 is a vertical transverse sectional view on the line  $xx$ , Fig. 3. Fig. 5 is a sectional view taken through one of the wheels. Fig. 6 is a detail perspective view of the axle.

The same letters of reference indicate corresponding parts in all the figures.

Referring to the drawings, A designates the frame of the machine, which is preferably rectangular and comprises the transverse front and rear beams,  $a$   $a'$ , respectively, and the longitudinal side beams,  $a^2$   $a^2$ . To the beam  $a$  is secured the tongue or pole B, carrying the doubletree  $b$  or other suitable devices. The pole is secured in position by means of braces formed preferably of metallic plates C, having a straight front end portion,  $c$ , secured against the side of the pole, as shown. From their front securing portion these plates diverge rearwardly and extend along the outer faces of the side beams,  $a^2$   $a^2$ , as shown at  $c'$ , nearly to the rear end of the same and are secured thereto. The front ends of the side beams preferably project beyond the beam  $a$  and have their front ends,  $c^2$ , beveled, as shown, to accommodate the angle of the plates C and brace the same. These plates preferably correspond in width to the side beams, and by reason of the construction and ar-

range ment just described, involving the extension of the plates nearly to the ends of the side beams, the whole frame is securely braced and a simple and more durable machine provided.

D designates the axle, which is secured in suitable brackets, E, depending from the under side of the side beams. These brackets are preferably provided with a rectangular eye or opening,  $e$ , in which are received the corresponding rectangular ends,  $d$ , of the axle. The central portion,  $d'$ , of the axle is enlarged, as shown, thus forming two shoulders,  $d^2$   $d^2$ , between which and their respective side beams are mounted the wheels or crushers F. The portions of the axle between the shoulders  $d^2$  and the rectangular ends  $b$  are cylindrical, as shown at  $d^3$ , and upon these cylindrical portions the wheels revolve.

Each wheel is formed of two disks, G G, having cylindrical eyes or bearings  $g$  for the accommodation of the axle. These disks are some distance apart, (in practice about two feet,) and are connected by the transverse knives H. The latter are preferably formed of steel, while the disks may be constructed of iron. The outer faces,  $d'$ , of the disks are preferably concave, so that they bear at the central eye or bearing portion against the shoulders  $a^2$  and inner face of the brackets E.

The transverse knives H are formed of blades mounted at the periphery of the disks, and having their ends preferably seated and secured in transverse grooves or recesses  $h$  in the periphery of the disks. The knives are approximately equidistant, and are radially disposed with relation to the center or bearing of the wheel. They do not project beyond the periphery of the wheel, and have their cutting-edge  $h'$  about on the plane of the periphery thereof. By this improved arrangement of the knives they have a direct action upon the stalks as the wheels revolve during the movement of the machine, and thus more efficiently operate to properly crush the same.

I designates the driver's seat, which is relatively located between the wheels, and is supported at its front by an upright, J, preferably formed of a plate and mounted upon the central enlarged portion,  $d'$ , of the axle. The



front face of the portion  $d'$  may be provided with a dovetailed recess,  $j$ , in which is seated and secured the corresponding dovetailed lower end,  $j'$ , of the plate or standard J. A more secure attachment is formed by this construction, and the seat is retained against vertical or lateral displacement. Upon the rear beam,  $a'$ , is provided an upwardly and forwardly inclined standard, K, which is secured to the rear portion of the seat. By means of this arrangement of standards K and J it will be observed that the axle is firmly locked to the frame, and that any longitudinal play or movement of the axle is entirely obviated, the fact of the front standard being broadened in the form of a plate and secured in the dovetailed manner just described contributing largely to this result, as will be obvious.

I do not wish to be understood as limiting myself to the exact construction and arrangement herein shown and specified, but reserve the right to all such modifications as properly fall within the spirit and scope of my invention and claims.

What I claim as my invention, and desire to secure by Letters Patent, is—

1. The combination, with the frame comprising the transverse rear beam, and with the axle fixed or locked against rotary movement and provided with a dovetailed recess in the front face of its central portion, of the upright front standard formed by a plate having a dovetailed lower end corresponding to said recess, the rear standard secured upon the rear beam and projecting upwardly and forwardly, and the seat mounted upon and connecting said standards, substantially as and for the purpose set forth.

2. The combination, with the frame comprising the side beams, and the axle having an enlarged central portion forming shoulders and having its ends rigidly connected to the side beams, the portion of the axle between said shoulders and fixed ends being cylindrical, of the wheels mounted upon said cylindrical bearing portion and comprising transverse blades or knives connecting the end bearing-disks, the outer face of the latter be-

ing convexed, substantially as and for the purpose set forth.

3. A cotton-stalk crusher comprising the frame having the front and rear beams and side beams, the tongue or pole secured to the front beam, and rearwardly-divergent braces secured to the pole and side beams, the transverse stationary axle comprising a central portion forming shoulders  $d^2$ , the cylindrical portion  $d^3$ , and having its ends fixed in brackets upon the side beams, the wheels comprising disks mounted upon said cylindrical portions and connected by radially-disposed blades or knives having their cutting-edge about on the plane of the periphery of the wheel, and standards projecting from the central portion of the axle and rear beam of the frame and supporting the seat, substantially as and for the purpose set forth.

4. The herein-described cotton-stalk crusher, comprising a rectangular frame, a tongue projecting centrally from the center of the front beam thereof and braced by rods connecting it with the frame, an axle rigidly mounted upon the latter and provided with a central enlarged portion forming shoulders and with cylindrical end portions, wheels loosely mounted upon the cylindrical portions, consisting of two disks having convex outer faces connected by radially-disposed knives, the transverse cutting-edge of the latter being about on a plane with the periphery of the disks, and a seat mounted upon standards, the front one of which being provided with a dovetailed lower end adapted to be received by a corresponding recess in the central enlarged portion of the axle, while the latter one is connected with the rear beam of the frame, said standards being adapted to brace the axle, all arranged and adapted to operate substantially as and for the purpose set forth.

In testimony whereof I affix my signature in presence of two witnesses.

JAMES LESTER.

Witnesses:

JOS. H. HUNTER,  
GEO. S. MOWER.