(No Model.) 4 Sheets—Sheet 1.

G. W. WELLER.

ROCK CRUSHING MACHINE.

No. 485,517. Patented Nov. 1, 1892.

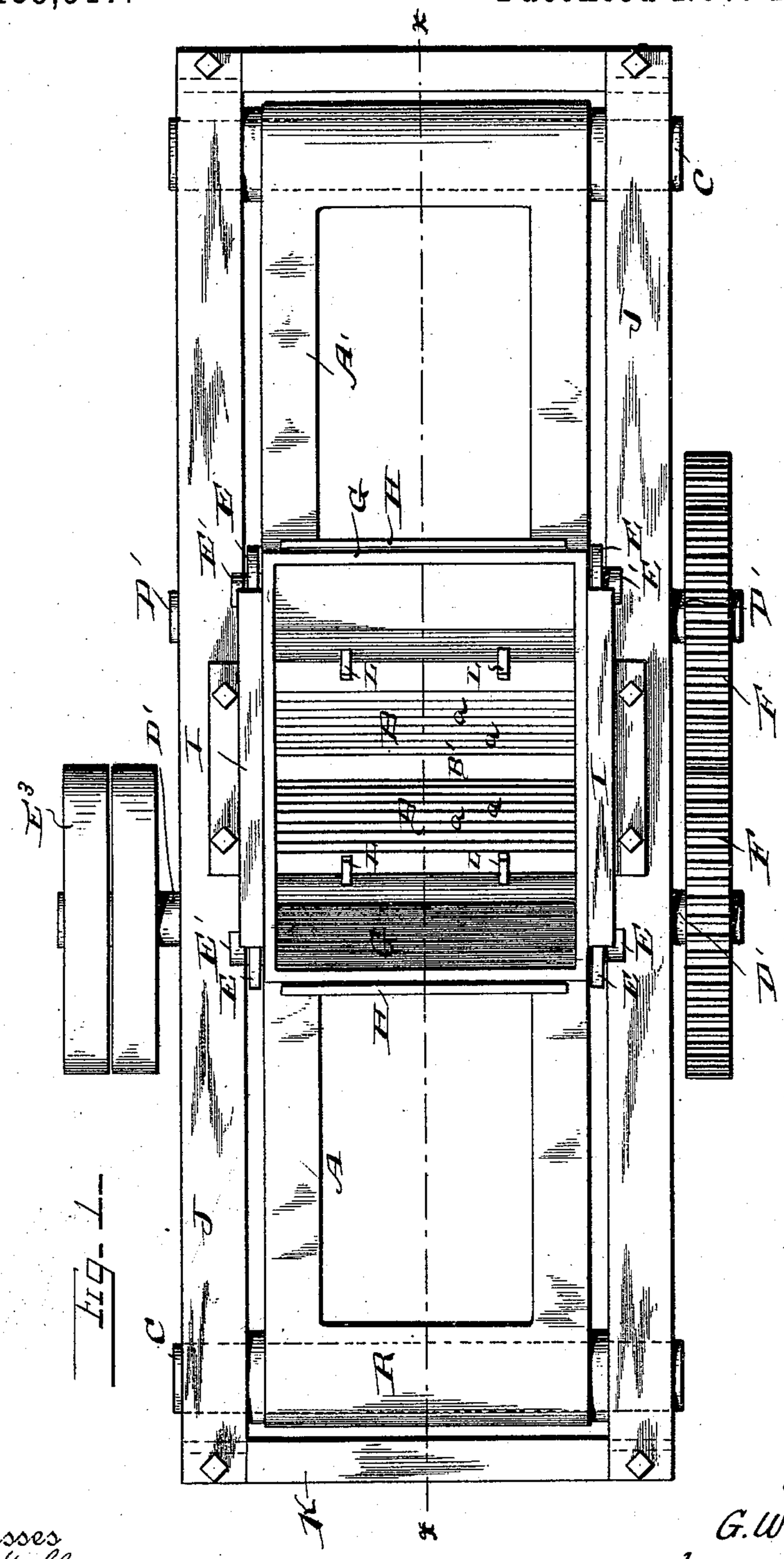

Fig. 1.

Witnesses
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Inventor
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by E. W. Anderson
his Attorney

(No Model.) 4 Sheets—Sheet 2.

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No. 485,517. Patented Nov. 1, 1892.

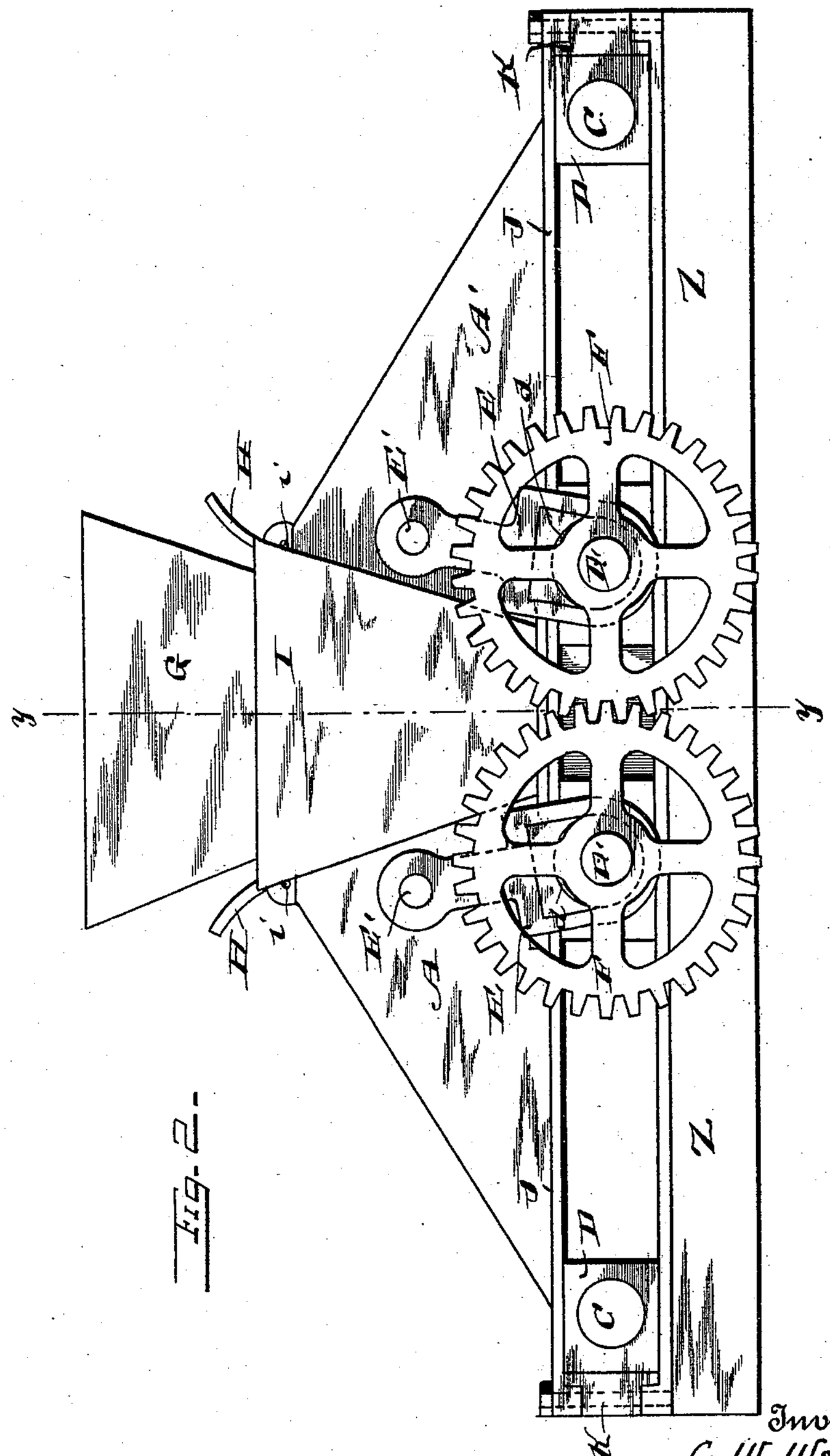

Fig. 2.

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(No Model.) 4 Sheets—Sheet 3.

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ROCK CRUSHING MACHINE.

No. 485,517. Patented Nov. 1, 1892.

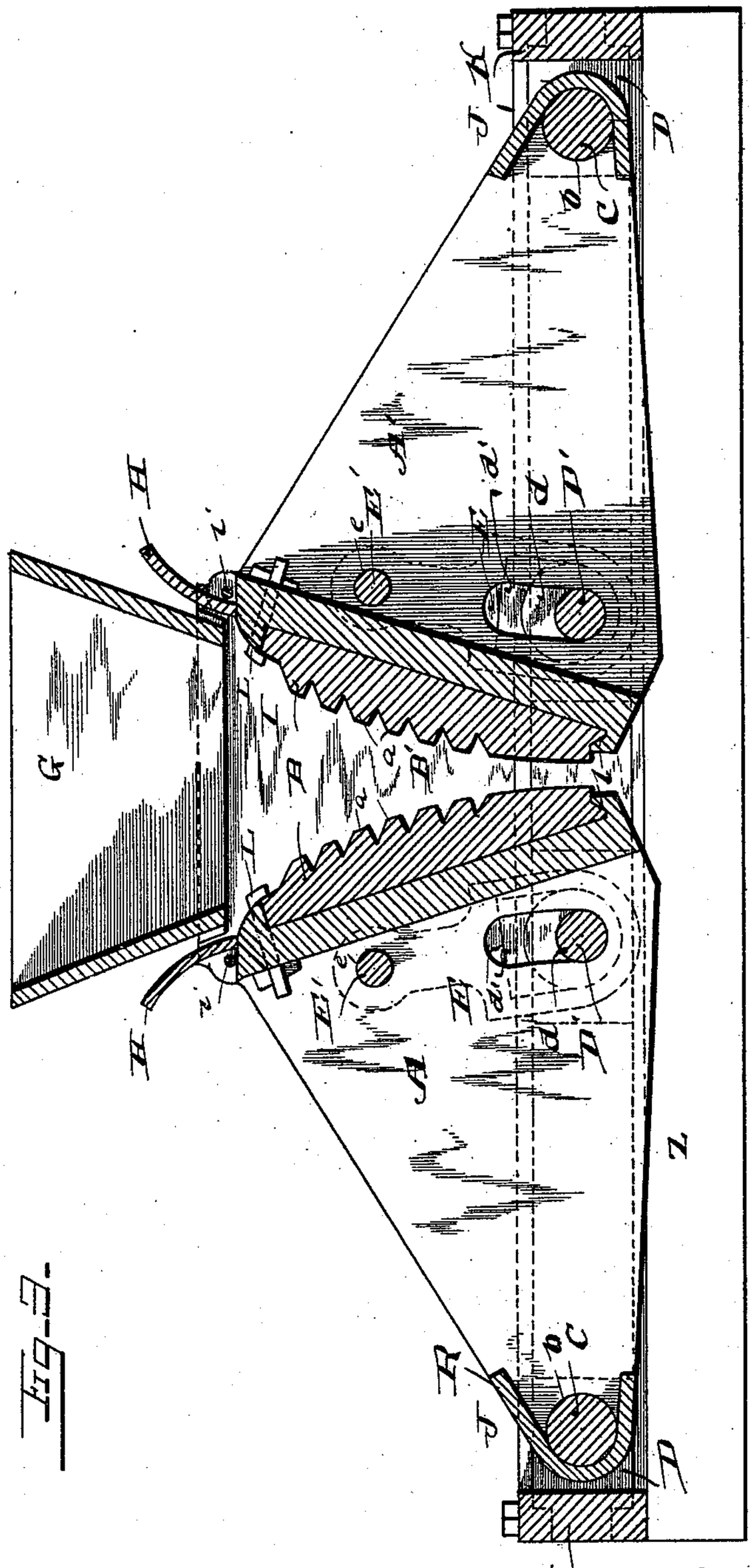

Fig. 3.

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(No Model.) 4 Sheets—Sheet 4.

G. W. WELLER.

ROCK CRUSHING MACHINE.

No. 485,517. Patented Nov. 1, 1892.

Fig. 4.

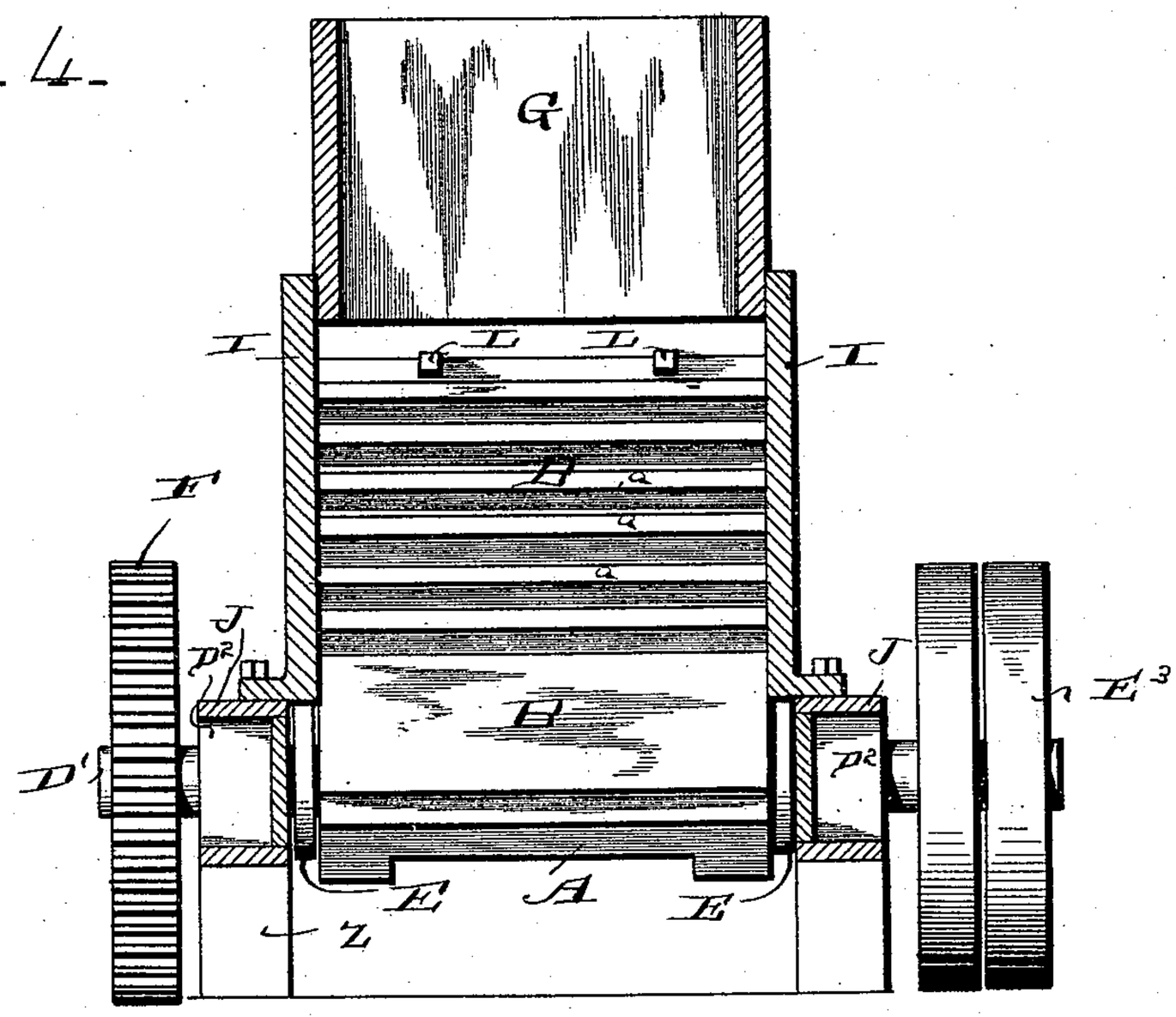


Fig. 5.

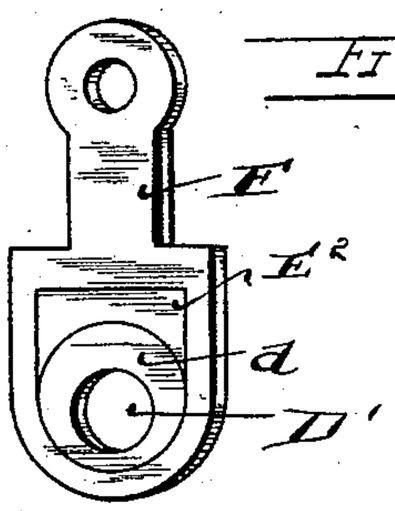


Fig. 6.

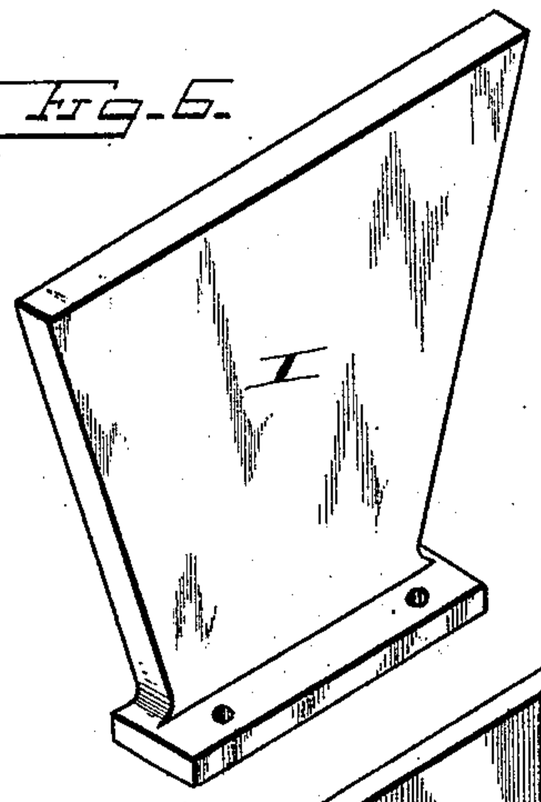
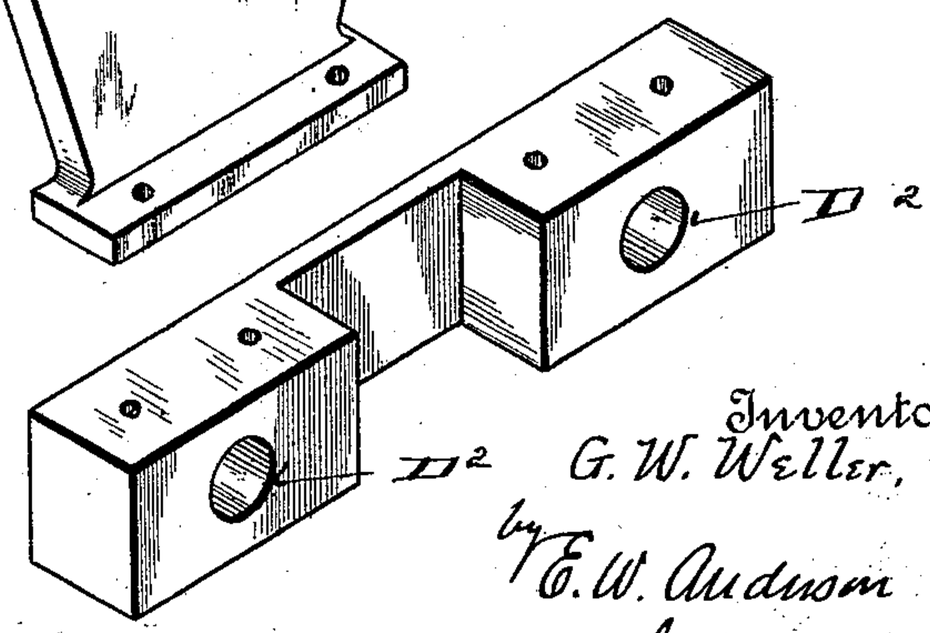


Fig. 7.



Witnesses
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Philip C. Wasi.

Inventor
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by E. W. Anderson
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UNITED STATES PATENT OFFICE.

GILES WALTON WELLER, OF BAKER CITY, OREGON.

ROCK-CRUSHING MACHINE.

SPECIFICATION forming part of Letters Patent No. 485,517, dated November 1, 1892.

Application filed April 16, 1892. Serial No. 429,457. (No model.)

To all whom it may concern:

Be it known that I, GILES WALTON WELLER, a citizen of the United States, and a resident of Baker City, in the county of Baker and State of Oregon, have invented certain new and useful Improvements in Rock-Crushing Machines; and I do declare the following to be a full, clear, and exact description of the invention, such as will enable others skilled in the art to which it appertains to make and use the same, reference being had to the accompanying drawings, and to letters of reference marked thereon, which form a part of this specification.

Figure 1 of the drawings is a top plan view. Fig. 2 is a side elevation. Fig. 3 is a section on line *x x*, Fig. 1. Fig. 4 is a section on line *y y*, Fig. 2. Fig. 5 is a perspective view of the link. Fig. 6 is a perspective of the end plates. Fig. 7 is a perspective view of the bearings.

This invention has relation to certain improvements in rock-crushing machines; and it consists in the novel construction and combination of parts, as hereinafter specified.

In the accompanying drawings the letters A A′ designate the crusher-jaws, carrying each on its meeting end a plate B, having its face transversely corrugated to form the saw-tooth-shaped crushing-ribs *a*, the two plates being inclined to each other in the manner shown and forming a V-shaped chamber B′ between them. The jaws are of general triangular form, and at their rear apices or ends are each formed with bearings *b b*, working on a pin or shaft C, having bearings in blocks D in the frame, said jaws being thereby capable of a vertical oscillating movement. Said jaws are hollow and are provided with the curved interior braces R at the rear. The plates B are curved on a radius from the pin or shaft C.

D′ D′ are transverse shafts, which extend in parallel position across the lower central portion of the machine and are provided with bearings at each side in the blocks D^2 D^2, fast to the bed-pieces. Said shafts pass through curved slots *d′* in the lower forward portions of the jaws, said slots permitting the oscillating movement of the said jaws, as hereinafter described. *d d* are eccentrics carried by the said shaft and which actuate links E E. Said links at their upper ends have bearings on the shafts E′ E′, which extend transversely through the upper portions of the jaws. At their lower ends the said links are provided with bearing-blocks E^2, in which work the eccentrics *d*. On one end of one of the shafts D′ are the driving-pulleys E^3 and at the other end is a gear-wheel F, which meshes with a similar wheel on the other of said shafts. It will be seen that when said shafts are actuated the jaws will be given a vertical oscillating movement, which will cause the crusher-plates to come toward each other as they come down, exerting a powerful action on the rocks fed between them from the hopper G. Said hopper is supported over the forward upper corner portions of the jaws between the curved guard-plates H H, secured to the jaws.

I I are end plates, which form the sides of the crushing-chamber B′ and to which the hopper is secured. These plates are bolted securely at their lower ends to the side plates J J of the frame and at their upper portions extend to the lower portion of the hopper. Said plates I I are connected by the bolts *i i*.

The side plates J J of the frame are flanged at their ends and are let into the end pieces K K, being securely bolted, so that the frame is prevented from spreading.

The crusher-plates B are removably secured to the jaws by means of the shouldered clamps L at their upper ends, the lower edges being secured in recesses *l* in the jaws. The entire machine is supported upon the bed-frame Z.

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

1. In a rock-crushing machine, the combination, with the frame having the bearing-blocks D D at each end thereof, of the triangular jaws A A, pivoted at their rear angles in said blocks, the curved slots in the lower forward portions of said jaws, the transverse shafts having bearings in the frame and passing through said slots, the eccentrics on said shafts, the links connected to the jaws at their upper ends and receiving said eccentrics in bearings at their lower ends, the crushing-plates on said jaws, and the driving-gear, substantially as specified.

2. In a rock-crushing machine, the combination, with the pivoted oscillating jaws, their crushing-plates, and driving mechanism, of the side plates I I, secured to the frame, the hop-

per secured to said side plates, and the guard-plates H H, secured to the upper portions of the jaws, substantially as specified.

3. In a rock-crushing machine, the combination of the frame, the bearing-blocks D D, rigidly held in the end portions of said frame, the shafts C, having bearings in said block, the triangular jaws working on said shafts, and the inclined transversely-corrugated crusher-plates secured to the forward portions of said jaws, said plates being curved on a radius from the shafts C, of the shafts D′ D′, their driving-gear, the eccentrics on said shafts, the links connected to said jaws, and bearings in said link which receive said eccentrics, substantially as specified.

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

GILES WALTON WELLER.

Witnesses:

J. M. BAKER,

P. V. NEBERGALL.