

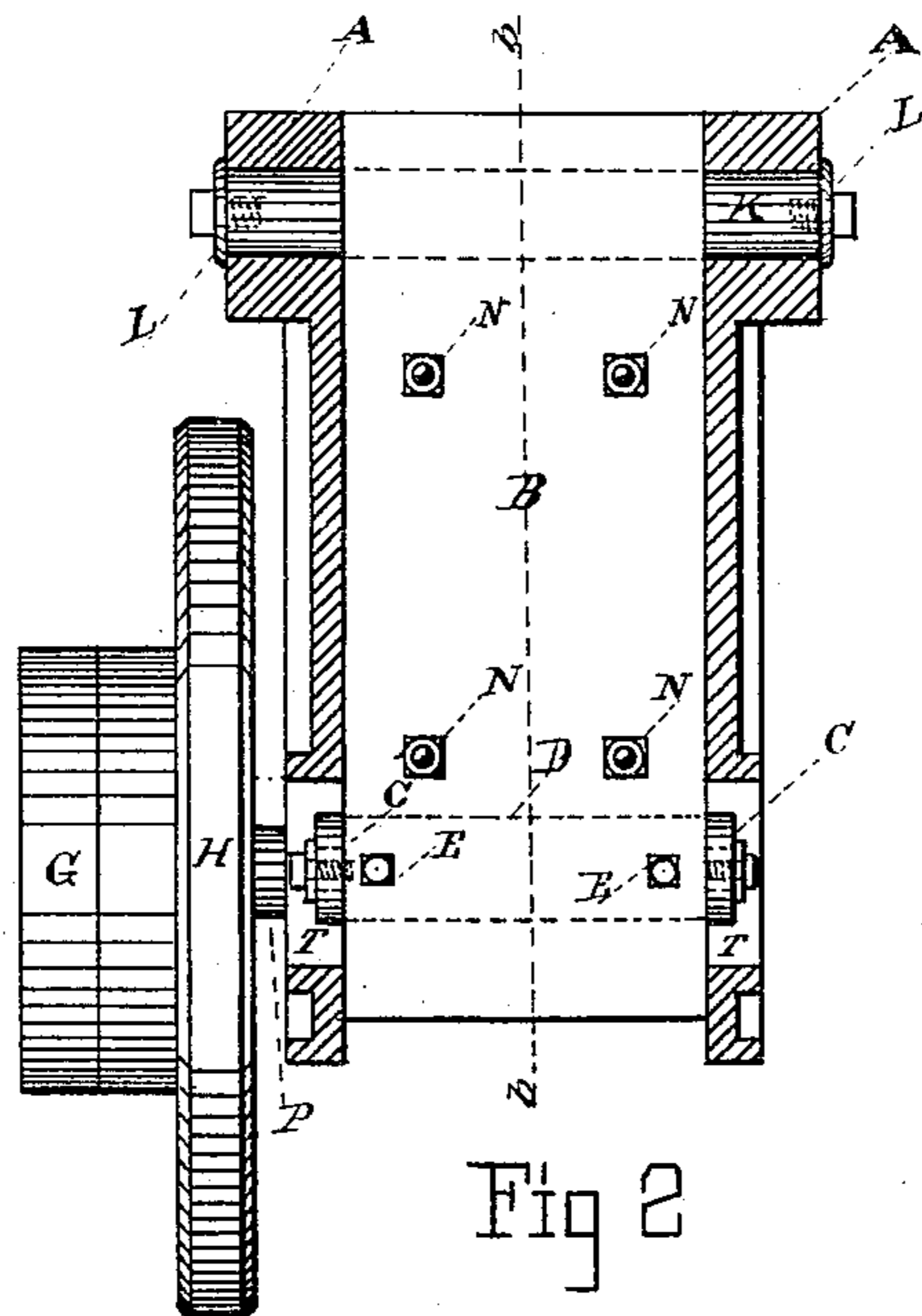
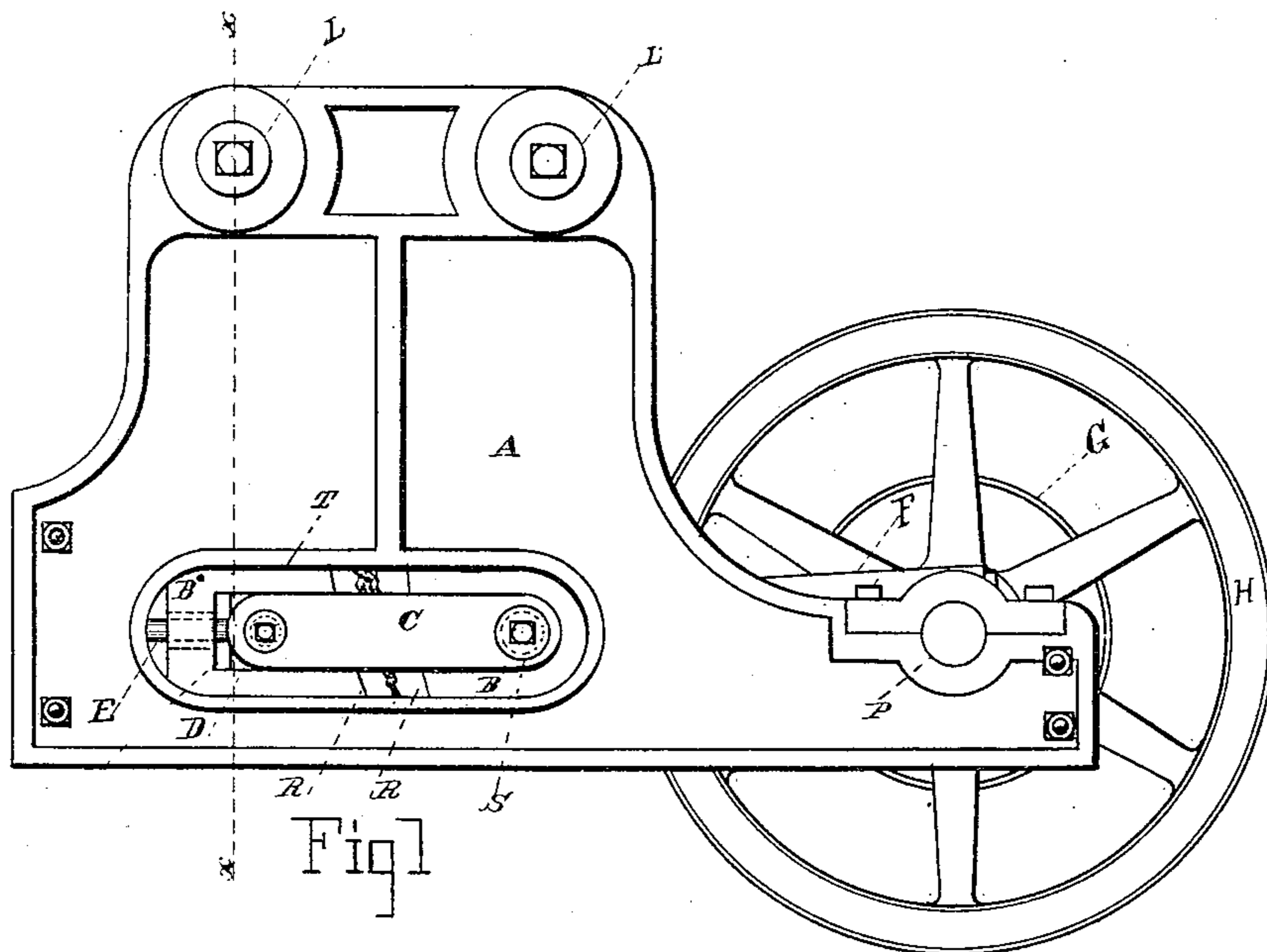
(No Model.)

3 Sheets—Sheet 1.

A. HIGLEY.  
CRUSHING MACHINE.

No. 329,553.

Patented Nov. 3, 1885.



Attest  
*John F. Wisk*  
*J. E. Hume*

Inventor  
 *Aaron Higley*  
per  *Frank Higley*  
attorney.

(No Model.)

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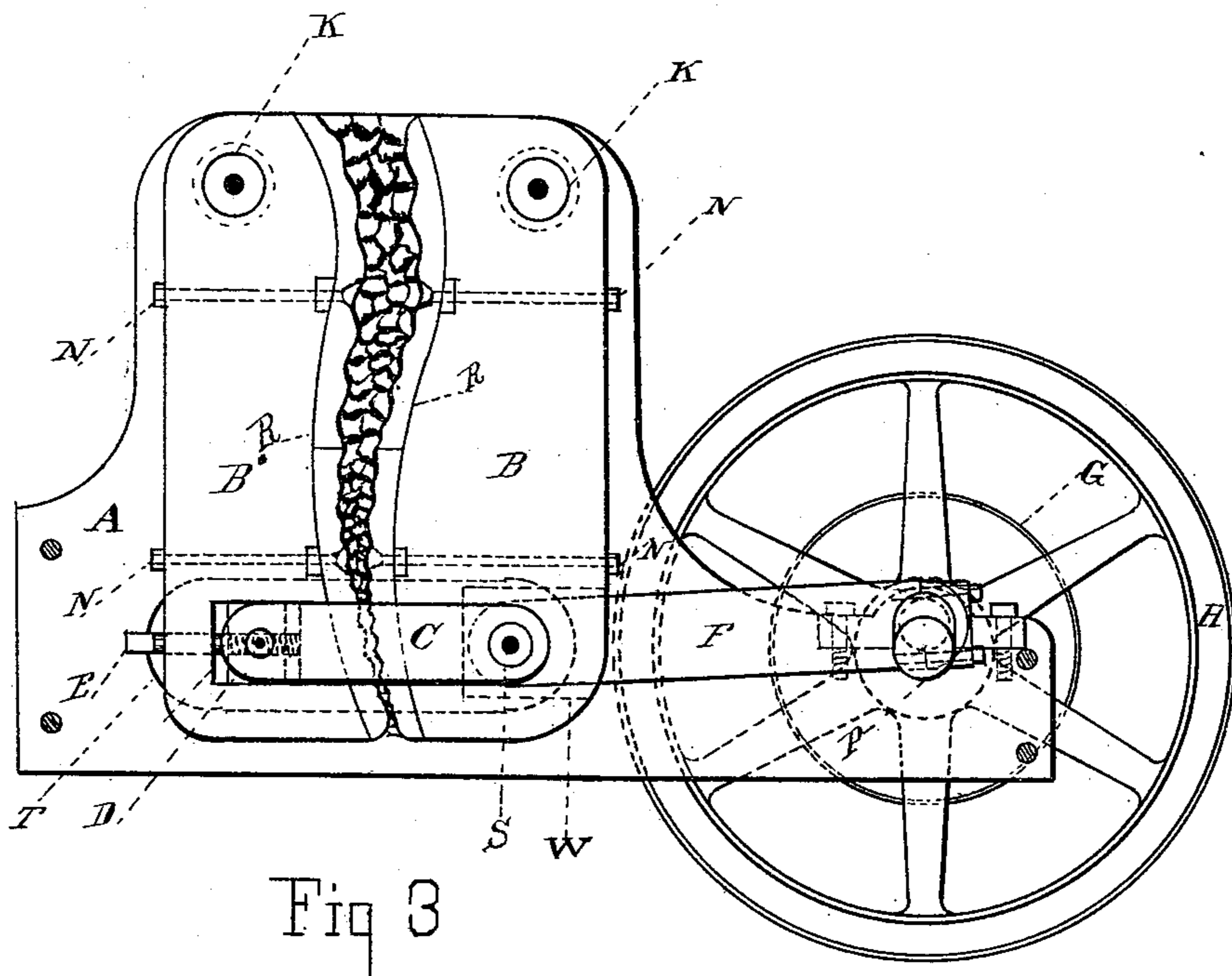


Fig 3

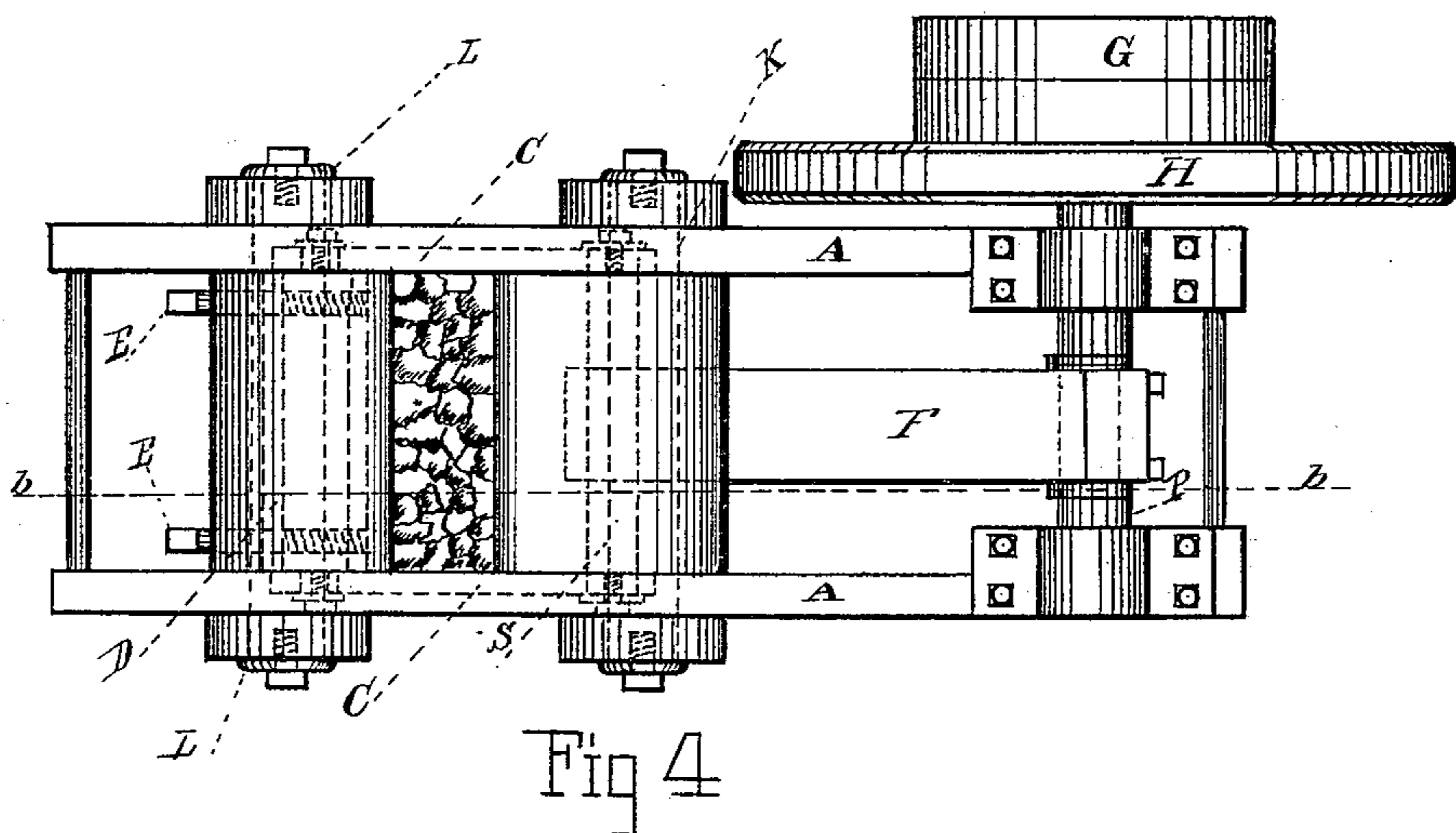


Fig 4

Attest  
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*per Frank Higley*  
*attorney*

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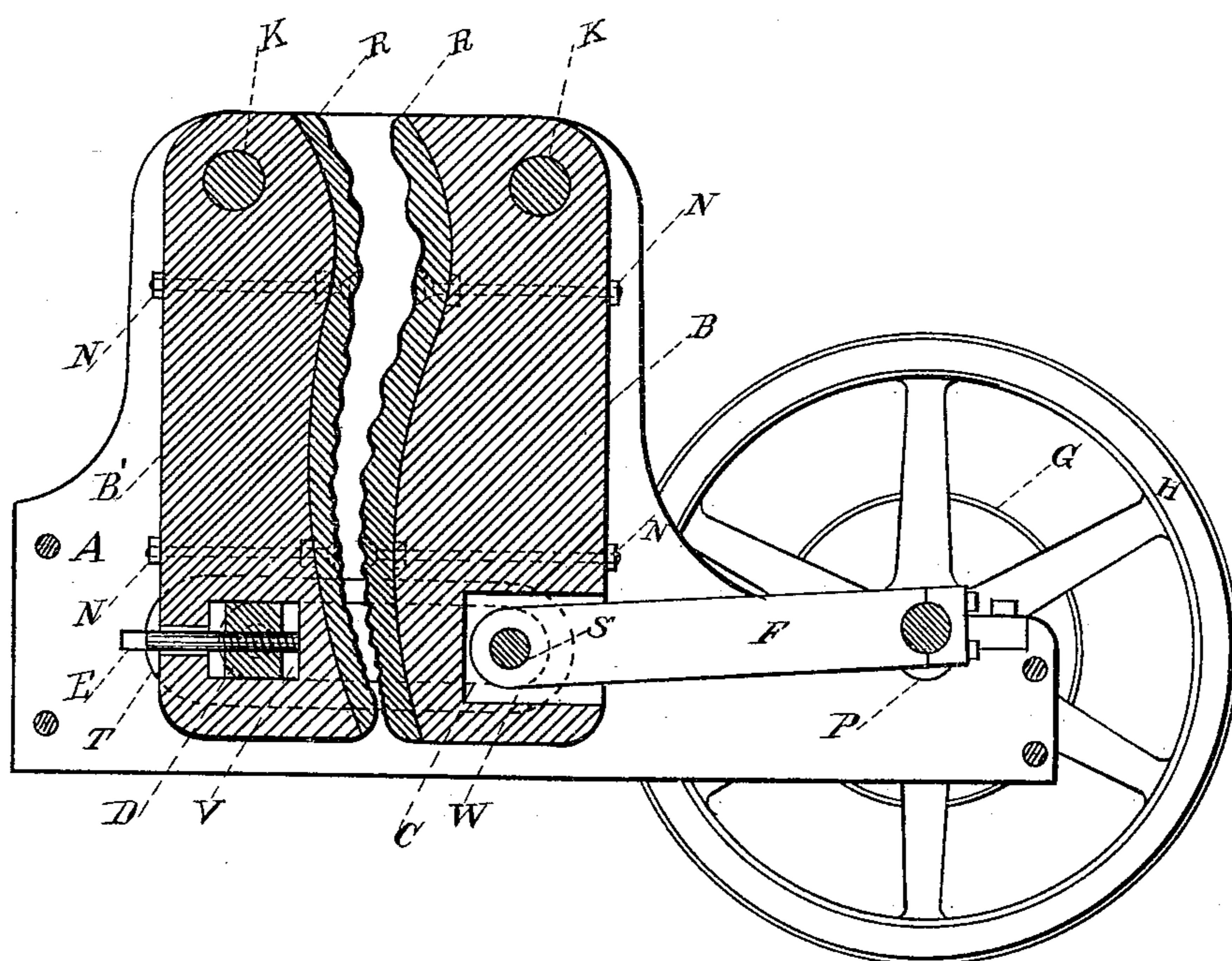


Fig 5

Attest  
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*Aaron Higley*  
per *Frank Higley*  
Attorney

# UNITED STATES PATENT OFFICE.

AARON HIGLEY, OF CLEVELAND, OHIO.

## CRUSHING-MACHINE.

SPECIFICATION forming part of Letters Patent No. 329,553, dated November 3, 1885.

Application filed March 23, 1885. Serial No. 159,796. (No model.)

*To all whom it may concern:*

Be it known that I, AARON HIGLEY, a citizen of the United States, residing at Cleveland, in the county of Cuyahoga and State of Ohio, have invented a new and useful Improvement in Crushing-Machines, of which the following is a specification.

My invention relates to the class of crushers having jaws pivoted at one end and reciprocated at the other end by a suitable mechanism; and the object of my invention is to provide a simple means of connecting and adjusting the reciprocated ends of the jaws. I attain this object by the mechanism illustrated in the accompanying drawings, in which—

Figure 1 is a side elevation of the machine. Fig. 2 is a section through frames A A on line *x x*, Fig. 1. Fig. 3 is a side elevation, one frame A being removed to show internal parts. Fig. 4 is a plan view. Fig. 5 is a longitudinal section on line *b b* of Figs. 2 and 4.

Like letters refer to like parts.

A A represent two iron plates, which are held in position by bolts or other suitable means, forming a solid frame, within which, supported by pivots K K, are two crushing-jaws, B and B'. The inner sides of the jaws are provided with chilled plates R R, having irregular surfaces attached by bolts N N N N, and the inner surface of the jaws are also made convex and concave, as shown, so that when the jaws are swung backward and forward they exert a grinding as well as a crushing effect upon the substance introduced between them; but the form of the inner surface of the jaws is not material in the application of my invention. Supported upon a shaft, P, is a pulley, G, and balance-wheel H. A reciprocating motion is imparted to the jaws by a crank upon shaft P, which is connected with jaw B by a pitman, F; but the manner of imparting motion to the pitman F is not material in my invention. In jaw B is an opening large enough for the introduction and free play of pitman F. C C are connecting-links. A pin, S, passes through jaw B and through the opening therein, answering, if desired, as a connecting-pin for pitman F, and at each end it is connected with a link, C. A pin, D, passes through an opening in jaw B', and at each end is attached

to a link, C. Passing through the pin D are set-screws E E, which screw through this pin and press against jaw B' at V, as shown in Fig. 5. The opening in jaw B' is large enough to allow pin D to move back and forth on a line with the set-screws E E, and, if desired, the opening may continue to the outer side of B', the only objection being that so large an opening weakens the jaw. The jaws are held close together at the bottom by the connecting-links described, and the distance between them may be adjusted by the set-screws E E. By screwing in upon the set-screws E E the jaw B' is pressed closer to jaw B, and the distance between the jaws may be increased by unscrewing upon the same screws. I do not confine my invention to the precise number of screws shown in the drawings.

The operation of the machine is as follows: The substance to be crushed is introduced between the jaws at the top, the jaws are swung back and forth as described, and the substance is crushed and ground as it passes down through the gradually-decreasing space between the jaws and passes out at the bottom. As the jaws become worn at the bottom by use, they can be brought nearer together by screwing in upon the set-screws in pin D; or, if the machine becomes clogged with the substance between the jaws, they may be opened by means of the set-screws.

My invention is not limited to the precise form of jaws described, but may be applied to any crushing-jaws operating on the same principle.

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

1. The combination of the jaws B and B', the pin S, links C C, the pin D, passing through a suitable opening in jaw B', and the set-screws E E, all arranged substantially as shown and described.

2. The combination of the jaws B and B', pin S, links C C, the pin D, passing through a suitable opening in jaw B', the set-screws E E, and pitman F, operated by suitable mechanism, all arranged substantially as shown, and for the purposes described.

AARON HIGLEY.

Witnesses:

JOHN F. WEH,  
JOHN E. HEENE.