

(No Model.)

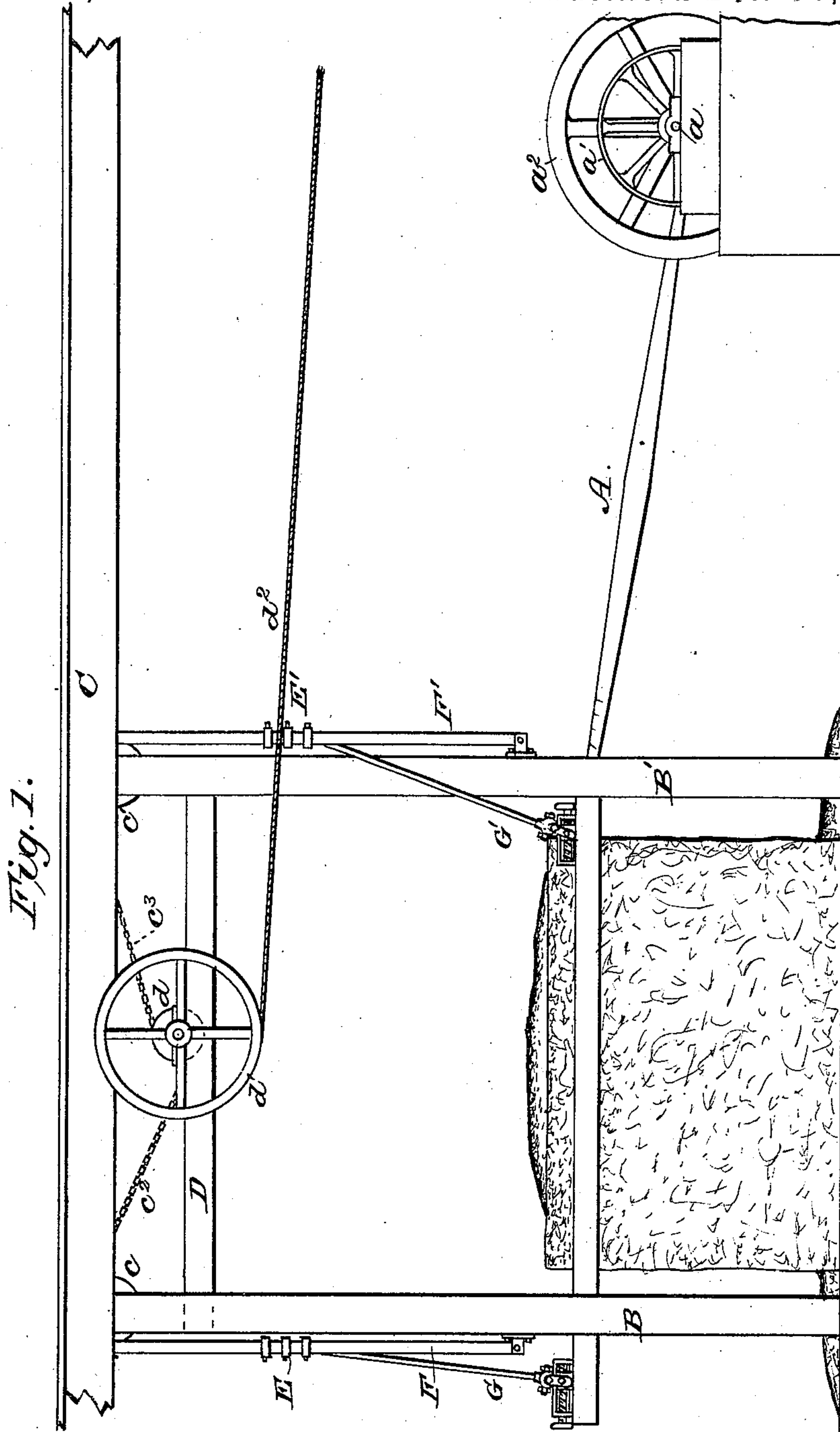
2 Sheets—Sheet 1.

P. JAEGER & J. W. BARNES.

SAW HANGING DEVICE FOR STONE SAWING MACHINES.

No. 309,956.

Patented Dec. 30, 1884.



Witnesses

Jos. A. Ryan.  
Wm. B. Davis.

Inventors

P. Jaeger.

J. W. Barnes.

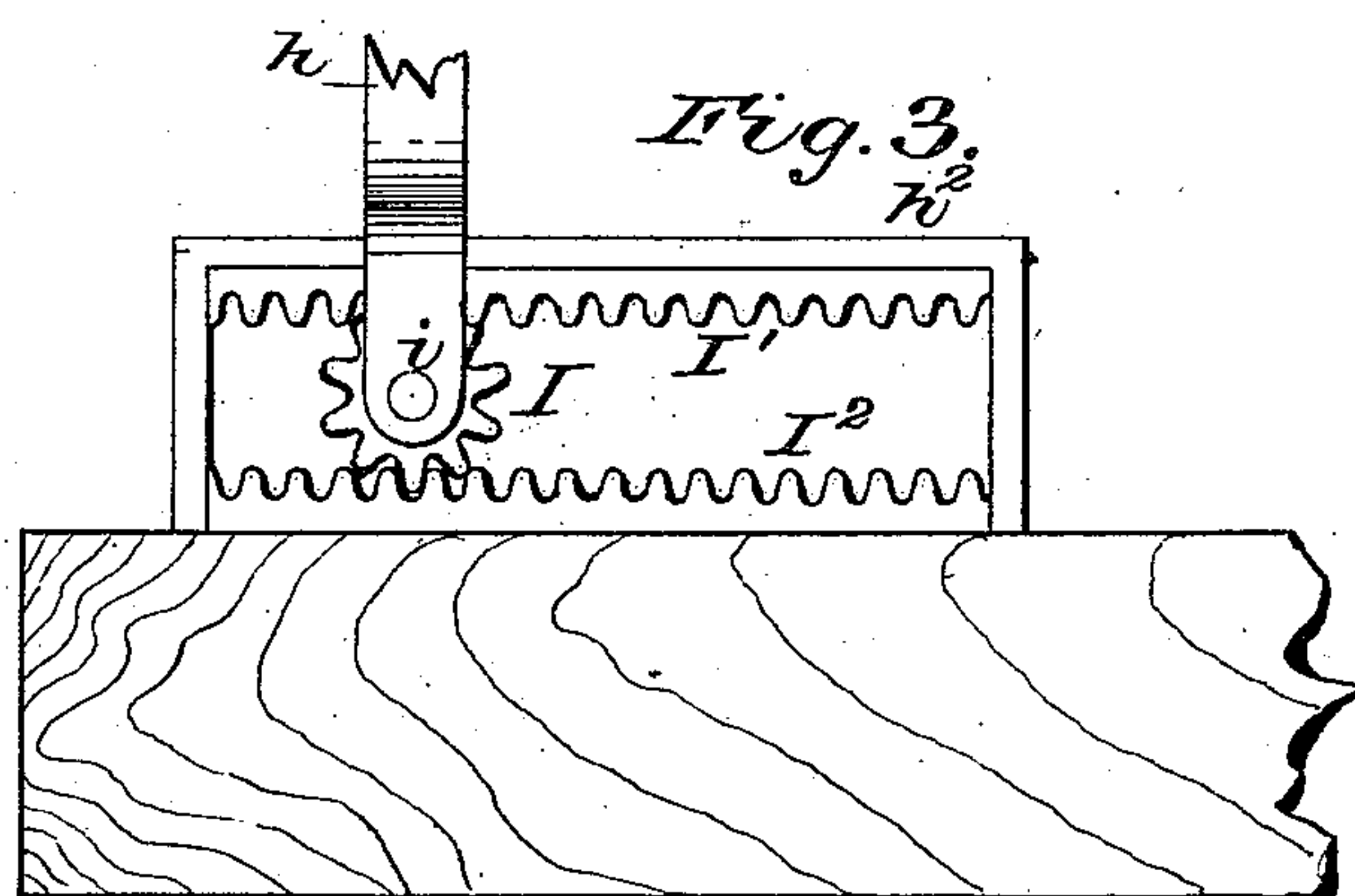
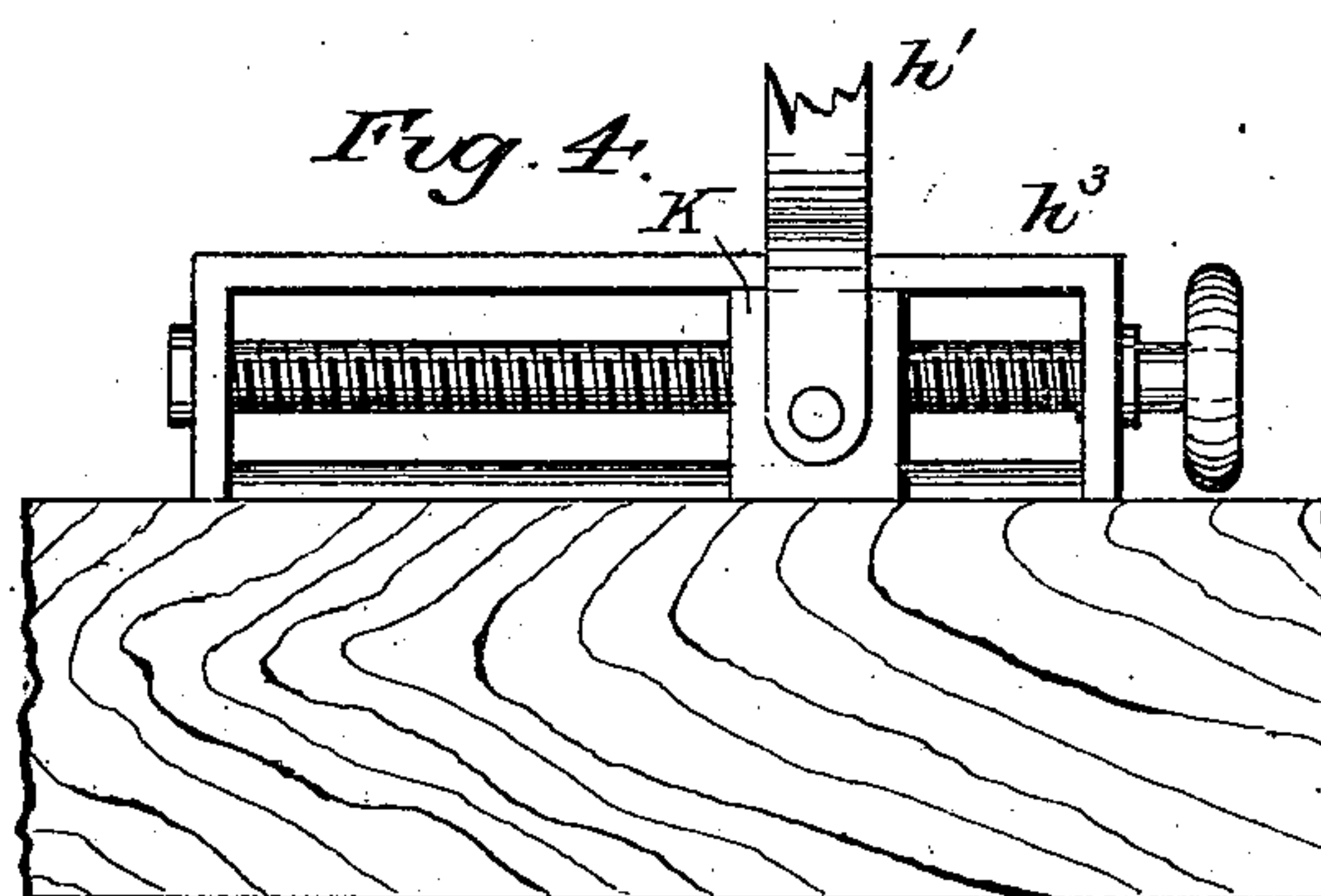
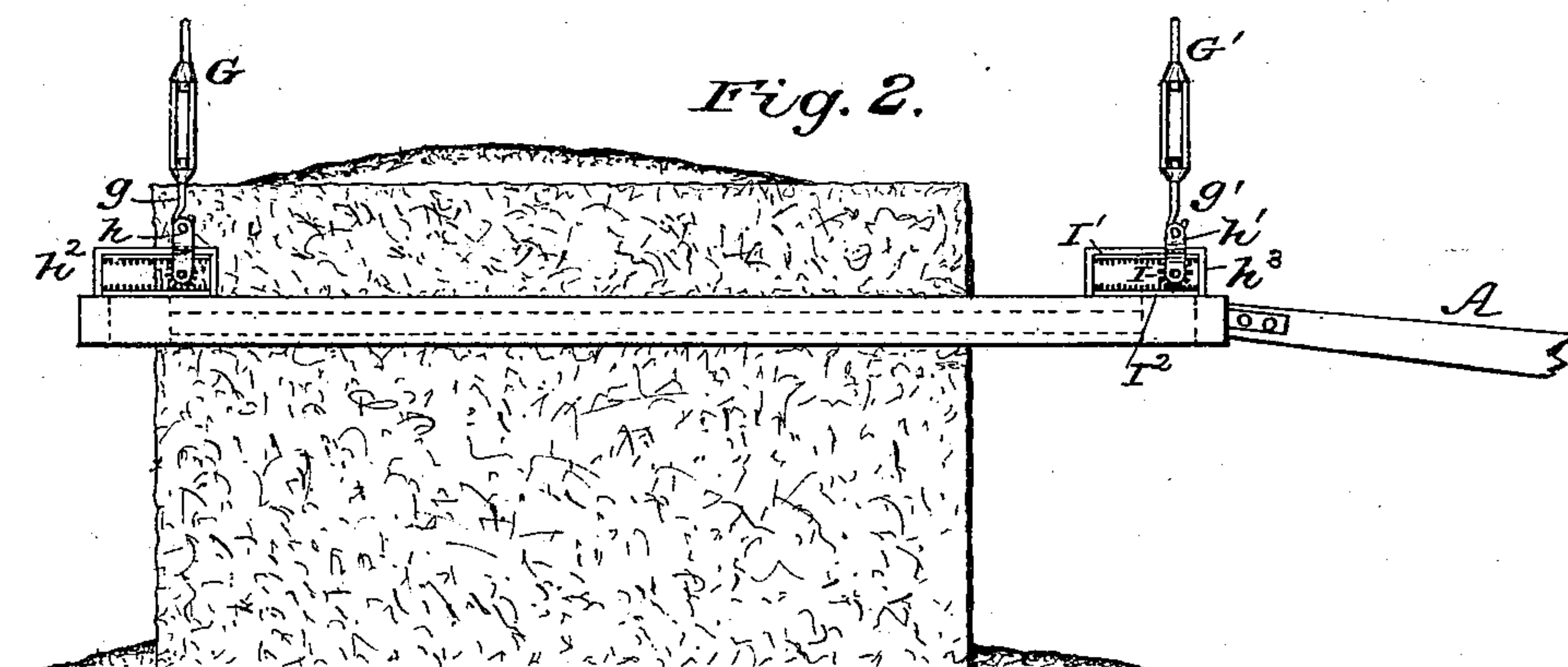
per

Brashear Williams  
attys

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Attorneys



# UNITED STATES PATENT OFFICE.

PHILLIP JAEGER AND JOHN W. BARNES, OF BALTIMORE, MARYLAND.

## SAW-HANGING DEVICE FOR STONE-SAWING MACHINES.

SPECIFICATION forming part of Letters Patent No. 309,956, dated December 30, 1884.

Application filed February 28, 1884. (No model.)

*To all whom it may concern:*

Be it known that we, PHILLIP JAEGER and JOHN W. BARNES, of Baltimore city, Maryland, have invented certain new and useful  
5 Improvements in Saw - Hanging Devices for Stone-Sawing Machines, of which the following is a specification, reference being had to the accompanying drawings, forming part thereof, in which—

10 Figure 1 is a view in side elevation of a machine embodying our improvements. Fig. 2 is a partial side elevation of the same. Fig. 3 is a view of the adjusting device, and Fig. 4 is a view of a modification thereof.

15 Like letters of reference refer to the same parts in all the figures.

Our invention will be first fully described, and afterward specifically pointed out in the claims.

20 Referring to the drawings by letter, A is a pitman connecting a crank on the shaft *a* with the saw - frame. The shaft *a* carries a belt-pulley, *a'*, through the medium of which it is rotated, and a fly-wheel, *a''*.

25 B B' are the two posts which form one side of a frame whose function it is to act as a support from which to suspend the saw-frame, by means of devices to be described hereinafter, and this frame has suitable top beams, C, and  
30 cross-beams D, the former having pulleys or sheaves *c c'* journaled therein, and the latter a drum - shaft carrying drum *d* and sheave *d'*, journaled therein. A chain, *c''*, passes over the pulley *c* and has one end secured to a  
35 cross-bar, E, while a similar chain, *c'''*, passes over pulley *c'*, and is secured to the cross-bar E'. These chains are wound in opposite directions around the drum *d*, and wind or unwind simultaneously when the drum is turned,  
40 which is done by paying in or out the rope *d''*, which is secured to sheave *d'*, and operated in any suitable manner. The cross - bars E E' are loosely engaged on bars F F', so that they may slide vertically thereon. These bars F  
45 F' are rigidly secured in an upright position.

In Figs. 3 and 4 we illustrate two mechanisms for connecting two swinging bars, G G', to the saw-frame. These swinging bars are pivoted to the cross bars E E' at their upper ends,  
50 and are provided with hooks *g g'* at their lower ends to engage the adjusting devices. The

adjusting devices are rigidly secured to the saw-frame, and may be described as follows, viz: Each is provided with a swinging link, *h*, which connects with the hooks *g g'*, and a  
55 main frame, *h'' h'''*, secured to the saw-frame. The links *h h'* straddle the frames *h'' h'''*, and have their lower ends perforated.

In the perforations of link *h* is journaled the shaft or pin *i* of a gear-wheel I, said shaft  
60 being free to turn in said perforations. A stationary toothed or rack bar, I', is secured in the frame to engage said gear - wheel, and when said wheel has been adjusted it is secured in position by a rack, I'', which is slid  
65 laterally into the frame below the wheel, locking said wheel in any suitable position to which it may be adjusted.

In the perforations of link *h'* in Fig. 4 are the pins of a pivoted nut, K, and the adjust-  
70 ment in this instance is effected by means of a screw passing through said nut and swiveled in the frame. By these means the saw-frame may be raised or lowered at either end, as desired, by simply adjusting the connec-  
75 tions, as described. By these devices the saw-frame may be raised or lowered in a very minor degree so it may be fed down but a short distance, and equally at both ends as the stone is cut away, enabling the proper  
80 cutting of the stone, and preventing too great wear and damage to the saw from an excessive bearing thereof on the stone.

In use it will be understood the swinging links may be adjusted from time to time as  
85 adjustment of the connection between the saw-frame and links is exhausted, when the saw-frame is lowered and the pinion adjusted to the end of the frame, at which it holds the saw-frame highest, when, as the sawing pro-  
90 ceeds, it may be adjusted at intervals toward the opposite end of frame *h''*, as will be understood. It will also be seen that by the adjustable connections of the links with the saw-frame the latter may be raised or lowered at  
95 one or the other end, so as to properly level the same as is desirable.

Having thus described our invention, what we claim, and desire to secure by Letters Patent, is—

1. The combination of the saw - frame, the swinging links, and a device connecting said

links and saw-frame, and adjustable in the direction of length of the latter, substantially as set forth.

2. The combination of the saw - frame, the swinging links, supports for said links, means whereby said link-supports may be adjusted vertically, and devices connecting the links and saw - frame, and adjustable in the direction of length of the saw-frame, substantially as set forth.

3. The combination of the crank-shaft, the pitman, the saw - frame, the swinging links, the adjustable ropes and pulleys, whereby said links may be adjusted vertically, and devices connecting the swinging links and saw-frame, and adjustable in the direction of length of the latter, substantially as set forth.

4. The combination of the saw - frame, the rack mounted rigidly on said frame, the swinging link, the pinion supported on the lower end thereof, and adjustable along the fixed rack, and a movable rack adjustable into engagement with the pinion on the side thereof opposite the fixed rack, whereby said pinion may be held at any point of adjustment desired, substantially as set forth.

In testimony whereof we have hereunto set our hands in presence of two witnesses.

PHILLIP JAEGER.  
JOHN W. BARNES.

Witnesses:

JNO. T. MADDON,  
C. R. WEAVER.