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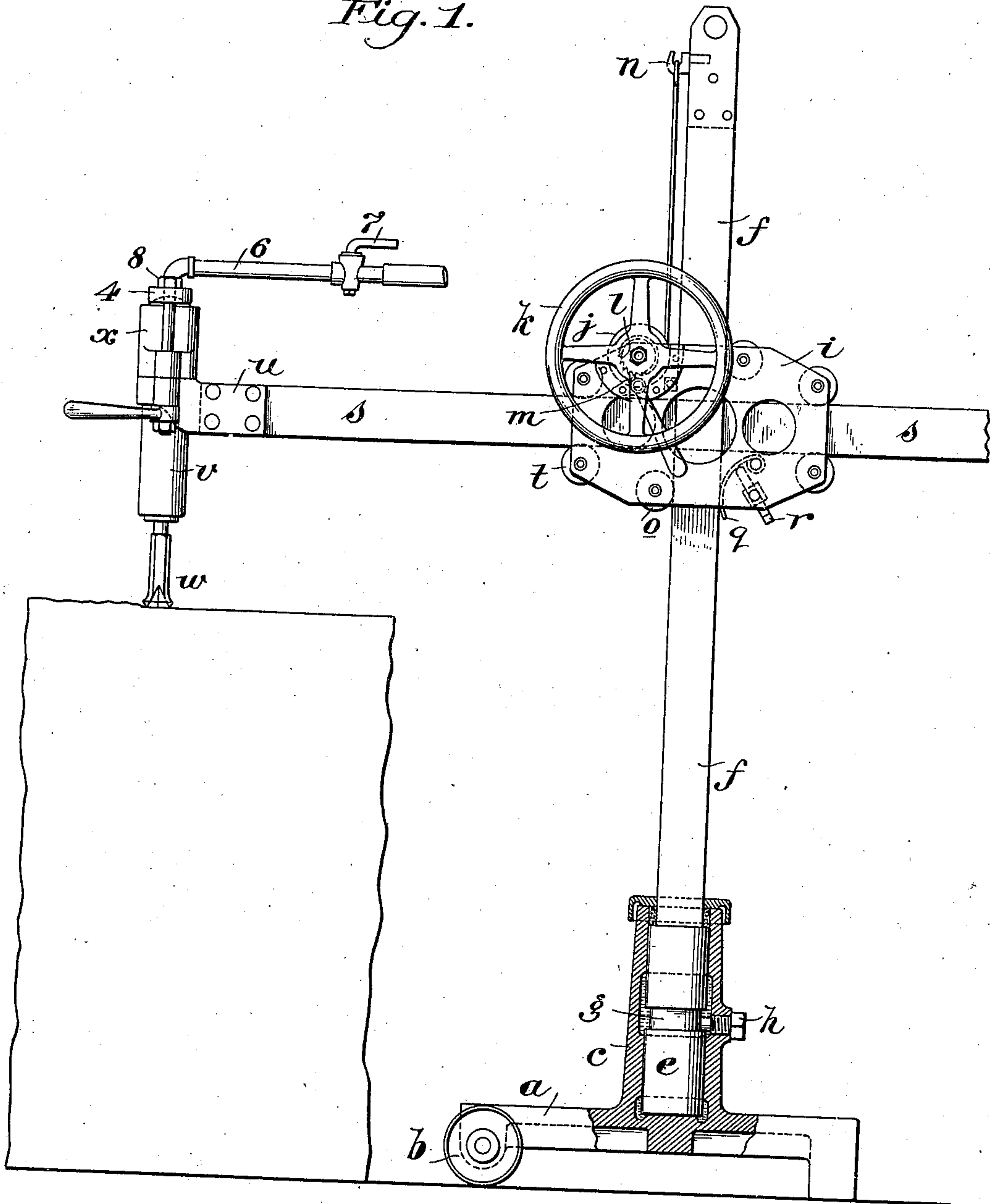
PATENTED MAR. 12, 1907.

W. H. VAN SICKEL.
STONE DRESSING MACHINE.
APPLICATION FILED SEPT. 30, 1906.

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3 SHEETS—SHEET 1.

Fig. 1.



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Arthur H. Vanderveer

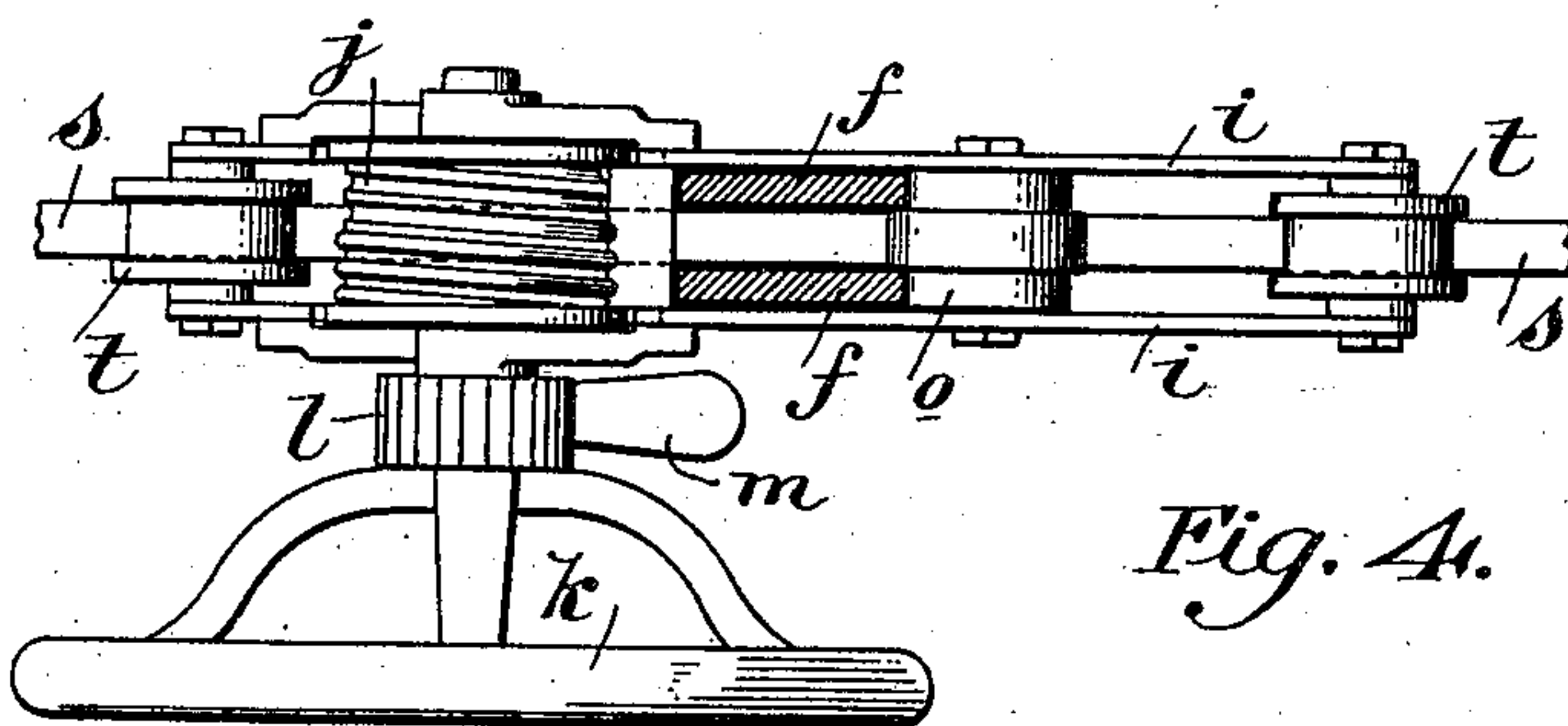
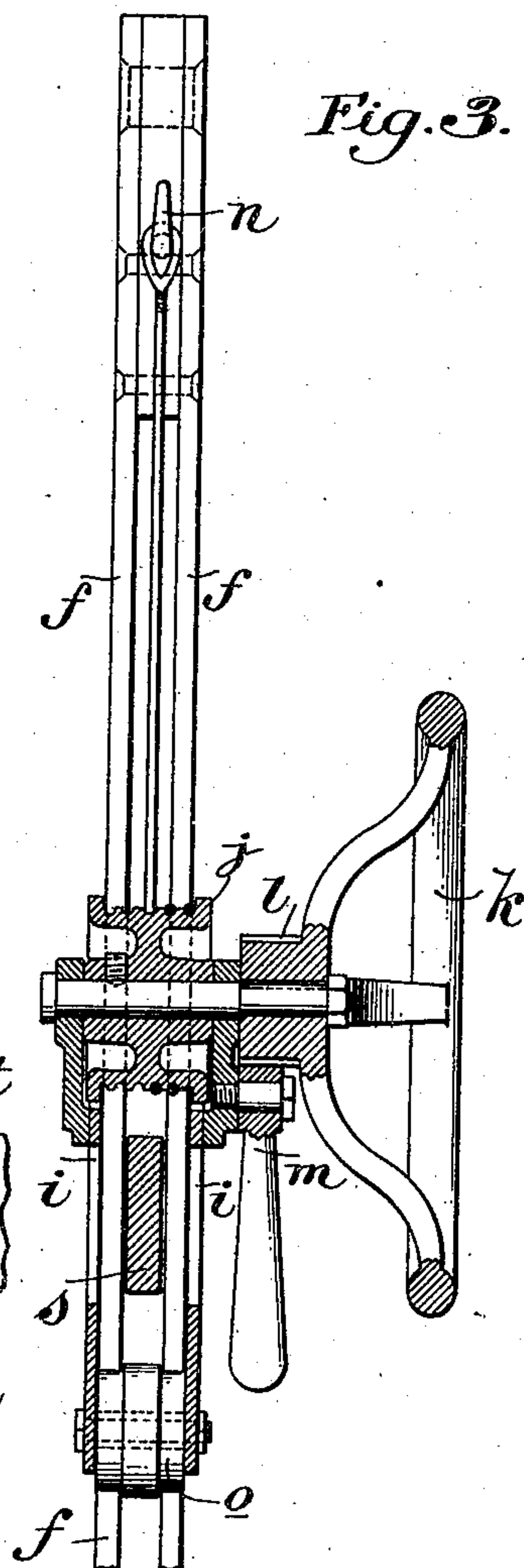
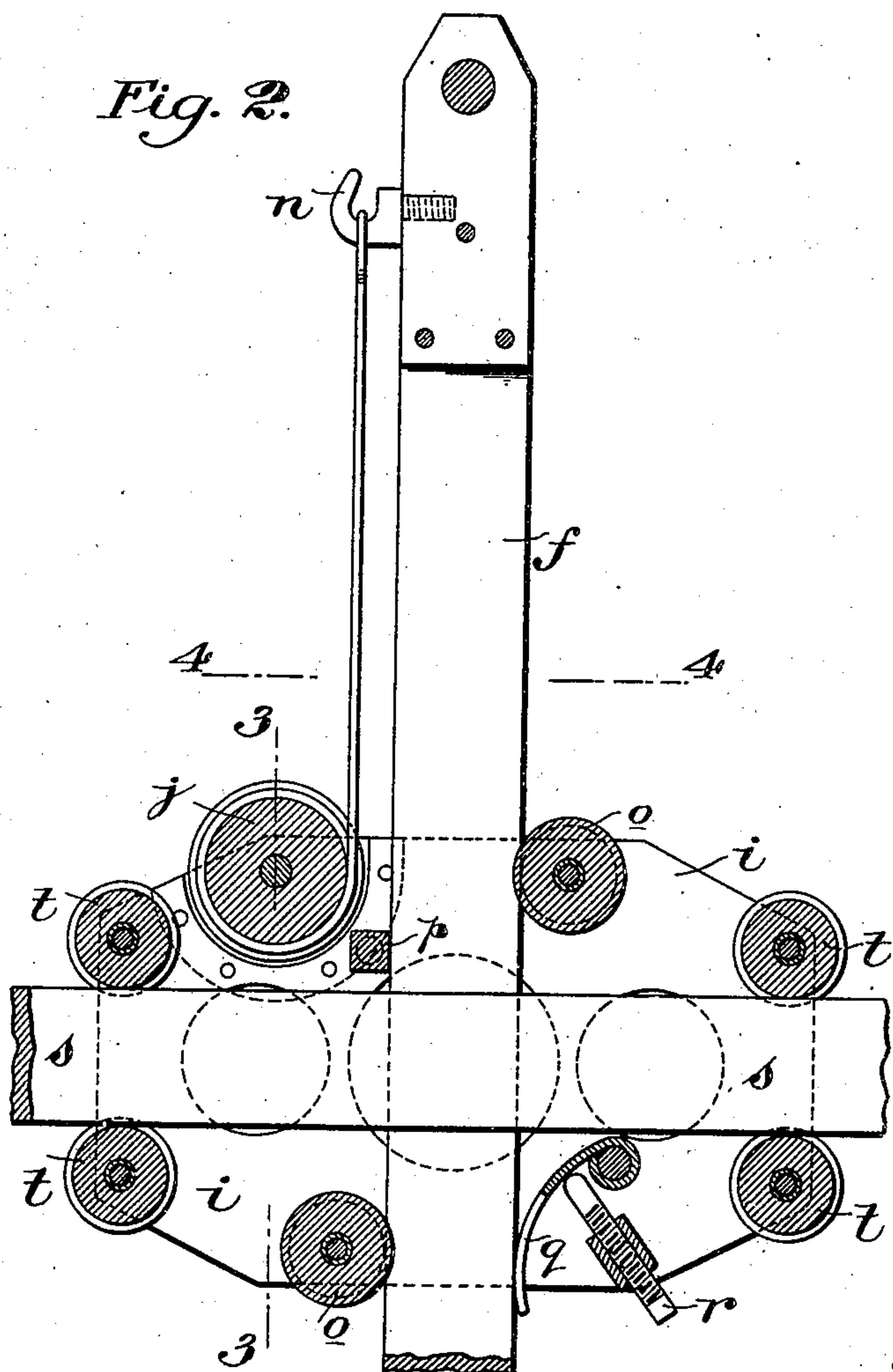
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3 SHEETS—SHEET 2.



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3 SHEETS--SHEET 3.

Fig. 5.

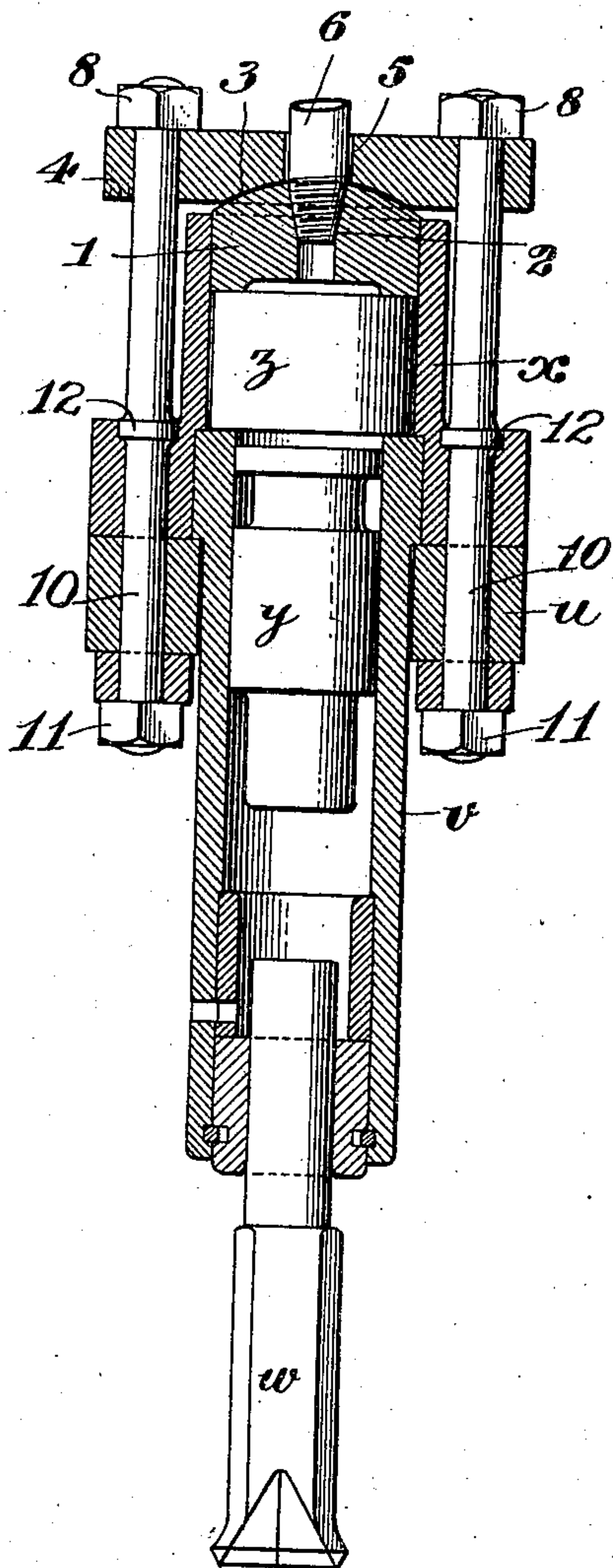


Fig. 6.

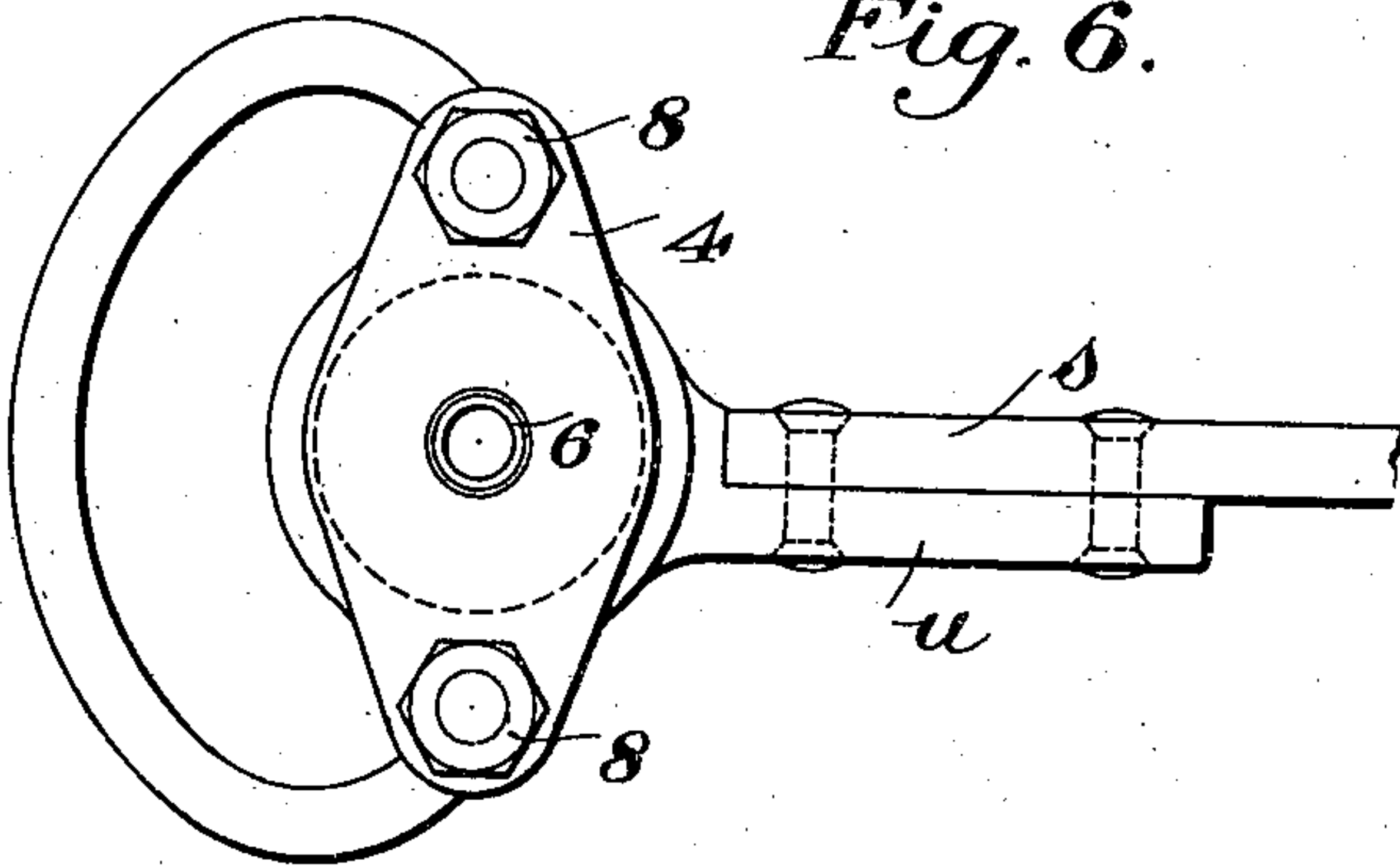
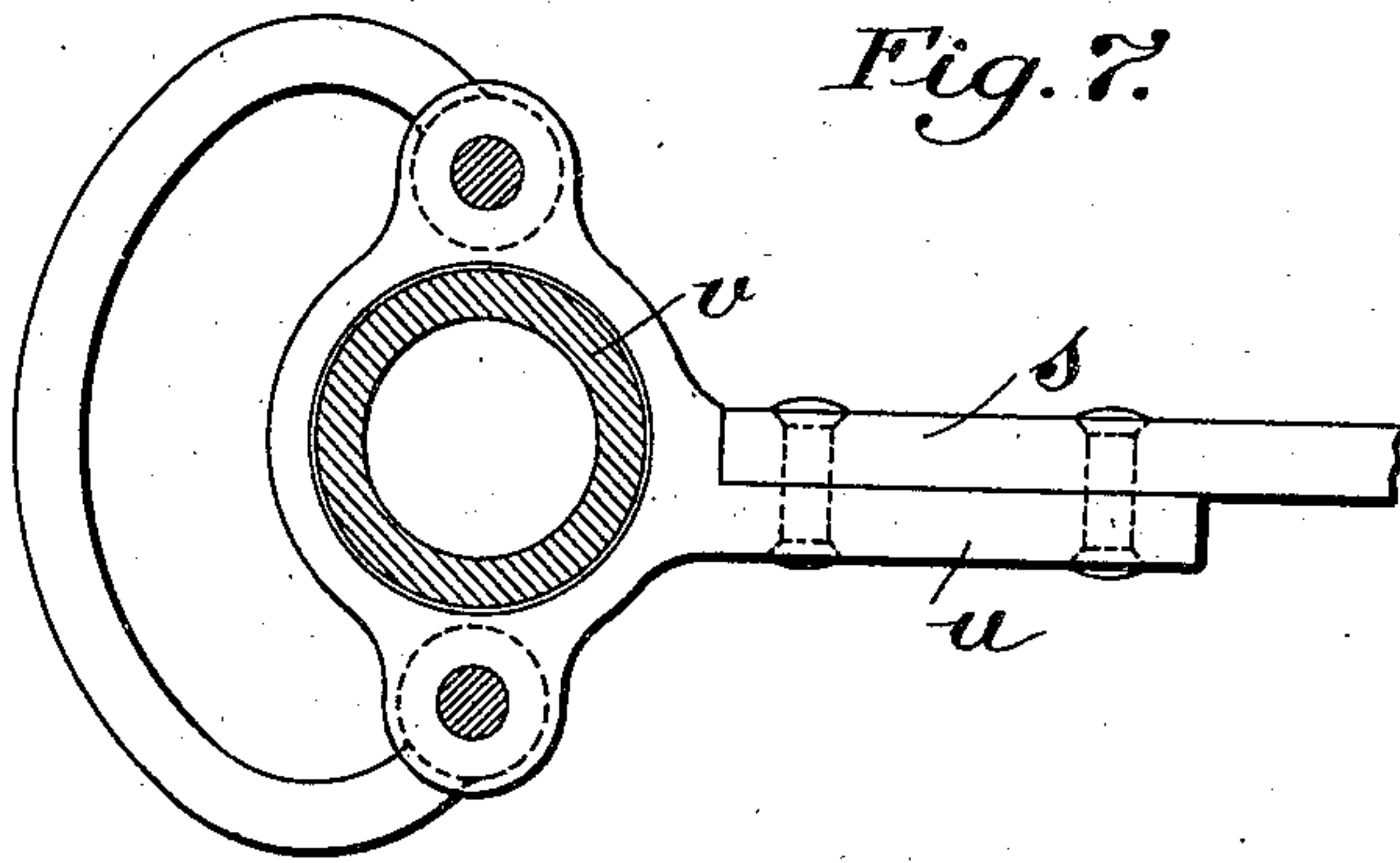


Fig. 7.



Witnesses:
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Inventor:
Wilbur H. Farnikel
his Hallowed Handing
Attys

UNITED STATES PATENT OFFICE.

WILBER H. VAN SICKEL, OF PHILADELPHIA, PENNSYLVANIA, ASSIGNOR TO
THOS. H. DALLETT CO., A CORPORATION OF NEW JERSEY.

STONE-DRESSING MACHINE.

No. 846,808.

Specification of Letters Patent.

Patented March 12, 1907.

Application filed September 30, 1905. Serial No. 280,738.

To all whom it may concern:

Be it known that I, WILBER H. VAN SICKEL, a citizen of the United States, residing at Philadelphia, county of Philadelphia, and State of Pennsylvania, have invented a new and useful Improvement in Stone-Dressing Machines, of which the following is a full, clear, and exact description, reference being had to the accompanying drawings, which form a part of this specification.

My invention has for its object the production of a stone-dressing machine which will be convenient to use and simple in construction, enabling the tool to be readily taken apart for examination or repairs.

I will first describe the embodiment of my invention illustrated in the accompanying drawings and then point out the invention in the claims.

In the drawings, Figure 1 is a side elevation of the machine, partly in section. Fig. 2 is a vertical sectional view through the carrying-frame. Fig. 3 is a vertical view on the line 3 3, Fig. 2. Fig. 4 is a sectional plan view on the line 4 4, Fig. 2. Fig. 5 is a vertical sectional view through the tool-cylinder. Fig. 6 is a plan view of this portion of the machine. Fig. 7 is a sectional plan view through the tool-cylinder, showing the holding-bracket.

a is the base of the machine, supported upon wheels *b*, so that it is movable to the desired positions. *c* is a hollow round projection from this base *a*, in which rests the enlarged end *e* of the bifurcated standard *f*. This end *e* rests loosely in the projection *c*, which may be filled with oil or other lubricant to enable the standard to be readily turned. In order to prevent the standard rising vertically, in the enlarged end *e* is an annular groove *g*, in which a set-screw *h* projects. *i* is a frame carrying the drum *j*, hand-wheel *k*, and ratchet *l* with its pawl *m*. A cord or chain has one end connected to the hook *n* at the top of the standard *f*. The other end is secured to the drum *j*. By turning the hand-wheel *k* the cord is wound upon the drum, elevating the frame *i*. This frame *i* carries the rollers *o o*, which travel against the standard *f*. These rollers are diagonally on opposite sides of the standard, and at opposite sides of the standard *f*, diagonally with respect to each other, are respectively the

block *p* and the spring *q*, controlled by the set-screw *r*. The frame is held from moving downward by the ratchet and pawl before described. To cause the frame to descend, the pawl is released and either by the weight of the frame or by turning the hand-wheel the frame descends. *s* is a horizontal arm or slide, which passes or extends between the bifurcations of the standard *f*, resting between the rollers *t*, carried by the frame *i*. The arm thus supported is enabled to be moved longitudinally, and its support, due to passing through the center line of upright, is such that there is no torsional strain when the tool, supported at its outer end, is in action. Moreover, it has a broad or long bearing-support. The spring *q* gives to the arm a flexibility of movement enabling the tool to be readily moved over the uneven surfaces of the stone. It also compensates for any lost motion. The arm *s* at its outer end carries the tool-holding bracket *u*. The hammer-barrel *v*, in which at the lower end is the tool-bushing, is secured by pressure in the valve-box sleeve *x*, which valve-box sleeve rests upon the bracket *u* and is secured thereto between the nuts 11 and heads 12 on rods 10. *w* is the cutting-tool.

The operative parts of the tool are assembled as follows: The hammer *y* is loose in the hammer-barrel *v*. The valve-box *z* is within the valve-box sleeve *x*, resting on the top of the hammer-barrel. The cap 1, having the orifice 2, rests on the top of the valve-box *z*. The top of the cap 1 is rounded, as shown, and on it rests the rounded or curved cut-away portion 3 in the under side of the yoke 4, the yoke having also an orifice 5 through it. Through these orifices 2 and 5 extends the air-inlet pipe 6, leading to the source of air-pressure, the inlet of which air is controlled by a cock 7. The yoke is secured in position by the rods which pass through orifices in the yoke and the tool-holding bracket, and the yoke is forced against the cap by the nuts 8. To disassemble the parts, all that is necessary is to release the nuts and remove the yoke, when the cap can be removed, which will then open the interior of the valve-box sleeve and hammer-barrel, so that the valve-box and hammer may readily be removed for inspection or replacement. Moreover, by this construction when the parts are

assembled they are rigid and the connections are air-tight.

Having now fully described my invention, what I claim, and desire to protect by Letters

5 Patent, is—

1. In a stone-dressing machine, in combination, a bifurcated rotatable standard, a frame vertically movable upon the exterior of said standard, rollers carried by said frame
10 in line with the space between the bifurcation of said standard, an arm extending loosely through said bifurcation, resting upon said rollers, and extending beyond said frame and standard, said arm being adapted to support the operating-tool.

2. In a stone-dressing machine, in combination, a bifurcated rotatable standard, a frame consisting of two plates, connected together, vertically movable upon the exterior
20 of the bifurcated standard, rollers between said plates, an arm, adapted to support the operating-tool, extending loosely through the bifurcation, resting upon said rollers and extending beyond said standard and frame.

3. In a stone-dressing machine, in combination, a tool-carrying arm, a tool-holding bracket carried thereby, a hammer-barrel and valve-box sleeve secured to said bracket, a hammer adapted to be loosely inserted in
30 the hammer-barrel and a loose valve-box adapted to be inserted in the valve-box sleeve, and means independent of the valve-box, hammer-barrel and bracket-securing means to hold the valve-box in fixed and air-tight position whereby the valve may be disconnected and removed without severing connection between the hammer-barrel and valve-box sleeve and bracket.

4. In a stone-dressing machine, in combination, a tool-carrying arm, a tool-holding bracket carried thereby, a hammer-barrel and valve-box sleeve secured to said bracket, a hammer adapted to be loosely inserted in the hammer-barrel and a loose valve-box
45 adapted to be inserted in the valve-box sleeve, a cap having an orifice adapted to be inserted above said valve-box, and means independent of the valve-box, hammer-barrel and bracket-securing means to clamp the cap against the valve-box whereby the valve
50 may be disconnected and removed without severing connection between the hammer-barrel and valve-box sleeve and bracket.

5. In a stone-dressing machine, in combination, a tool-carrying arm, a tool-holding bracket carried thereby, a hammer-barrel and valve-box sleeve secured to said bracket, a hammer adapted to be loosely inserted in the hammer-barrel and a loose valve-box
60 adapted to be inserted in the valve-box sleeve, a cap having an orifice adapted to be inserted above said valve-box, and a yoke resting upon said cap and means independent of the valve-box, hammer-barrel and bracket securing means to force the yoke against the

cap whereby the valve may be disconnected and removed without severing connection between the hammer-barrel and valve-box sleeve and bracket.

6. In a stone-dressing machine, in combination, a tool-carrying arm, a tool-holding bracket carried thereby, a hammer-barrel and valve-box sleeve secured to said bracket, a hammer adapted to be loosely inserted in the hammer-barrel and a loose valve-box
70 adapted to be inserted in the valve-box sleeve, a cap having an orifice adapted to be inserted above said valve-box, and an orificed yoke resting upon said cap and means independent of the valve-box, hammer-barrel and bracket-securing means to force the yoke against the cap whereby the valve may be disconnected and removed without severing connection between the hammer-barrel and valve-box sleeve and bracket.

7. In a stone-dressing machine, in combination, a tool-carrying arm, a tool-holding bracket carried thereby, a hammer-barrel and valve-sleeve secured to said bracket, a hammer adapted to be loosely inserted in the hammer-barrel and a loose valve-box adapted to be inserted in the valve-box sleeve, a cap having an orifice adapted to be inserted above said valve-box, and a yoke resting upon said cap and means independent of the valve-box, hammer-barrel and bracket-securing means to force the yoke against the cap whereby the valve may be disconnected and removed without severing connection between the hammer-barrel and valve-box sleeve and bracket.

8. In a stone-dressing machine, in combination, a tool-carrying arm, a tool-holding bracket carried thereby, a hammer-barrel and valve-sleeve secured thereto, a hammer adapted to be loosely inserted in the hammer-barrel and a loose valve-box adapted to be inserted in the valve-box sleeve, a cap having an orifice adapted to be inserted above said valve-box, and an orificed yoke
110 resting upon said cap and means to force the yoke against the cap, the top of the cap having an upwardly-extending curved surface and the lower face of the yoke a corresponding inset.

9. In a stone-dressing machine, in combination, two members, one an upright, the other a frame vertically movable upon said upright, a spring carried by one member and exerting a pressure against the other member, and a tool-carrying arm supported by said frame.

10. In a stone-dressing machine, in combination, two members, one an upright, the other a frame vertically movable upon said upright, and having a bearing point or points upon said upright and a spring carried by one member and exerting a pressure against the other member, and a tool-carrying arm supported by said frame.

11. In a stone-dressing machine in combination, two members, one an upright, the other a frame vertically movable upon said upright, a tool-carrying arm supported by
5 said frame and a spring carried by said frame and exerting a pressure against the member.

12. In a stone-dressing machine, in combination, an upright, a frame vertically movable upon said upright, a tool-carrying arm
10 supported by said frame, said frame being

spring-cushioned whereby the arm has a flexible movement.

In testimony of which invention I have hereunto set my hand, at Philadelphia, on this 18th day of September, 1905.

WILBER H. VAN SICKEL.

Witnesses:

M. M. HAMILTON,
J. B. WOOD.