

(No Model.)

C. W. SHIVELY & S. W. BARCLAY.
SCRUBBING AND MOPPING MACHINE.

No. 500,221.

Patented June 27, 1893.

Fig. 1.

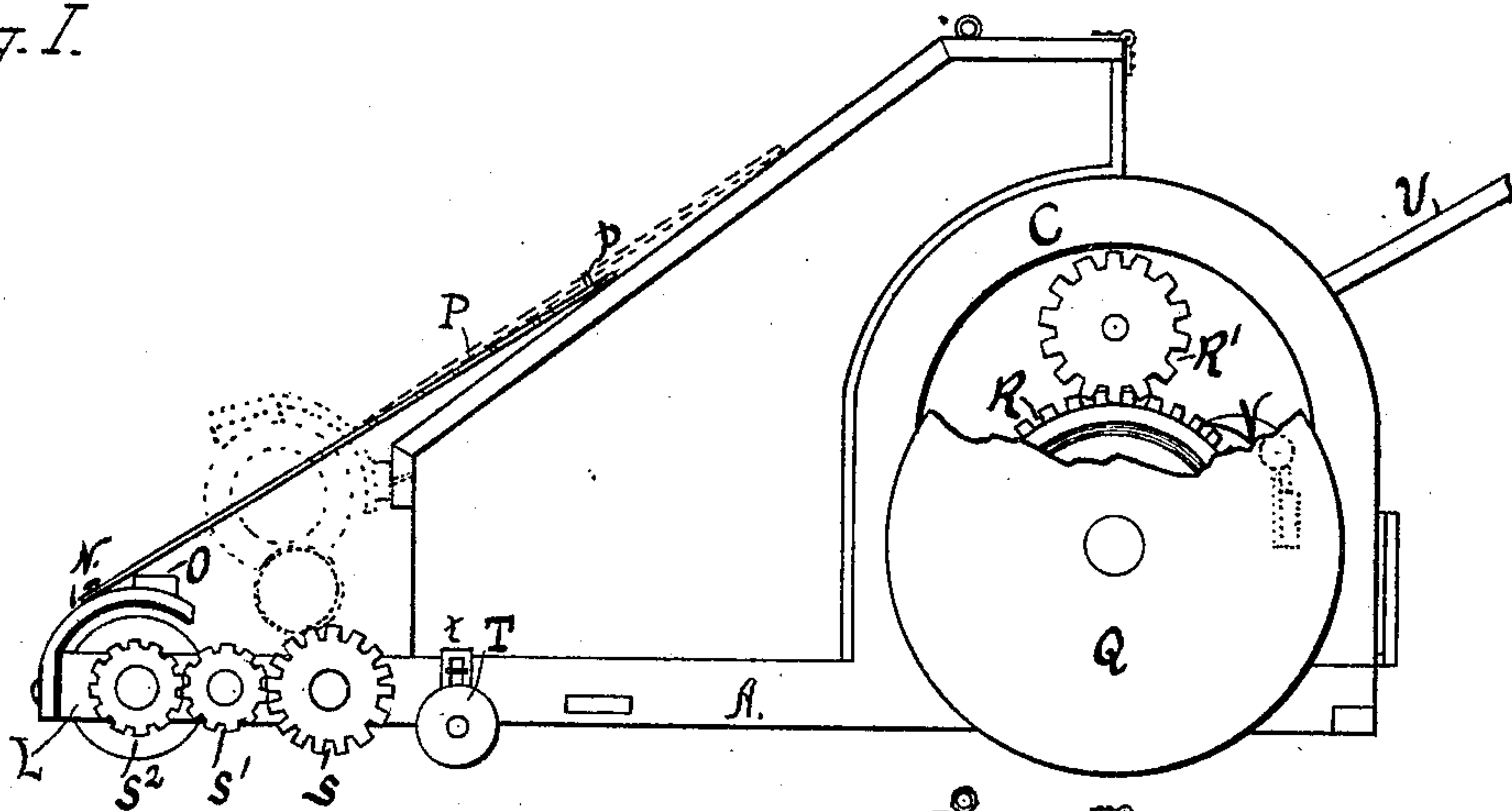


Fig. 2.

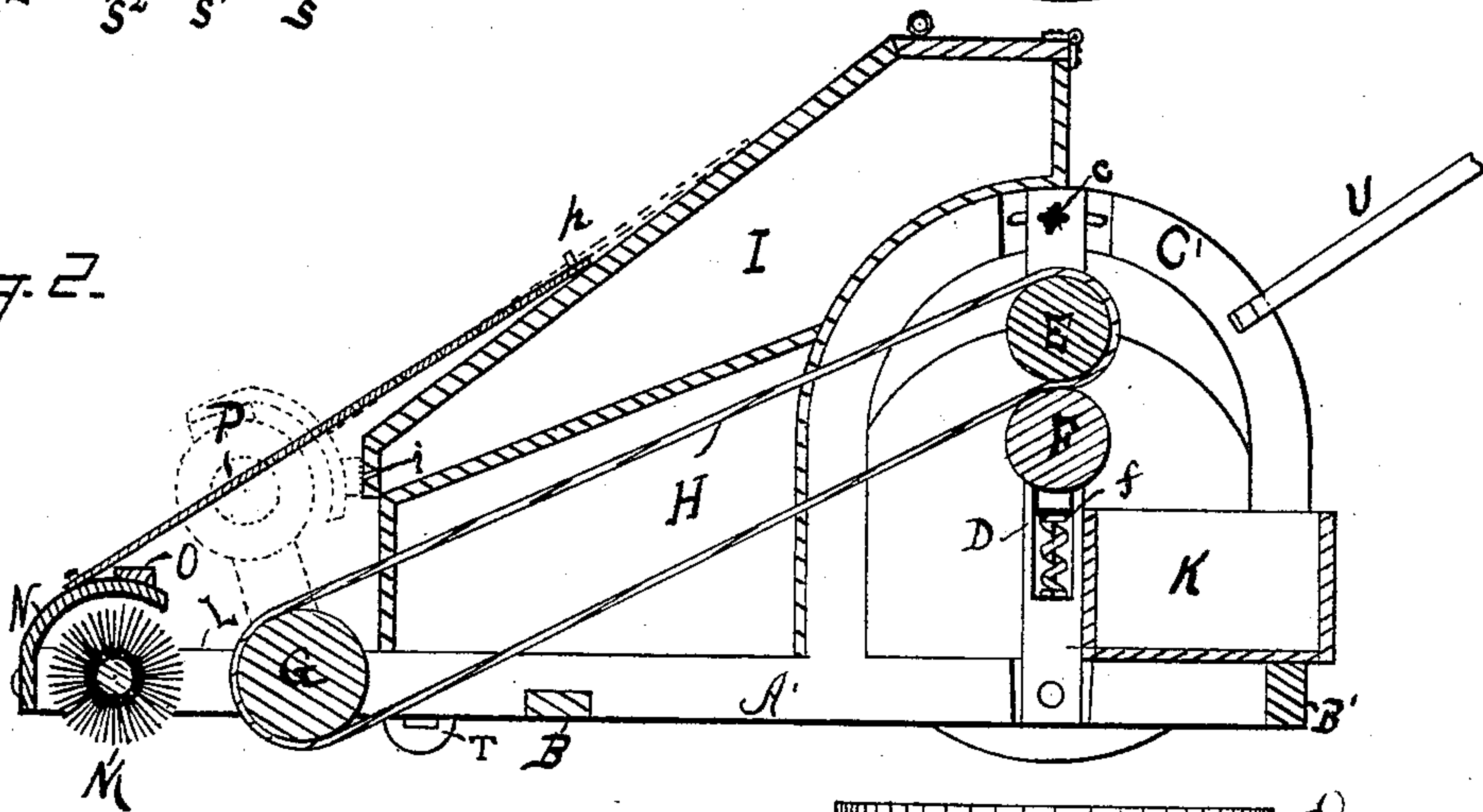


Fig. 3.

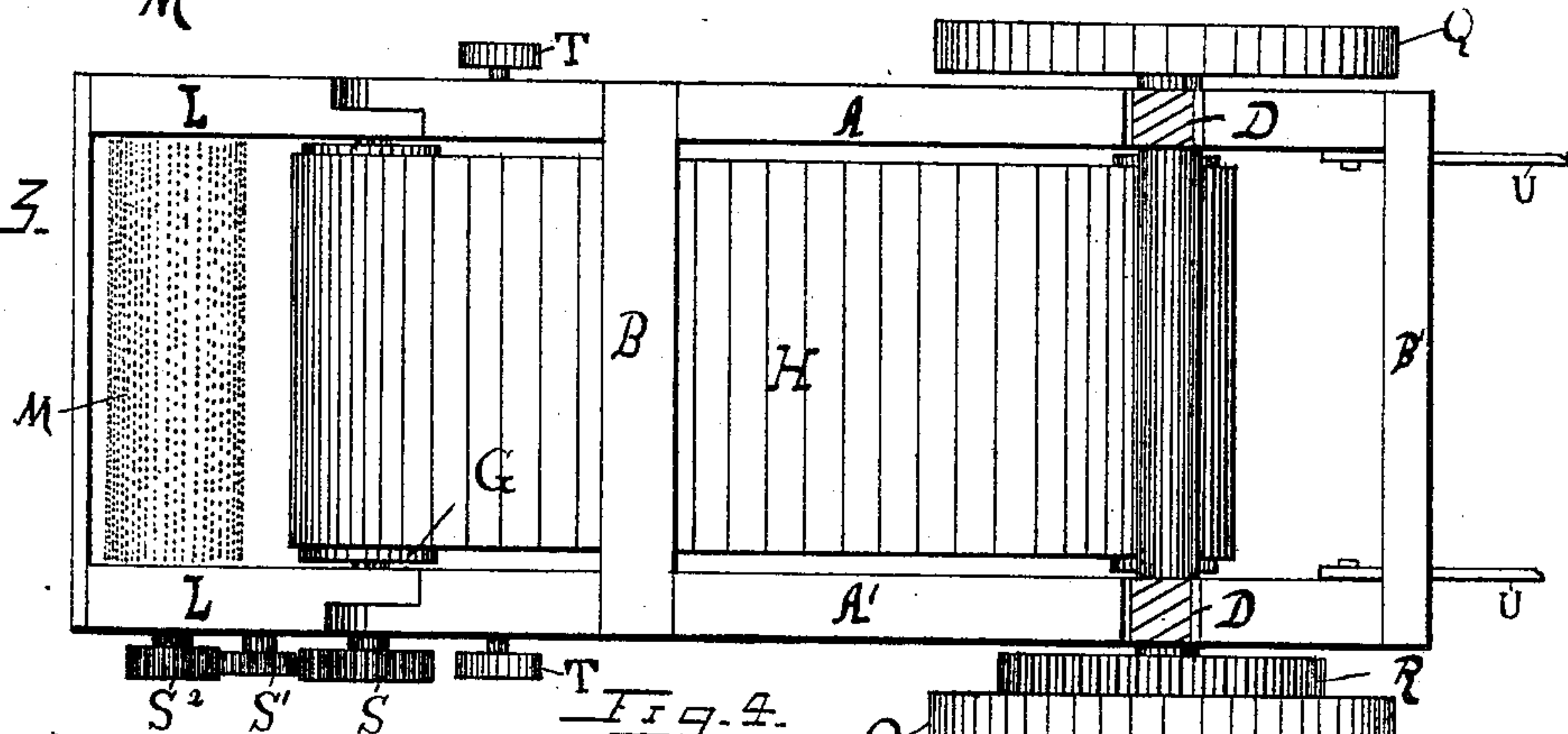
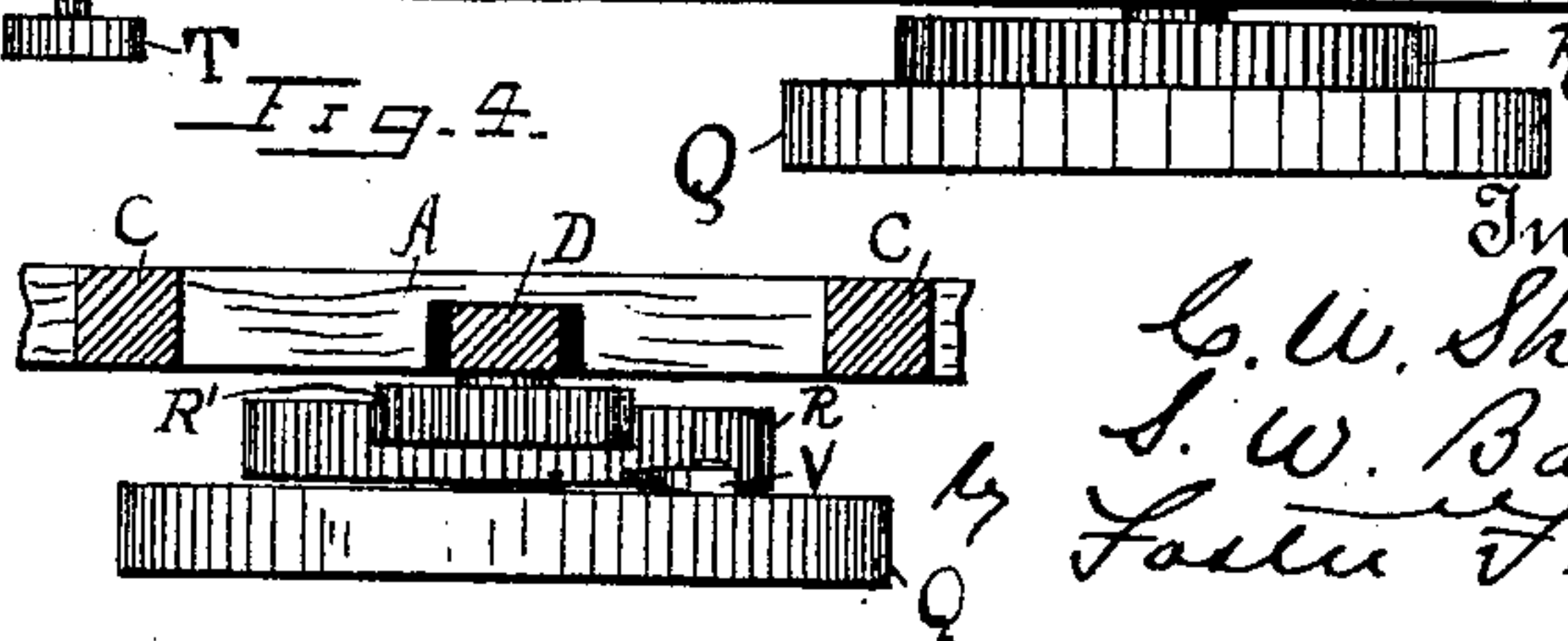


Fig. 4.



Witnesses
Charles E. Graves.
and H. Robson

Inventors
C. W. Shively
S. W. Barclay
Foster Freeman
Attorneys

UNITED STATES PATENT OFFICE.

CHARLES W. SHIVELY AND SQUIRE W. BARCLAY, OF MORRIS, ASSIGNORS
TO SAMUEL S. BARCLAY, OF COVELL, ILLINOIS.

SCRUBBING AND MOPPING MACHINE.

SPECIFICATION forming part of Letters Patent No. 500,221, dated June 27, 1893.

Application filed June 3, 1892. Serial No. 435,398. (No model.)

To all whom it may concern:

Be it known that we, CHARLES W. SHIVELY and SQUIRE W. BARCLAY, citizens of the United States, residing at Morris, Grundy county, State of Illinois, have invented certain new and useful Improvements in Scrubbing and Mopping Machines, of which the following is a specification.

Our invention relates to scrubbing and mopping machines and it has for its object to provide such a machine which shall be simple in its operation, cheap in manufacture and effective in its work, and at the same time shall not be liable to get out of order, and to these ends our invention consists in a machine embodying the various features of construction, arrangement and operation, substantially as set forth hereinafter.

Referring to the accompanying drawings—
20 Figure 1, is a side view of a machine embodying our invention, parts being broken away to show the gears. Fig. 2, is a longitudinal, vertical section of the same. Fig. 3, is a bottom plan view. Fig. 4 is a detail view.

25 The general features of our invention include a scrubbing and mopping machine which may be propelled over the floor or other thing being scrubbed and which is provided with a brush which may loosen and start the dirt,
30 and with a mop in the form of an endless band, and the machine is also provided with means for supplying clean water to be used in scrubbing and means for wringing, the whole being adapted to be readily propelled
35 over the surface being cleaned.

While various embodiments of our invention may be made which shall show the general features of the invention adapted for various purposes, we have illustrated in the
40 accompanying drawings the preferred embodiment, in which there is a base consisting of a frame having side pieces A, A', which are preferably of metal, such as cast iron or otherwise, and which are united by suitable
45 cross-pieces B, B'. Mounted on this base, and preferably formed therewith, are the supports C, C', which are preferably arched and furnish a support for the other parts of the device.

50 Pivoted to the base pieces are the standards

D, and these are preferably provided with means whereby their upper ends may be adjustably attached to the braces C, C', and we have shown the parts slotted and provided with a thumb screw c, whereby the ends of
55 the standards may be tilted slightly to one side or the other in order to take up slack in the mop in the manner hereinafter set forth. Mounted in these standards are the wringing
60 rollers E, F, the upper one E, preferably being in fixed bearings and the lower one F, preferably being mounted on spring actuated bearings f, mounted in these standards and intended to press the roll F, upward against
65 the lower roll E. Mounted in fixed bearings of the frame is another roll G, the periphery of this roll preferably projecting below this frame, substantially as indicated, and around
this roll G, and the roll E, passes the mop H, and this mop, which is endless, is made of suffi-
70 cient thickness and of proper material to be somewhat elastic and sponge-like so as to absorb and carry water.

Mounted on the frame is a receptacle I, adapted to carry a supply of clean water,
75 which may be hot or cold and mixed with soap or other compound if desired, and this receptacle is provided with outlets i, through which the water can percolate or pass to
80 supply the brush. Also mounted on the frame is a receptacle K, arranged below the wringing rolls E and F, and adapted to receive the water pressed out of the mop. The forward
portions L, of the base pieces are hinged as shown, and mounted in these portions is a
85 brush M, which is intended to precede the roll G, and to serve to loosen the dirt and particles from the floor. This brush is protected and partially covered with a shield N, and
90 this prevents spattering the surrounding objects with the dirt thus loosened. Mounted on this shield N, is a block or plate O, preferably of some elastic material, as rubber, and when the brush is raised to the position shown
95 in dotted lines, Fig. 1, this block comes opposite the openings i, in the reservoir and prevents the flow of water therethrough. This brush may be adjusted in its various positions by any suitable means, and we have
100 shown a rod P, having a series of pin holes

adapted to fit a pin *p*, on the the top of the reservoir to secure the brush in its raised position.

The device is supported on the wheels Q, 5 which are mounted on either side of said frame and serve as a propelling means for the mop and brush and we have shown one of the wheels as provided with a gear R, taking into a smaller gear R', on the shaft of the roller 10 E, and transmitting motion to the mop. Mounted on the shaft of the roller G, is a pinion S, which connects through an idler pinion S', with a pinion S², on the shaft of the brush and these pinions are preferably arranged so 15 that the brush will rotate more rapidly than the movement of the mop. The frame is further supported on wheels T, which are preferably mounted in adjustable bearings *t*, secured to the base pieces so that the pressure 20 of the mop upon the floor can be adjusted.

The whole device may be provided with a suitable handle U, by means of which it may be propelled.

Such being the preferred construction of 25 the device, its operation will be readily understood. The brush M, being properly adjusted and fluid being supplied to the reservoir I, the device is moved over the floor and through the medium of the wheels Q, and connecting 30 mechanism, the mop and brush are moved to scrub and mop the floor and the dirty water is expelled from the mop into the receptacle K. It is sometimes desirable that the mop and brush rotate only when the machine 35 moves in one direction. In order to do this we provide a spring pressed pawl V, as shown in Fig. 4 which is mounted on one of the wheels Q, and is adapted to engage the gear R, which in this instance is disconnected from 40 the driving wheel, and cause it to rotate with the wheel when the machine is moved forward in one direction, while when it is moved in the other direction the pawl will slip over the teeth of the gear. As the device moves 45 back and forth over the floor the scrubbing and mopping operation goes on until completed when the forward frame is turned upward and the cushion O will close the orifices *i*, and prevent the water flowing.

50 The parts are made adjustable as indicated, so that the mop and brush may bear upon

the floor with varying pressure, and the pressure on the mop between the wringing rollers may also be adjusted, and the whole constitutes an effective device for the purpose in- 55 tended.

What we claim is—

1. A scrubbing and mopping device comprising a base frame having end supports, a reservoir for clean water mounted thereon 60 and a tank for dirty water, a roll mounted on the frame and adapted to bear on the floor, standards supporting the wringing rolls, a mop supported on the rolls, the standards being adjustable, substantially as described. 65

2. In a scrubbing and mopping device, the combination with the main frame carrying the water tanks and the mop, of an extended frame pivotally mounted on the main frame, a brush mounted on said extended frame, a 70 hood for the brush and means for adjusting the frame and brush, substantially as described.

3. In a scrubbing and mopping device, the combination with the main frame, wheels 75 therefor, the adjustable standards the wringing rolls therein, the mop passing over one of said rolls and over a roll mounted in the main frame, a tank mounted over the mop and having orifices, an extension of the main frame 80 carrying a cushion adapted to close the orifices, substantially as described.

4. In a scrubbing and mopping device, the combination with the main frame, the wheels supporting the main frame, the adjustable 85 standards supported in said frame, the wringing rolls mounted in the standards, a roll mounted in the main frame, a mop passing round said roll and one of the wringing rolls, a pivoted frame connected to the main frame, 90 a scrubbing brush mounted therein, connections between the scrubbing brush and mop roll and connections between the wheels and wringing rolls, substantially as described.

In testimony whereof we have signed our 95 names to this specification in the presence of two subscribing witnesses.

CHARLES W. SHIVELY.
SQUIRE W. BARCLAY.

Witnesses:

J. E. FLANAGAN,
KIRK HARTMAN.