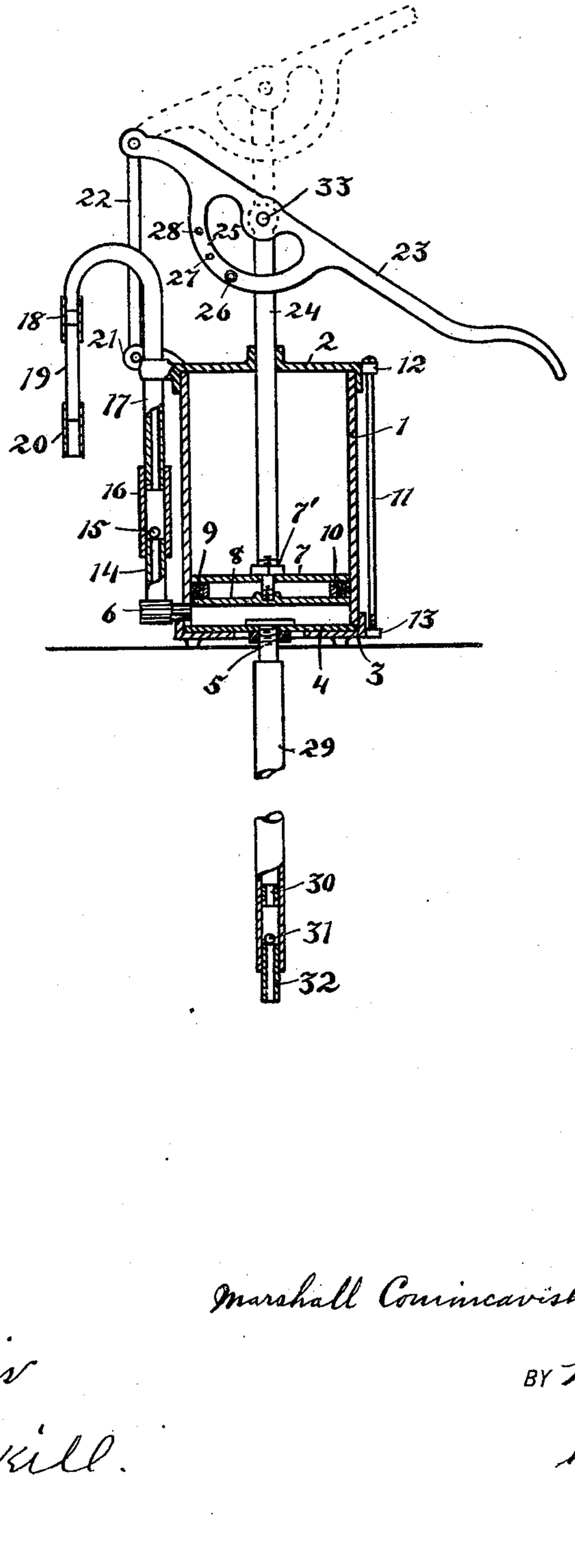
No. 648,195. Patented Apr. 24, 1900.

M. COMINCAVISH.

SELF MEASURING PUMP FOR FLUIDS.

(Application filed Feb. 13, 1899.)

(No Model.)



WITNESSES:

E. V. Harris

Kyle Gaskill.

Marshall Cominicavish INVENTOR

BY W. J. Burns

his ATTORNEY.

UNITED STATES PATENT OFFICE.

MARSHALL COMINCAVISH, OF FORT WAYNE, INDIANA.

SELF-MEASURING PUMP FOR FLUIDS.

SPECIFICATION forming part of Letters Patent No. 648,195, dated April 24, 1900.

Application filed February 13, 1899. Serial No. 705,374. (No model.)

To all whom it may concern:

Be it known that I, MARSHALL COMINCAVISH, a citizen of the United States, residing at Fort Wayne, in the county of Allen and State of Indiana, have invented certain new and useful Improvements in Self-Measuring Pumps for Fluids; 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 drawing, and to the figures of reference marked thereon, which forms a part of this specification.

My invention relates to improvements in self-measuring pumps for fluids wherein the piston is actuated by a handle having a sector and a number of stops for limiting the stroke of said piston; and the object of my improvement is to afford means for measuring predetermined quantities of fluid acids and other liquids.

I accomplish my object by the construction illustrated in the accompanying drawing, in which the figure is a vertical section showing the general arrangement of parts.

Referring now to the numerals of reference, 1 is a vertical cylinder constructed of rubber or other acid-proof material. A rubber disk 4 rests in the base 3 and serves to close the bottom of the cylinder 1. The top 2 fits over the top of the cylinder and is held in place by the bolts 11, which pass through the lugs 12 and enter the lugs 13, thus clamping the cylinder between the top and base.

The piston-head consists of the rubber plates 7 and 8, between which are held the ring 10 and packing 9. The piston-rod 24 passes from its pivotal connection with the handle (shown at 33) downward through the top 2 and is screwed into the lower plate 8. A nut 7′ is driven down upon the plate 7 to hold the same rigidly in position upon the ring 10 and packing 9.

The handle 23 is pivoted at its end to the elevated rod 22, which extends from the lug 21, to which it is pivoted. A segment 25 depends from the handle 23 and ranges from the pivot 33. The segment is slotted and rides astride the piston-rod 24. The holes 27 28, &c., pass through both sides of the segment, and the pin 26 is adapted to be placed therein. When the handle is raised, the segment is moved relative to the piston-rod and the pin 26 comes into contact with the piston-rod, thereby stopping the upward movement of the handle at a point according to the position of the pin.

A rubber sleeve 5 is secured to the disk 4 and leads into the suction-hose 29. At the lower end of the said suction-hose is arranged an inlet-valve 31, which rests upon a seat consisting of the tube 32, extending in the end of said hose. The tube 30 is secured above the valve 31 to limit its movement.

A hollow plug 6 opens into the lower end of the cylinder 1 and connects with the pipe 14, which enters the valve-case 16 and forms a seat for the outlet-valve 15. From the valve-case 16 extends a gooseneck-pipe 17, to the end of which is connected a detachable glass tube 19. The said glass tube is secured by the tube 18, which fits over the end of the gooseneck and the upper end of the glass tube. From the lower end of the glass tube 19 extends a compressible tube 20.

The pump may be mounted upon a shelf or other convenient place and the suction-pipe led into the fluid-containing vessel. In operating the pump the handle 23 is raised until the pin 26 strikes the piston-rod. By the movement of the piston-head the fluid is drawn into the cylinder through the suction-pipe. Upon the downward movement of the handle the piston-head forces the fluid from the cylinder through the outlet-pipe.

The glass tube 19 is used for examining or sampling the fluid. This may be easily done by squeezing the tube 20 shut with the fingers and running a small quantity of fluid into the tube. By detaching the tube from its fastening the fluid may be tasted or otherwise tested.

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

A pump for fluids, comprising a cylinder containing a plunger and piston-rod; a piv-

oted handle ranging over said cylinder, and being connected with said piston-rod; a segment, integral with said handle, and ranging from the juncture of said handle and piston-rod, the said segment having a pin adjusted therein, which pin is adapted to come into contact with said piston-rod when said handle is raised, and thereby estop further upward movement of said piston-rod and plunger, substantially as shown and described.

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

MARSHALL COMINCAVISH.

Witnesses:

JOHN DREIBELLUIS,

S. HEINE.