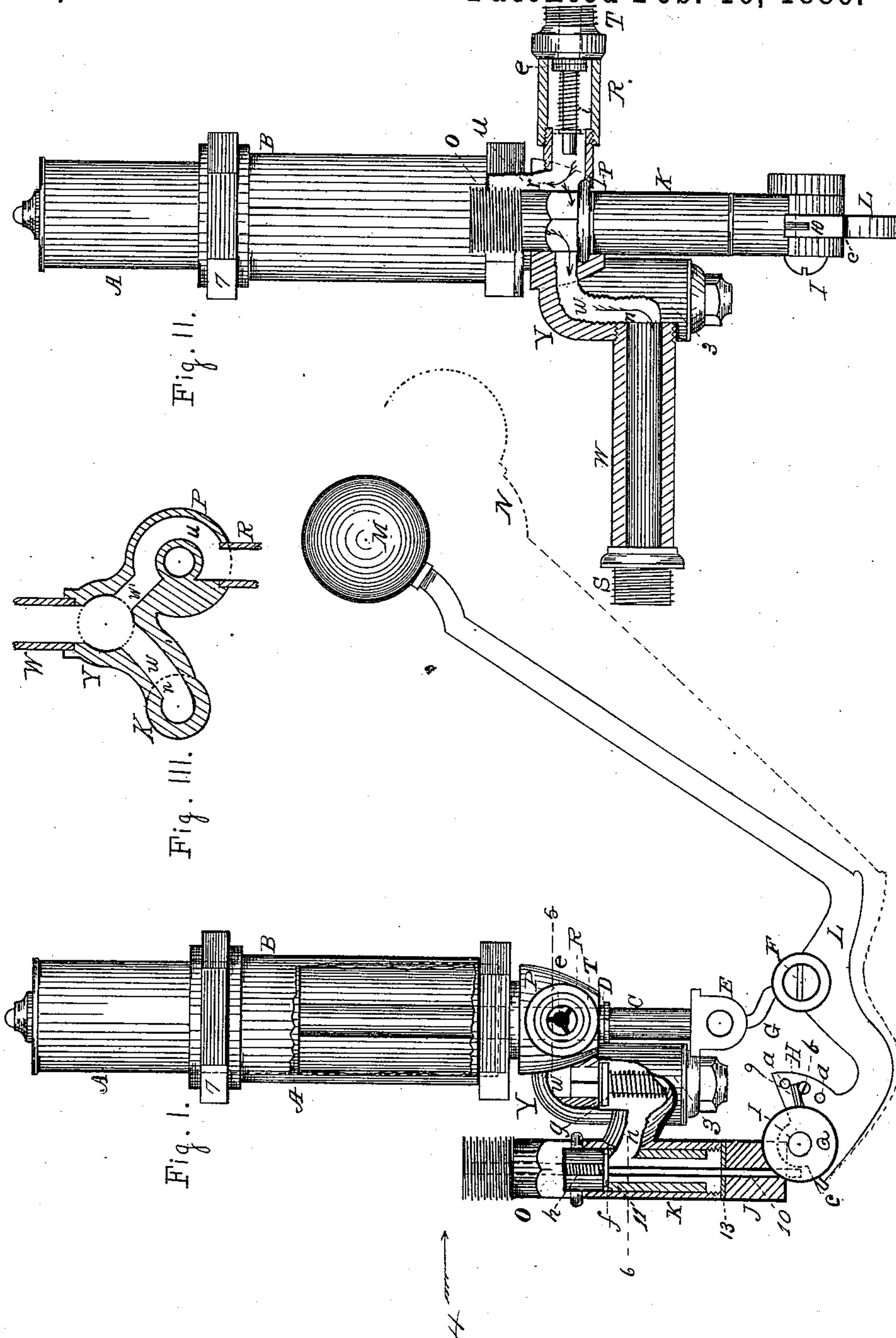


(No Model.)

P. PALM.
SIRUP GAGE.

No. 336,151.

Patented Feb. 16, 1886.



WITNESSES:

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PETER PALM, OF CHICAGO, ILLINOIS, ASSIGNOR TO WILLIAM E. HAFNER
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SIRUP-GAGE.

SPECIFICATION forming part of Letters Patent No. 336,151, dated February 16, 1886.

Application filed October 12, 1885. Serial No. 179,738. (No model.)

To all whom it may concern:

Be it known that I, PETER PALM, a citizen of the United States, and a resident of Chicago, county of Cook, and State of Illinois, have invented new and useful Improvements in Sirup-Gages, of which the following is a specification, reference being had to the accompanying drawings, illustrating the invention, in which—

Figure I is a broken side elevation of a mechanism known as a "sirup-gage," and embodying my invention. Fig. II is a broken elevation of the end of Fig. I, looking in the direction indicated by dart 4; Fig. III, a horizontal sectional plan of the diverting-chamber.

This invention has for its object the providing of more durable and efficient mechanism for operating the pistons of sirup-gages. The gages now employed for this purpose are constructed with side connecting-rods to operate the piston, whereby there is a material lateral strain on the piston or plunger by the side strain of such connections, causing the parts to bind and the piston to jump or have a hitching movement, which is very injurious to the parts and the working of the gage. My piston having a central connection at its lower end works easily, and is wholly free from the objections noted, and is consequently better adapted to bottling purposes, and it can be operated by less power.

P is the diverting-chamber, and in it is formed a passage, *u*, leading from the sirup-pipe R to the cylinder B, the direction of the sirup being indicated by dart *r*. W' is a continuation of pipe or passage *u*, and leads into pipe W by passing through the top of valve-chamber Y³. The passage *n w* permits soda-water to pass from pipe K through said valve-chamber and out at pipe W. Vertically through the diverting-chamber P is formed the bearing for the piston-rod C, and to its top part, by means of a screw and suitable packing-box, 12, is secured the cylinder B, and in this cylinder is placed the piston A, suitably packed at 7, so that when the rod

C is packed at the bottom portion of P at D the cylinder is air-tight, except the passage *u*. A sirup-pipe, R, connects with the chamber P, a pipe, W, with the valve-chamber Y³, and a pipe, K, also connects with the said chamber, and in pipe R is placed a spring-valve, *e i*, with its seat facing inward, a valve, *f h*, placed in the pipe K with its seat facing upward, and a valve, *g*, placed in the chamber Y³ with its seat facing downward, the stem 10 of the valve *f h* projecting down through a guide, J, and packing 13 at the lower end of pipe K. To the lower end of the guide J is cast solid a lug, Q, which is made to form a joint-connection with the end of lever L by means of a pin, I, Fig. I. A rod, G, is jointed to the lever L at F, and to the piston-rod C at E, whereby the movement of the lever L will give to the piston the desired movement. A gage-plate, H, cast solid to the lever L, is provided with two or more holes, in either of which a screw, *b*, may be turned to strike against a pin, 9, on the lug Q, and regulate the charge of sirup by an upward stop of the lever.

A lug, *c*, is made to project out from the end of lever L for lifting the valve *f h* by its upward pressure on the lower end of the stem 10.

The pipe R, by its connection T, is to be secured to the sirup-cylinder; the pipe K, by connection O, to the soda-foundation; and the pipe W, by its connection S, to the bottling head of the machine. When this is done, the proper elevation of the lever L will charge the cylinder with sirup. The bringing down of the lever in the direction of dotted lines N will exhaust the cylinder, and the valve *f h* will be opened by the lug *c*, and the valve *g* closed above the pipe W, and admit soda-water into pipe W through the medium of chamber Y³.

In the foregoing I have shown how the various pipes, passages, and valves to form a complete sirup-gage can be combined with my improvement in operating pistons; but as the location, style, and form of such parts can be changed or modified within the well-

known art, I do not claim them, but rely on the claim to cover the novelty of the invention.

I claim as new and desire to secure by Letters Patent—

The vertical cylinder B, supported on top of the diverting-chamber P, and said chamber

having a central bearing for guiding the rod C of piston A, in combination with the lever L and connecting-rod G, as specified.

PETER PALM.

Witnesses:

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