

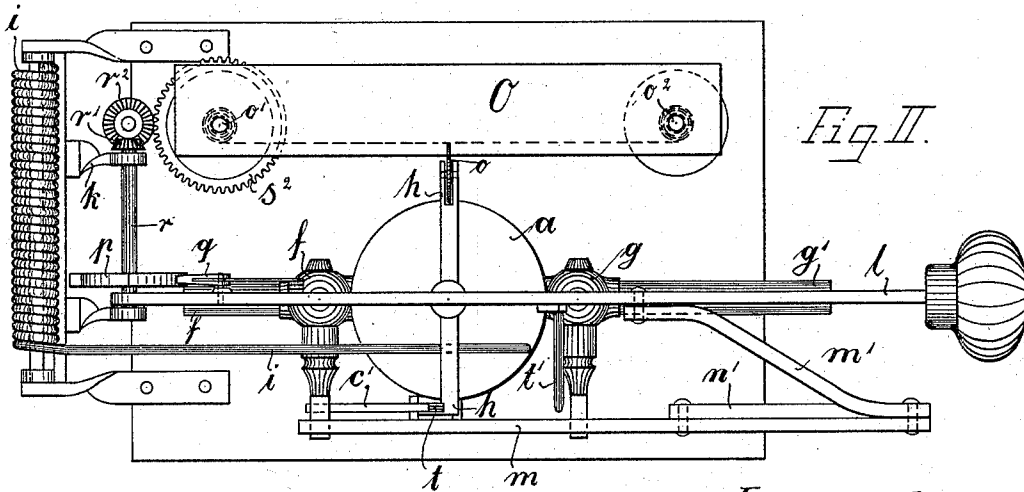
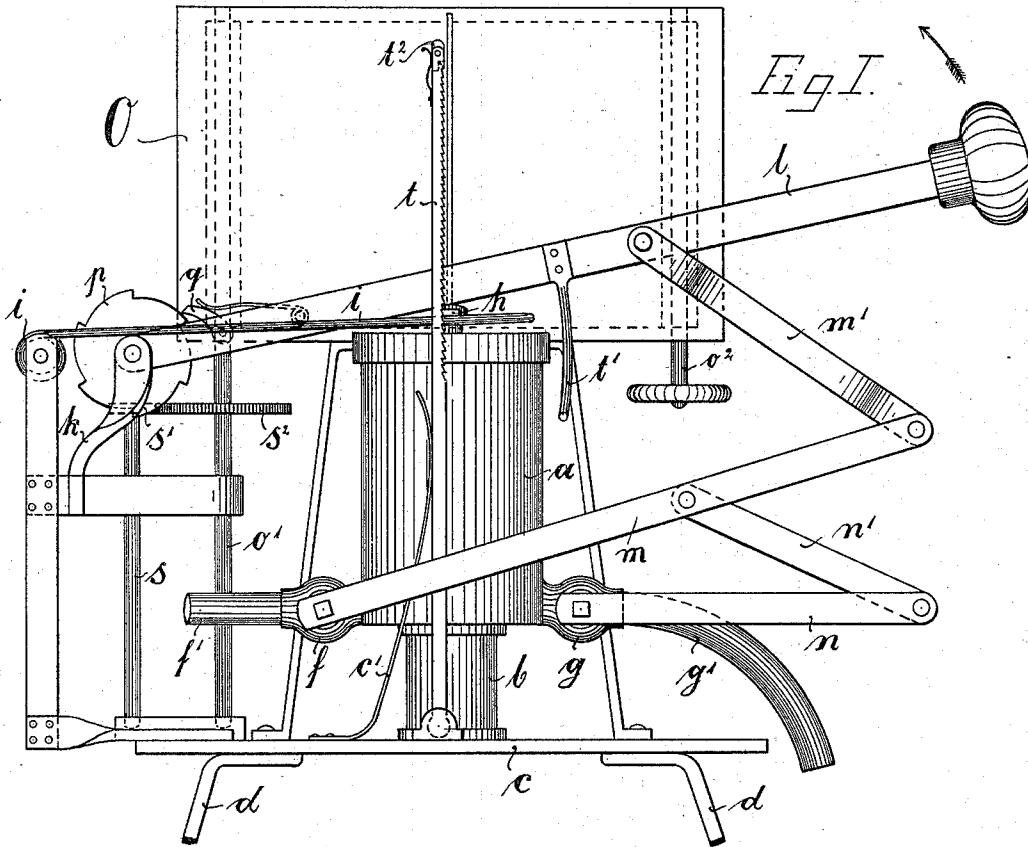
(No Model.)

2 Sheets—Sheet 1.

A. G. H. OEHMS.
RECORDING APPARATUS.

No. 573,478.

Patented Dec. 22, 1896.



WITNESSES:
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(No Model.)

2 Sheets—Sheet 2.

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Fig. IV.

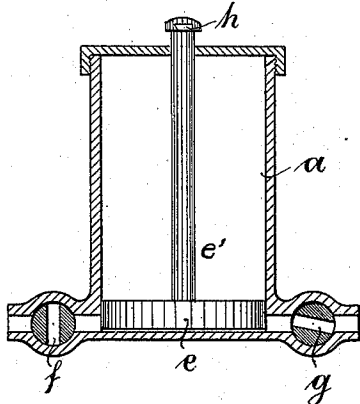
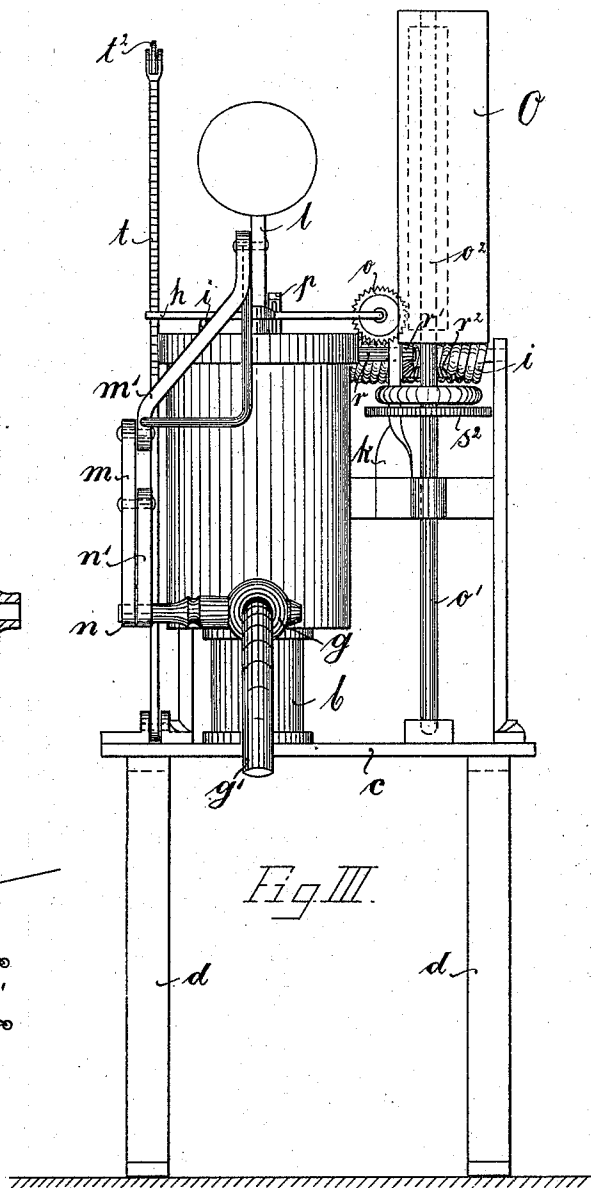
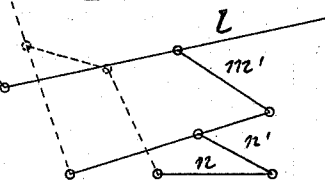


Fig. V.



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UNITED STATES PATENT OFFICE.

AUGUST GUSTAV HERMANN OEHMS, OF BERLIN, GERMANY.

RECORDING APPARATUS.

SPECIFICATION forming part of Letters Patent No. 573,478, dated December 22, 1896.

Application filed July 15, 1895. Serial No. 556,096. (No model.)

To all whom it may concern:

Be it known that I, AUGUST GUSTAV HERMANN OEHMS, a subject of the King of Prussia, Emperor of Germany, and a resident of Berlin, Germany, have invented certain new and useful Improvements in Recording Apparatus, of which the following is a specification.

The object of my invention is to provide a new and improved apparatus for recording quantities of wine, beer, kerosene, &c., drawn from suitable receptacles, which apparatus produces a line or mark on a suitable movable paper band every time a quantity of liquid is drawn, said mark corresponding in length exactly with the quantity of liquid drawn, so that the apparatus prevents all deception or fraud by employees.

In the accompanying drawings, forming a part of this specification, and in which like letters indicate like parts in all the figures, Figure 1 is a front view of my improved controlling device for vending liquids. Fig. 2 is a plan view. Fig. 3 is a side view of the same. Fig. 4 is a vertical transverse sectional view through the measuring-cylinder and the cocks on the same. Fig. 5 is a diagram view illustrating the two end positions of the levers for shifting the cocks.

The cylinder *a*, which serves for measuring the liquids, is secured on the standard *b* on the table *c*, having legs *d*. The piston *e* is mounted in the cylinder *a* and permits the liquid to enter the cylinder through the cock *f*, the liquid passing out of the cylinder through the cock *g*. A cross-bar *h* is connected with the upper end of the piston-rod *e'* and the free end of a powerful helical spring *i* exerts an upward pressure on said cross-bar and tends to raise the piston and keep it raised. The hand-lever *l*, pivoted on brackets *k* of the table *c*, rests upon the upper end of the piston-rod *e'* and serves for forcing the piston downward. The said lever also serves for opening and closing the cocks *f* and *g* by means of the levers *m* and *n* and the connecting-rods *m'* and *n'*.

By means of a tracing-wheel *o*, mounted on one end of the cross-bar *h*, the movements of the piston *e* are traced on a paper band contained in a casing *O*, means being provided for shifting the paper band after each stroke

of the lever *l*. The shifting of the paper is also produced from the lever *l* by means of the ratchet-wheel *p*, which is mounted on the shaft *r* of the lever *l* and engaged by a spring-pressed pawl *q* on the lever *l*. By turning the ratchet-wheel *p* and the shaft *r* the bevel cog-wheels *r'* and *r''* and the shaft *s* are rotated, and from the latter the shaft *o'* in the casing *O* is rotated by means of the toothed wheels *s'* and *s''*, to which shaft *o'* one end of the paper band is attached. Within the casing the paper band is unwound from the shaft *o''* and wound upon the shaft *o'*.

The casing *O* is provided with a slot in which the tracing-wheel *o* can move up and down.

As the paper band should not be shifted as long as the perforating-wheel is engaged with the same, the ratchet-wheel *p* and pawl *q* are so arranged that the ratchet-wheel is not turned until the lever *l* has completed the greater part of its upstroke.

The cocks *f* and *g* are so arranged that the cock *f* is closed when the lever *l* is in the position shown in Fig. 1 and the cock *g* is partly opened. By the movement of the lever *l* in the direction of the arrow the cock *g* is first opened completely and then closed gradually. Thereupon the cock *f* is opened gradually, the cock *g* remaining closed.

So as to prevent the piston *e* from rising under the action of the spring *i* until the cock *g* has been fully closed and the cock *f* opened to a certain extent, a ratchet-bar *t*, pivoted on the plate *c* and acted upon by a spring *c'*, engages a sharp edge of the cross-bar *h*.

The lever *l* is provided with an angular arm *t'*, which at the proper time presses the ratchet-bar *t* to one side, so as to permit the spring *i* to move the piston *e* upward. Thereby the cylinder is filled with liquid, passing to the same through the pipe *f'*. When the piston is in its highest position, the tracing-wheel *o* is disengaged from the paper band. If the lever *l* is moved upward still farther, the pawl *q* causes a shifting of the paper band in the manner above described. If the lever *l* is pressed downward, the cock *f* is closed and the pawl *q* slides over the ratchet-wheel *p*. The angle-arm *t'* strikes against the hinged end piece *t''* of the ratchet-bar *t* and tilts the same, and when the angle-arm *t'* slides off

said end piece *t* the latter is brought back into its original position by a flat spring acting on it. When the angle-arm *t'* is moved in the reverse direction, the end piece *t*² cannot be tilted, as can be seen from the drawings. After the angle-arm *t'* has passed the ratchet-bar *t* the cock *f* is closed and the cock *g* is beginning to open. The quantity of liquid delivered corresponds exactly to the distance traveled by the piston, and this distance is recorded by the tracing-wheel *o* on the paper band in the casing *O*.

It is evident that by observing the number and lengths of marks made by the wheel *o* on the paper band one can tell how often and how much liquid has been drawn.

In most saloons different quantities of liquor are sold for the same price accordingly as they are to be drunk on or off the premises, and the several rows of perforations or marks will also show whether the liquor was sold to be drunk on the premises or not, if for each price and the different purposes for which the sale was made correspond with marks of different sizes.

If, for example, certain quantities of liquids are sold for five, ten, and fifteen cents on the premises and for ten and twenty for consumption outside of the premises, marks of five different lengths are used and the band of paper is divided into five parts by longitudinal lines. The lever *l* is thrown up very far, even for small quantities of liquid, as appears from Fig. 5, and can turn the ratchet-wheel *p* before the tracing-wheel begins to act. The said lever *l* does not act on the tracing-wheel, but serves to release the locking devices of the spring-pressed piston after said lever *l* has traveled a certain distance, whereupon the ratchet-bar *t* is tripped and the spring-pressed piston released. The lever *l* is used to press the piston down again, which piston is locked in lowered position automatically. The lever *l* before being pressed down, however, has moved upward far enough to rotate the ratchet-wheel *p*.

After the band has been unwound the prices can be written at the several marks and then added.

My invention is not changed materially if the lever and other actuating parts are replaced by other mechanism, as it is only essential that the movements of the piston are correctly recorded and a mark of different

length used for each different quantity of liquid drawn.

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

1. In an apparatus for recording quantities of liquid drawn, the combination with a measuring vessel, of an inlet and an outlet cock for the same, a piston in said vessel, which piston is moved up and down as the vessel is filled and emptied, a lever for depressing the piston means for recording the movements of the piston on a paper band and means for shifting the band means for operating the inlet and outlet cocks from said lever successively, substantially as herein shown and described.

2. In an apparatus for recording quantities of liquids drawn, the combination with a measuring vessel, of an inlet and an outlet cock on the same, levers for operating said cocks, in such manner that the inlet-cock is closed when the outlet-cock begins to open and the outlet-cock is closed when the inlet-cock begins to open, a piston in the measuring vessel, which piston can be depressed by the same levers that serve for manipulating the valves means for recording the movements of the piston on a paper band and means for shifting said band successively, substantially as herein shown and described.

3. In an apparatus for recording quantities of liquid drawn, the combination with a measuring vessel, of an inlet-cock and an outlet-cock on the same, a piston in the measuring vessel, a rod on the piston, a cross-bar on said piston-rod, a ratchet-bar engaging said cross-bar and holding it for a time, a lever for operating the cocks, an angle-arm on said lever for throwing out the ratchet-bar, a spring for raising the piston, means for recording the movements of the piston on a paper band and means for shifting the paper band, successively, substantially as herein shown and described.

In testimony that I claim the foregoing as my invention I have signed my name, in presence of two witnesses, this 29th day of June, 1895.

AUGUST GUSTAV HERMANN OEHMS.

Witnesses:

WM. HAUPT,
HERMANN OHLERT.