No. 828,371. PATENTED AUG. 14, 1906.

A. BAUMANN.

ELECTRICITY METER.

APPLICATION FILED OCT. 27, 1903.

2 SHEETS—SHEET 1.

Fig. 1.

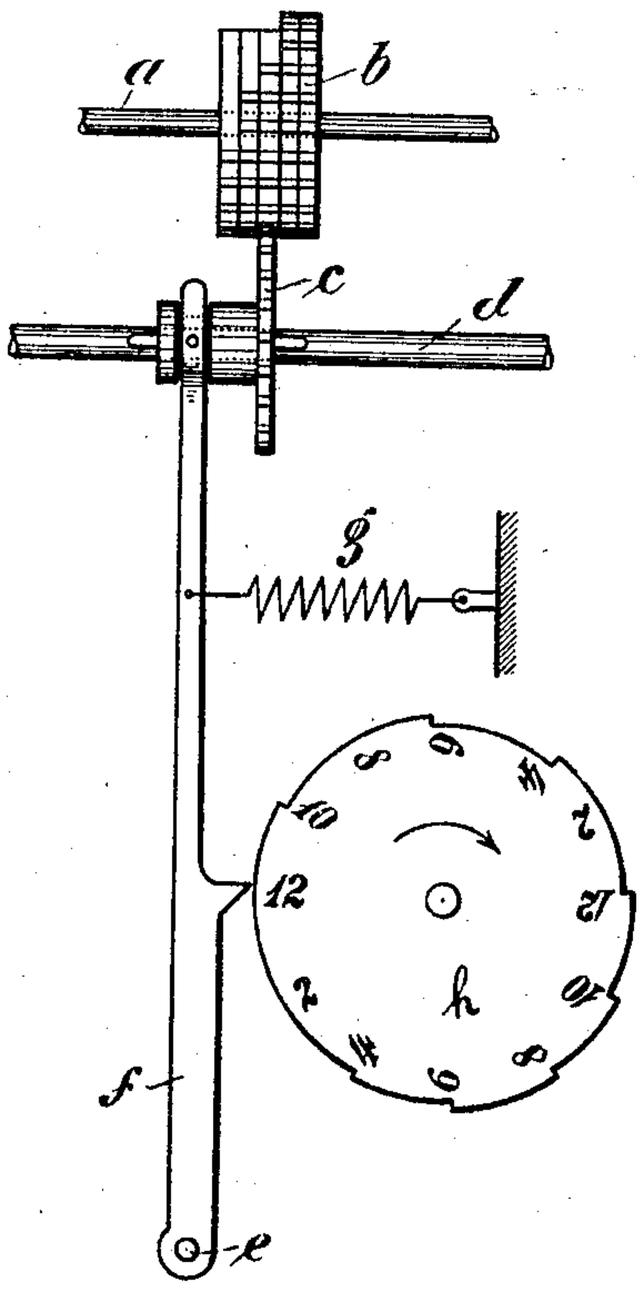

Fig. 2.

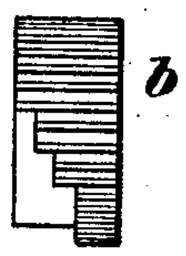

Fig. 3.

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2 SHEETS—SHEET 2.

Fig. 5.

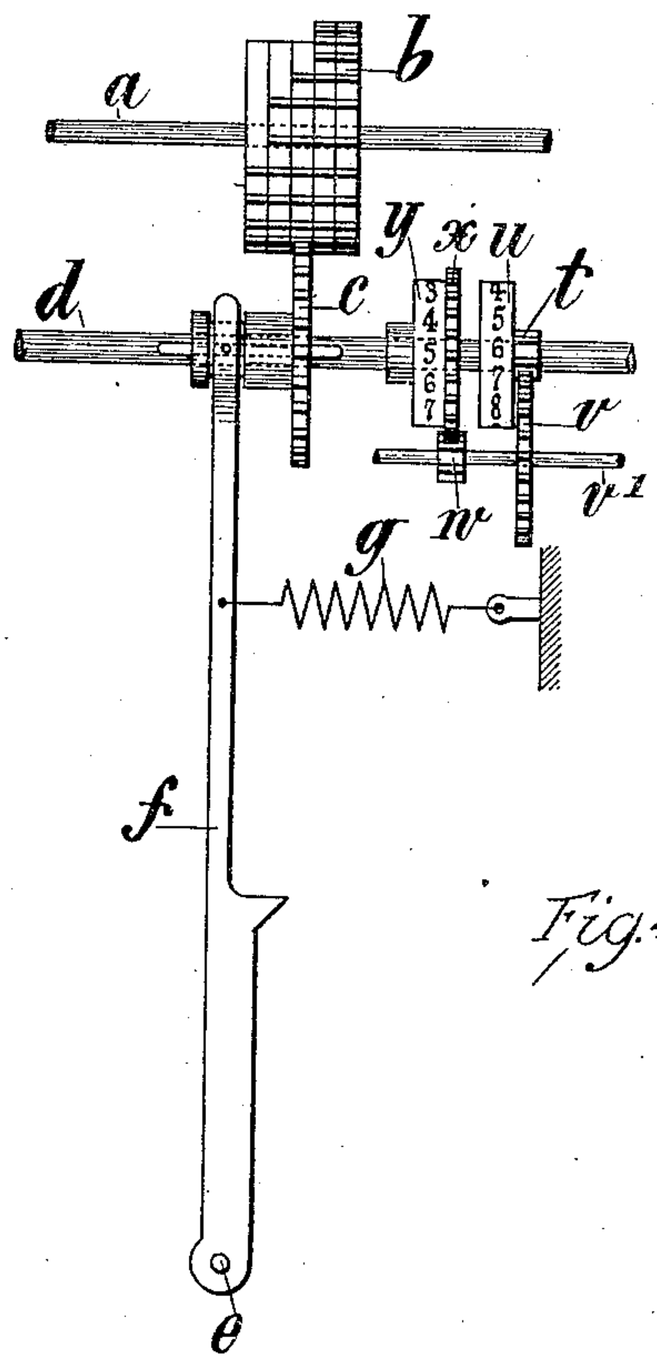


Fig. 6.

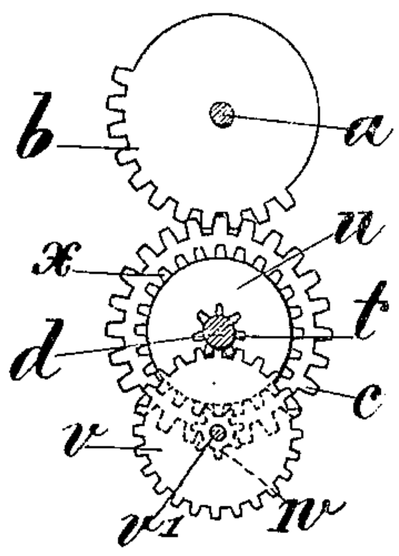
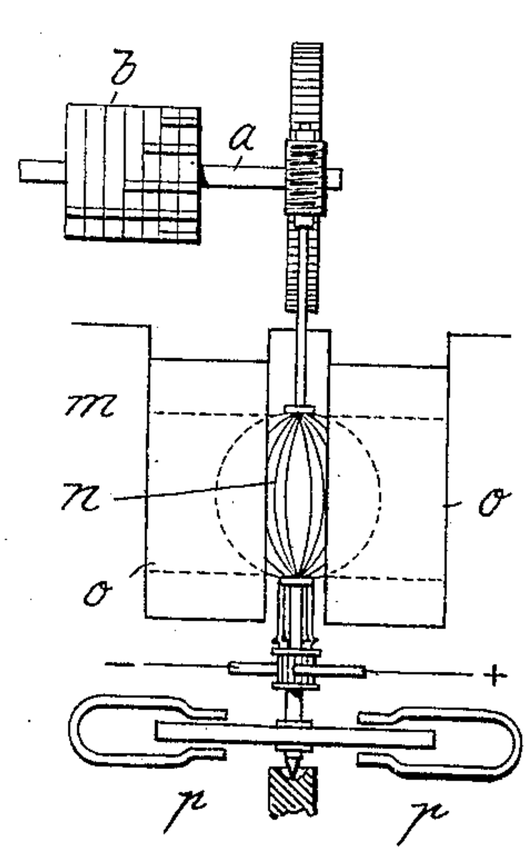


Fig. 4.



WITNESSES

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UNITED STATES PATENT OFFICE.

ADRIAN BAUMANN, OF ZURICH, SWITZERLAND.

ELECTRICITY-METER.

No. 828,371. Specification of Letters Patent. Patented Aug. 14, 1906.

Application filed October 27, 1903. Serial No. 178,748.

To all whom it may concern:

Be it known that I, ADRIAN BAUMANN, a citizen of the Republic of Switzerland, residing in Zurich, in the canton of Zurich, Switzerland, (whose post-office address is No. 80 Winterthurerstrasse, Zurich,) have invented certain new and useful Improvements in Electricity-Meters; and I do hereby 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 drawings, and to letters of reference marked thereon, which form a part of this specification.

I have applied for patent in Germany on March 31, 1903.

This invention has for its object an electricity-meter for different prices of the unit.

In order to be enabled to deliver electricity according to the time of the day at different prices and to read off directly the total price of the sold energy or a proportionable number in relation thereto, I connect an electricity-meter of any known kind to simultaneously indicate the consumption of electricity to a counter by means of a changeable gearing.

In the annexed drawings, Figure 1 is partly an elevation and partly a sectional view of the preferred form of execution of my invention, and Fig. 2 is an end view of the gearing. Fig. 3 is a modified form of the gearing, and Fig. 4 is a view of the meter. Fig. 5 is an elevation, and Fig. 6 is an end view of the counter.

a is a shaft operatively connected with an electricity-meter *m*, Fig. 4, having an armature *n*, hollow bobbins *o*, and braking-magnets *p*. Upon this shaft are rigidly mounted several toothed wheels *b* of the same pitch, forming a rotating driver. One of the wheels is fully toothed on its periphery, while the other wheels have only a part of their peripheries toothed, the number of teeth on each wheel varying from wheel to wheel. One of these wheels, but not always the same, meshes with a toothed wheel *c*, the shaft *d* of which is operatively connected with a counter.

On the shaft *d* is rigidly mounted a toothed pinion *t* and a drum *u*, having figures. The pinion *t* meshes with a toothed wheel *v*, fixed on a shaft *v'*. On this shaft is also rigidly mounted a toothed pinion *w*, meshing with a toothed wheel *x*, loosely fitted on the shaft *d* and having a drum *y* with figures. The parts *u* and *x* form the counter. Two immovably fixed pointers (not shown) point to the middle figures of the drums, or a window in a plate may be provided which will show only these figures.

The wheel *c* is rigidly mounted in the direction of rotation upon the shaft *d*, but it is capable of being axially shifted thereupon. a lever *f*, having its fulcrum at *e*, embraces the grooved hub of the wheel *c* and is forced by a spring *g* against a dial-plate *h*, having steps on its periphery. This dial-plate is operatively connected with a clockwork which imparts to the dial a jerk-like movement. Thus when lever *f* moves from one step of the dial-plate to another the wheel *c* will be thrown out of gear, with one wheel *b* into gear with the next one, so that for the same consumption of electricity another working of the counter will be obtained.

Instead of the different wheels *b* a single wide wheel of the same shape as the totality of the wheels *b* may be used, as shown in Fig. 3. The teeth of this wheel are of the same pitch, but of different length in axial direction, the toothed portion having the shortest teeth extending all the way round said wheel.

What I claim is—

1. The combination with an electricity-meter of two or more wheels operatively connected with the said electricity-meter, of a counter to which always one of the said wheels is operatively connected on a portion of its periphery and of means for selecting always one of the said wheels for the action upon the counter, substantially as and for the purposes specified.

2. The combination with an electricity-meter of two or more wheels operatively connected with the said electricity-meter, of a counter to which always one of the said wheels is operatively connected by a portion of its periphery and of a rotatable dial-plate having steps on its periphery for selecting one of the said wheels for driving the counter, substantially as and for the purposes specified.

3. The combination with an electricity-meter, two or more wheels operatively connected with the said electricity-meter and a wheel fully toothed at its periphery rigidly connected with these wheels, of a counter to which always one of the said wheels is operatively connected on a portion or on the totality of this periphery and of means for select-

ing always one of the said wheels for the action upon the counter, substantially as and for the purpose specified.

4. The combination with an electricity-meter of a rotating toothed driver operatively connected with the said electricity-meter and having portions of different operative length, of a counter to which always one of the different operative portions of the said driver is operatively connected and of means for selecting always one of the said operative portions for the action upon the counter, substantially as and for the purpose specified.

5. The combination with an electricity-meter of a rotating driver operatively connected with the said electricity-meter and having portions of different operative length, of a counter to which always one of the different operative portions of the driver is operatively connected and of a rotatable dial-plate having steps on its periphery for selecting one of the operative portions for driving the counter, substantially as and for the purpose specified.

6. The combination with an electricity-meter of a rotating driver having a toothed periphery of different operative lengths and being operatively connected with the said electricity-meter, of a counter to which always one step of the driver is operatively connected and of means for selecting always one of the said steps of the driver for the action upon the counter, substantially as and for the purpose specified.

In testimony that I claim the foregoing I have hereunto set my hand this 16th day of October, 1903.

ADRIAN BAUMANN.

Witnesses:
A. LIEBERKNECHT,
HERMANN HUBER.