

No. 702,734.

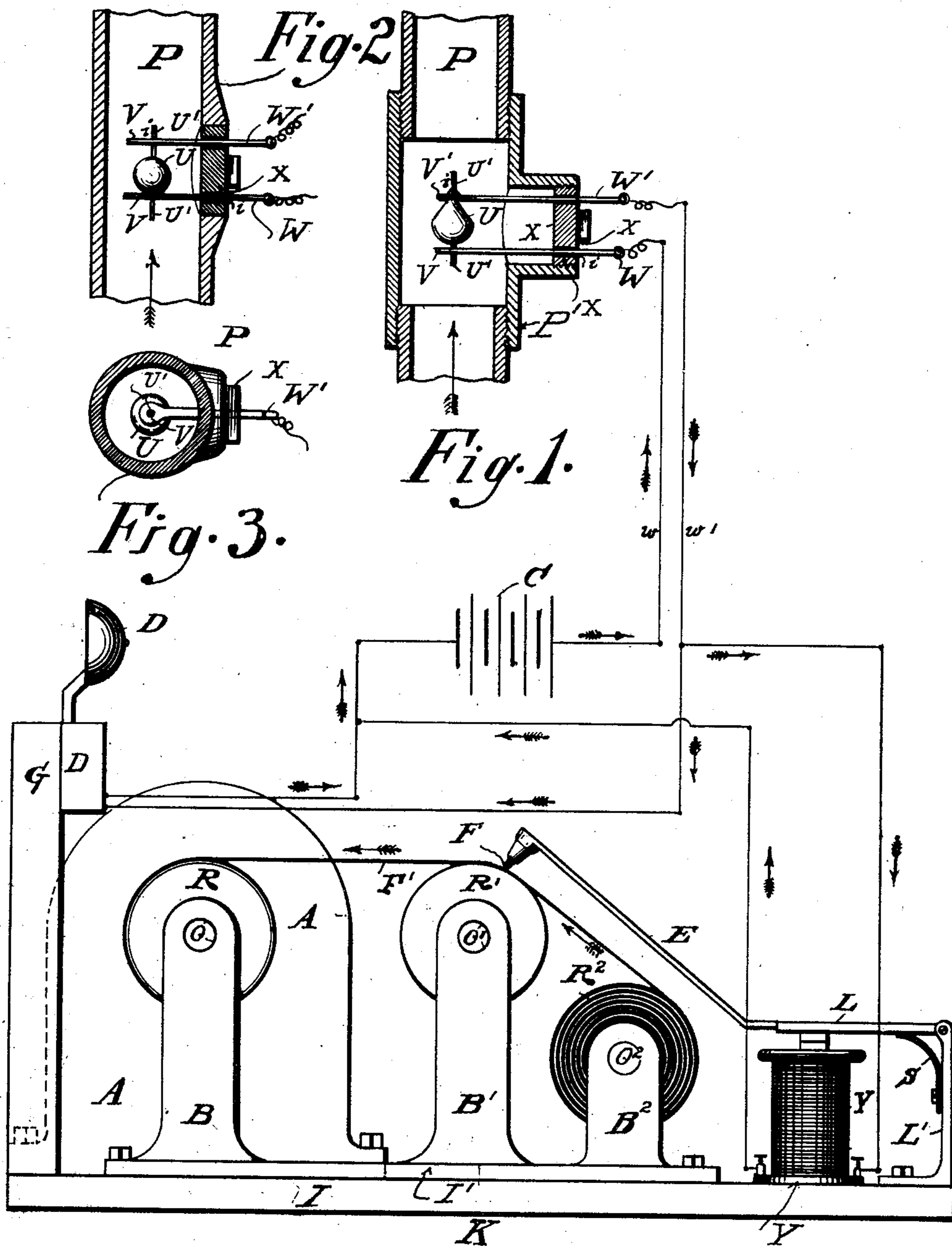
Patented June 17, 1902.

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ELECTRIC WATER RECORDING DEVICE.

(Application filed Mar. 15, 1901.)

(No Model.)

2 Sheets—Sheet 1.



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INVENTORS

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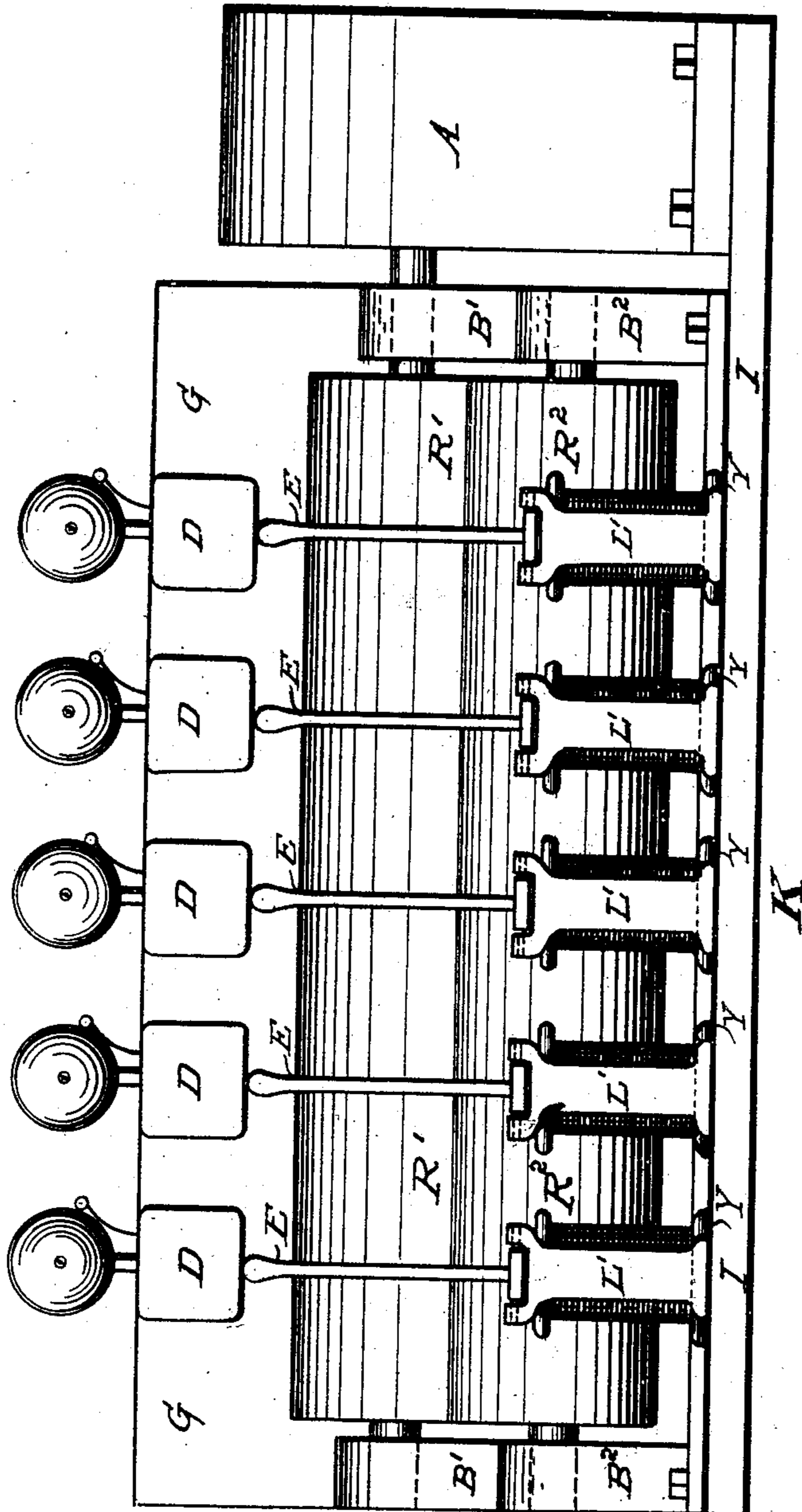
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Fig. 4.



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UNITED STATES PATENT OFFICE.

WILLIAM H. KELLY AND ALFRED TSCHINKEL, OF NEW YORK, N. Y.

ELECTRIC WATER-RECORDING DEVICE.

SPECIFICATION forming part of Letters Patent No. 702,734, dated June 17, 1902.

Application filed March 15, 1901. Serial No. 51,312. (No model.)

To all whom it may concern:

Be it known that we, WILLIAM H. KELLY and ALFRED TSCHINKEL, citizens of the United States, residing at New York, in the county and State of New York, have invented a new and useful Electric Water-Recording Device, of which the following is a specification.

This invention embraces a new device for making a record of the water consumption in flats, apartments, floors, and entire buildings.

We will now proceed to describe the electric water-recording device, pointing out afterward the novelty of the same in claims.

In the accompanying drawings, Figure 1 is a sectional view of our device with a recording device connected therewith in electrical circuit. Fig. 2 is a sectional view of a modified form of our device, and Fig. 3 is a top plan view of one of the devices in position in the pipe. Fig. 4 is a front elevation of an electromagnetic recording apparatus and its bells.

Similar letters of reference indicate corresponding parts.

Referring to the drawings, P represents a vertical water-supply pipe, to which is secured a plug X, or a T may be inserted, having screwed to its free end the plug X, the bearer of guide-arms W W', one of which is insulated where connected to said plug. Both arms W W' are flattened on one of their ends and perforated in center to receive the extending portions *w' w'* of the electric-circuit closer U, and the other ends are bent, forming a loop to facilitate a connection of electric-circuit wires. Said electric-circuit closer U may be of any desired shape or form, of which some are shown in Figs. 1, 2, and 4.

The circuit-closer U and the lower extending arm *w'* are made of a material which is a good conductor, whereas the upper extending arm *w'* is insulated its entire length.

The electromagnetic recording apparatus *lc*, as shown in Figs. 1 and 4, consists of a base-plate I, a connecting-plate I', with vertical-extending brackets B² B' B, supporting the shaft *o*² of the paper roll R², the shaft *o'* of the supporting-cylinder R', the shaft *o* of the collecting-cylinder R, which latter is set in rotative motion by a clockwork A. The rear plate G, vertically extending from said base, supports a series of electric bells D D. The same number of electromagnetic coils Y, mounted on the connecting-plate I', have their armature-

levers L L journaled in the upper part of brackets, whereby their free ends extend to operating-arms E E, each being provided with a marking device F. Each water-supply pipe leading to one apartment is provided with a separate circuit, including a bell, an electromagnetic coil, and an operating-arm, to facilitate a control of the water consumption at each apartment separately. When a cock belonging to one apartment is opened, a single path of the series of circuits will be closed. One bell D will be set in motion. One electromagnetic coil Y now energized will actuate on its armature-lever L, moving the operating-arm E downwardly and bringing the marking device in a close contact with the paper, which slowly is moving from its roll R² to the collecting-cylinder R by means of a clockwork. The marking device will leave a line on the moving paper which will be proportional to the time the water was used. The paper used for this purpose may be divided in spaces by lines, each space representing a limit of time.

By placing the recording apparatus of our water-controlling device near the apartment of the person in charge of the house the consumption of water of any apartment may be recorded, and any wasting of water could be stopped immediately by calling on the tenant who uses the water too freely.

Having thus described our invention, we claim as new and desire to secure by Letters Patent—

1. In an electric water-recording device, the combination of a water-supply pipe with an electric-circuit-closing device consisting of an electroconducting body, arms extending from said body, guide-arms provided with openings in which said arms fit and having their free ends connected in an electric circuit.

2. In combination, a water-supply, arms extending into and out of said supply, an electric-circuit closer mounted between the arms inside the supply-pipe, and electrical connections with the outside ends of said arms for operating an indicator and to ring an alarm.

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Witnesses:

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