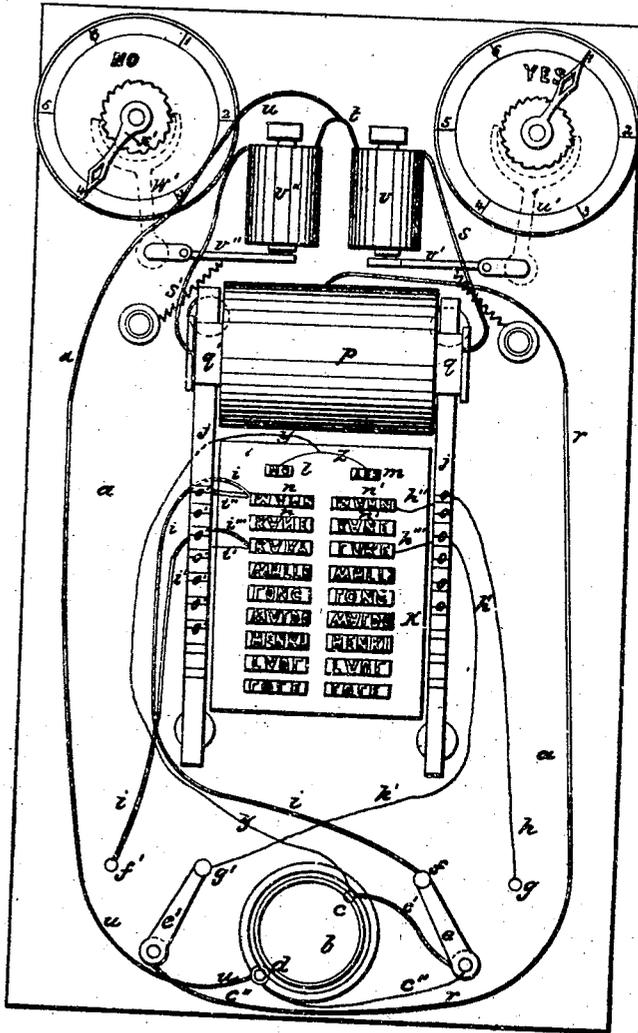


T. A. EDISON.

Electric Vote-Recorder.

No. 90,646.

Patented June 1, 1869.



Witnesses.

Carroll D. Mayne
Edw. Mitt Roberts

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UNITED STATES PATENT OFFICE.

THOMAS A. EDISON, OF BOSTON, MASSACHUSETTS, ASSIGNOR TO HIMSELF
AND DEWITT C. ROBERTS, OF SAME PLACE.

IMPROVEMENT IN ELECTROGRAPHIC VOTE-RECORDER.

Specification forming part of Letters Patent No. 90,646, dated June 1, 1869.

To all whom it may concern:

Be it known that I, THOMAS A. EDISON, of Boston, in the county of Suffolk and State of Massachusetts, have invented a new and useful apparatus named "Electrographic Vote Recorder and Register," of which the following is a full, clear, and exact description, reference being had to the accompanying drawing, which represents a plan view of the apparatus, and to the letters of reference thereon.

The object of my invention is to produce an apparatus which records and registers in an instant, and with great accuracy, the votes of legislative bodies, thus avoiding loss of valuable time consumed in counting and registering the votes and names, as done in the usual manner; and my invention consists in applying an electrographic apparatus in such a manner that each member, by moving a switch to either of two points, representing an affirmative and opposing vote, has his name imprinted, by means of electricity, under the desired head, on a previously-prepared paper, and at the same time the number of votes is indicated on a dial-plate by the operation.

Referring to the drawings, in the central portion of the plate *a a* is secured a block, *k*, upon which are set, in metallic types, two columns of names, *n n'*, the one being headed by the word "no," the other by "yes," each column containing the name of every voter, and the like names standing opposite each other, as Mann under head "no" opposite to Mann under head "yes," &c. The types are separated by intervening spaces.

Along two sides of the block *k*, and parallel with the two columns *n n'*, are two rails, *j j'*, composed of any good insulating material, as hard rubber.

Opposite the intervening spaces between two names the upper faces of the rails *j j'* are intersected by metallic strips *o o o' o' o'*.

On the rails *j j'* are mounted two rollers, *q q'*, insulated from one another, and insulated from and surrounded by the cylinder *p*, in such a manner that the rollers *q q'* project beyond said cylinder *p* and rest immediately upon the rails. These rollers are metallic, and the larger one, *p*, is of such a size as to come in contact with a chemically-prepared paper placed

upon the types, and is, furthermore, in communication with battery *b* by means of conducting-wire *r r*, or in any other suitable manner.

The rollers *q q'* communicate with the two magnets *v v''* by the wires *s s'*, and through them operate the armatures *v' v'''*, the escape-ments *w w'* and the pointers *x x'*, which latter show the numbers of votes on the dial-plates marked with as many figures as there are voters.

The battery *b*, with the two poles *c* and *d*, is connected with and operates the apparatus in the following manner: The pole *c* is in constant communication with the metallic types *l m*, representing, respectively, "no" and "yes," by means of the conducting-wires *y z*; but the pole *c* is connected by the wires *e' e'' e'''*, with as many switches *e e'* as there are voters.

From the points *f f' g g'* the conducting-wires *i i' h h'* pass to the metallic strips *o o o' o'*, and from thence to the nearest metallic type, or they may pass first to the types and then branch back to the respective strips, as seen in the column to the left.

From the pole *d* of battery *b* communication is established with the cylinder *p* by the wire *r r*, and from the same pole by the wire *u u t* to the two magnets, where the aforesaid conducting-wires *s s'* lead to the two insulated rollers *q q'*.

The apparatus is placed before the recording clerk's desk, and a paper, which is previously chemically prepared for printing by electricity by saturating it in any known solution for that purpose, is placed upon the types, and covering the two columns and their heading.

Every voter is also provided with a switch, *e*, and moves the same *ad libitum*, as the occasion may require, on the point *f* or *g*. Thus an electric current is established between the pole *c* of the battery, the switch *e e'*, and the types *l m*, and the clerk then rolls the rollers *q q'* with cylinder *p* on the paper upon the types. As soon as the cylinder *p* comes on the type of the headings the circuit becomes completed through the paper, (as the wires *y y* connect the pole *c* with the types, and the wire *r* the pole *d* with the cylinder *p*), and de-

composes the chemicals, thereby discoloring the paper in contact with the types, and thus produces the printing.

When the cylinder *p* comes over the two names—Mann, Mann—the current from pole *c* through switch *e* and wire *i* to the types bearing the name on the left becomes completed through the paper, with cylinder *p*, wire *r*, and pole *d*, and, discoloring the paper, produces the name Mann on the paper; but there is no connection of the other name Mann to the right with the switch and pole *c*; consequently no decomposition takes place, and no name shown.

The roller *p* passing on and leaving the types the circuit becomes broken; but as soon as the rollers *q q'* come in contact with the metallic strips *o o'* the circuit from pole *c* through the switch *e*, wire *i i''*, strip *o'*, and through roller *q'*, magnet *v v''*, wire *t* and *u* to pole *d*, becomes closed, the armature *v'''* attracted the escapement *w'*, and with it the pointer *x'* moved forward, and here one negative vote recorded, &c.

Thus, it will be seen, the names of all the voters are printed on their respective heads, and also the whole number of votes counted in an instant, or as long as it will require time to roll the cylinder *p* over the types containing

the list of all the names in metallic types, with more dispatch and accuracy than it can possibly be done in any other way.

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

1. The combination of a switch or switches *e e'*, types and cylinder *p*, with an electric battery, connected and operating substantially as and for the purpose set forth.

2. The combination of switch *e*, strips *o o'*, types, and the separated and insulated rollers *q q'*, magnets *v v''*, armature, escapement, pointer, and dial-plate, with the battery *b*, connected and operated substantially as and for the purpose above described.

3. The combination of switch, types, cylinder *p*, rollers *q q'*, strips *o o'*, and insulators *j j'*, magnets *v v''*, armature, &c., constructed in the manner and for the purpose above specified.

In testimony whereof I have signed my name to this specification in the presence of two subscribing witnesses.

THOMAS A. EDISON.

Witnesses:

CARROLL D. WRIGHT,
M. S. G. WILDE.