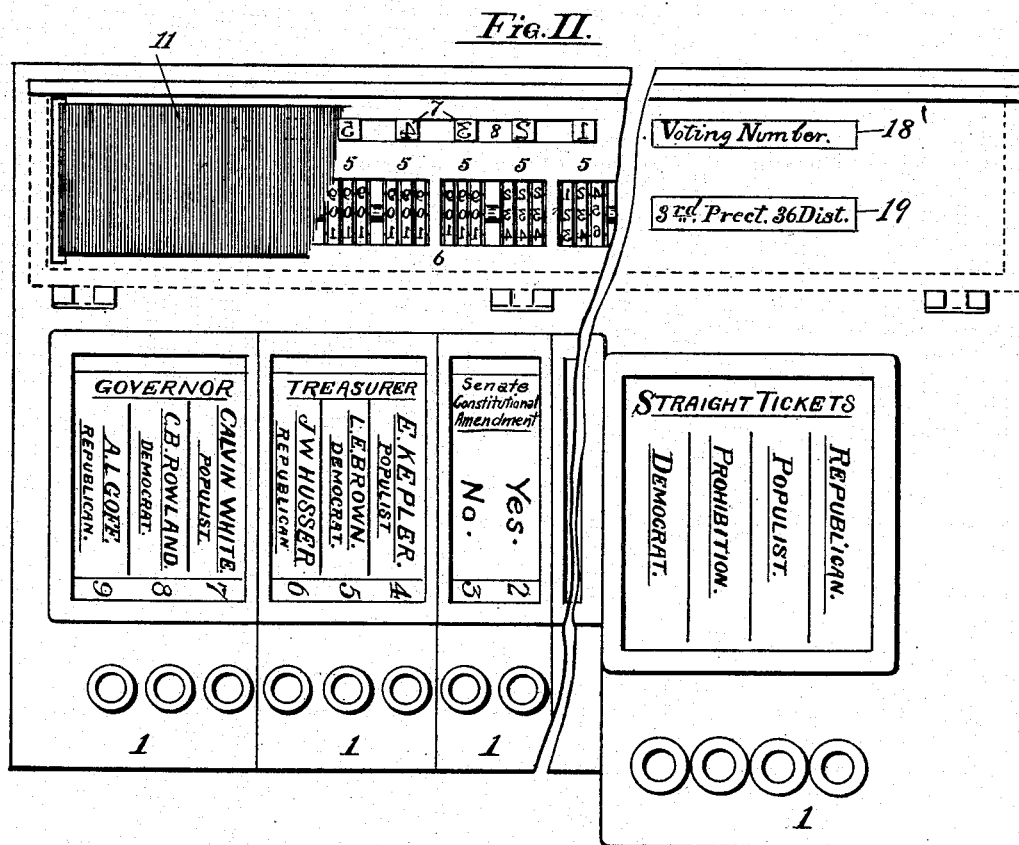
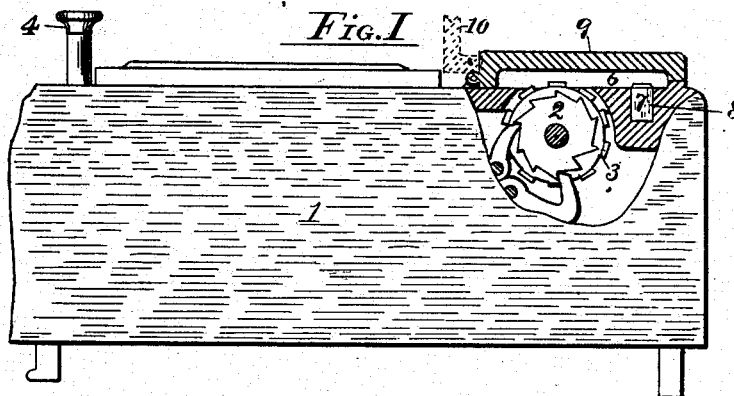


A. J. BOLFING.  
VOTE RECORDER.

(No Model.)

(Application filed Feb. 8, 1897.)

3 Sheets—Sheet 1.



Witnesses

Inventor

By

*H. Lockwood*  
*H. Sanderson*

*Arthur J. Bolfig*

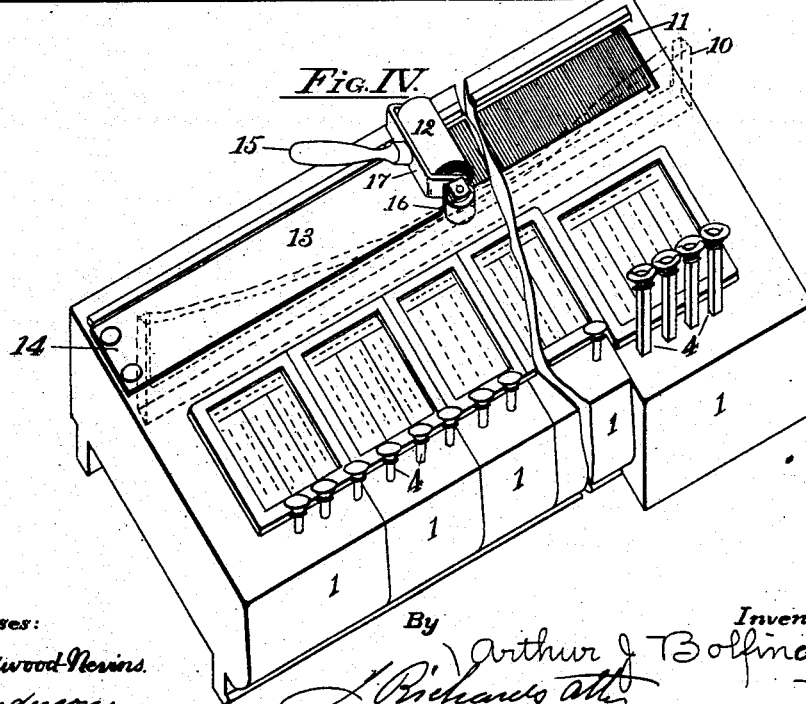
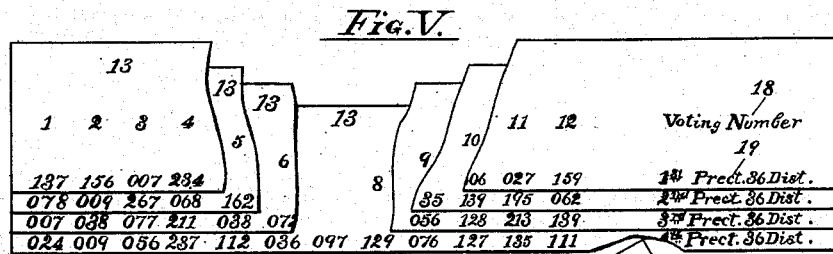
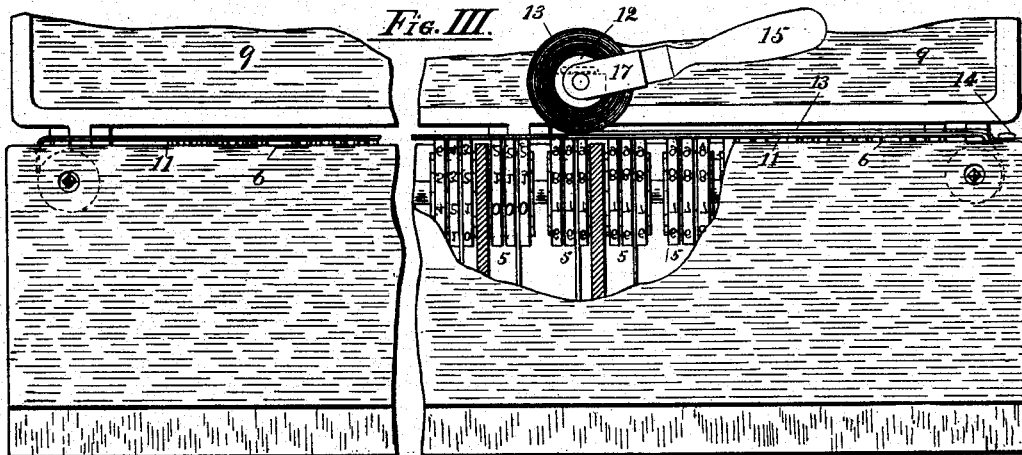
*J. Richards*  
Attorney

**A. J. BOLFIG.**  
**VOTE RECORDER.**

(Application filed Feb. 6, 1897.)

(No Model.)

**3 Sheets—Sheet 2.**



Witnesses:  
K. Lockwood-Norris.  
H. Sanderson

By

*Inventor:*

Arthur J. Bolling  
Richards atty

A. J. BOLFING.

VOTE RECORDER.

(Application filed Feb. 6, 1897.)

(No Model.)

3 Sheets—Sheet 3.

|  | 1   | 2   | 3   | 4   | 5   | 6   | 7   | 8   | 9   | 10  | 11  | 12  | Voting Numbers                    |
|--|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----------------------------------|
|  | 112 | 089 | 053 | 113 | 111 | 144 | 213 | 126 | 142 | 091 | 131 | 136 | 1 Precinct 37 Dist.               |
|  | 132 | 122 | 142 | 099 | 142 | 213 | 144 | 132 | 136 | 126 | 144 | 110 | 2 Precinct 37 Dist.               |
|  | 071 | 210 | 136 | 126 | 112 | 151 | 141 | 136 | 125 | 120 | 131 | 141 | 3 Precinct 37 Dist.               |
|  | 172 | 212 | 137 | 117 | 191 | 181 | 151 | 131 | 127 | 131 | 126 | 132 | 4 Precinct 37 Dist.               |
|  | 487 | 633 | 468 | 455 | 556 | 689 | 649 | 525 | 530 | 468 | 532 | 519 | Totals for 37 <sup>th</sup> Dist. |

Fig. VI.

|  | 1                   | 2   | 3   | 4   | 5   | 6   | 7   | 8   | 9   | 10  | 11  | 12  |
|--|---------------------|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
|  | 487                 | 633 | 468 | 455 | 556 | 689 | 649 | 525 | 530 | 468 | 532 | 519 |
|  | Totals for 37 Dist. |     |     |     |     |     |     |     |     |     |     |     |

Fig. VII.

|  | 1    | 2    | 3    | 4    | 5    | 6    | 7    | 8    | 9    | 10   | 11   | 12   | Voting Numbers      |
|--|------|------|------|------|------|------|------|------|------|------|------|------|---------------------|
|  | 530  | 710  | 412  | 491  | 612  | 614  | 521  | 520  | 612  | 610  | 712  | 530  | Totals for 36 Dist. |
|  | 487  | 633  | 468  | 455  | 556  | 689  | 649  | 525  | 530  | 468  | 532  | 519  | Totals for 37 Dist. |
|  | 621  | 610  | 421  | 417  | 560  | 614  | 521  | 614  | 317  | 471  | 621  | 514  | Totals for 38 Dist. |
|  | 1638 | 1953 | 1301 | 1363 | 1728 | 1917 | 1691 | 1659 | 1459 | 1549 | 1865 | 1563 | Grand Total.        |

Fig. VIII.

Witnesses:

*James H. Bolfing Jr.*  
*Wm. L. Bolfing*

Inventor:

*Arthur J. Bolfing*

# UNITED STATES PATENT OFFICE.

ARTHUR J. BOLPING, OF SAN FRANCISCO, CALIFORNIA.

## VOTE-RECORDER.

SPECIFICATION forming part of Letters Patent No. 676,456, dated June 18, 1901.

Application filed February 6, 1897. Serial No. 622,266. (No model.)

*To all whom it may concern:*

Be it known that I, ARTHUR J. BOLPING, a citizen of the United States, residing in the city and county of San Francisco, State of California, have invented certain Improvements in Vote-Recorders, of which the following is a specification.

My invention relates to an apparatus for printing the registered results from a voting-machine, so that any number of authentic duplicates can be printed from the registering devices or counters before the polls are opened, during their progress, or subsequent thereto, as may be desired, in such form as to be readily assembled in an official organized list.

The objects of the present invention are to provide a method of procuring official election returns without employing the processes of canvassing, tallying, transcribing, or tabulating, which are needful in the system commonly in use at the present time, whereby the official integrity of said returns may be maintained to provide a mechanical means for, and to so far embody thereby in corporeal substances, the evidence of the elector's preference of candidates, measures, &c., as to make said returns authentic, and to provide a means for identifying the returns to their respective candidates.

Figure I is a side view, partially in section, of one element of a voting-machine containing a key and revoluble registering-wheels, chosen for purpose of illustration from a machine such as is described in my application for Letters Patent on voting-machines, Serial No. 585,025, filed March 26, 1896. Fig. II is a plan view of a series of these elements placed side by side, so the registering and printing wheels will stand in alinement and permit impressions to be taken in one line on narrow strips of paper. Fig. III is a broken view of the rear side of a voting-machine, showing the manner of taking printed impressions. Fig. IV is an isometric view of a voting-machine, showing the manner of applying the paper to receive impressions. Fig. V shows the register-strips assembled or superposed above and slightly in advance of each other, the whole adapted and arranged so as to be quickly and conveniently added. Fig. VI is a view showing the register-strips,

one from each precinct, superposed above and slightly in advance of each other, forming an official list of the returns, with a district summary-strip containing the totals of the columns thus formed. Fig. VII shows district summary-strip with district-totals under respective identifying voting-numbers. Fig. VIII is a view showing the district summary-strips, one for each district, superposed above and slightly in advance of each other, forming an official list of the returns, with grand-total summary-strip containing the totals of the columns thus formed, from whence to decide as to the election of candidates and the adoption or rejection of measures.

Each section 1, of which there are as many as there are offices, measures, or objects to be voted for, contains as many sets of printing-counters 5 as there are candidates for the former and two sets each for the latter. These sections are made complete in themselves, independent of each other and interchangeable, in order that subsequent elections may be readily arranged for. Over these sections is placed a ballot containing the names of the offices, candidate names with voting-numbers, and straight-ticket names, said ballot being spaced to correspond with the keys for operating the counters, the counters of the individual-candidate sections being operated by respective keys and also by the keys in the straight-ticket section. Opposite the counters 5 are type 7, bearing numbers corresponding to the voting-numbers of the ballot or face-plate, in order to identify the totals of votes cast to their respective candidates, &c.—e. g., type bearing figure "6" corresponds with the voting-number "6" opposite the name of "E. Kepler, Populist candidate for treasurer." The counters of all sections are arranged in one line in order that the impressions made therefrom may show the totals of votes for each candidate in one line, in consequence of which arrangement a new principle becomes inherent in said printed record, as is manifest by its susceptibility when assembled with other similar registers, of forming a column for each of the respective candidates containing the totals of votes cast for said candidates. A suitable cover 9 when closed forms a guard to protect the wheels and type and when

open forms a guide for roller 16. Over the top of the counters and type is placed an inked ribbon 11. An impression-roller 12 is wound with a continuous strip of paper 13, so the end of the latter can be fastened in a suitable manner, so that when the roller is moved forward the paper is unwound from the roller and by weight of the latter receives an impression through said ribbon of the figures on the top of the counters 5, type 7, and also from type 18 and 19, which latter serve as a means to identify the totals to the precinct and district in which the votes were cast. Duplicates to any extent may be thus made at any time. These registers, one from each precinct, when assembled form a complete printed page, showing the totals of votes cast in a district for each of the candidates in respective columns under identifying numbers and at one side of the page the names and numbers of the various precincts of the district in which the votes were cast. If desired, in lieu of the voting-numbers a ballot the same as that of the face-plate may be placed above the registers in forming the organized list, thus dispensing with the type opposite the counters without impairing the usefulness of said registers.

The process of officially recapitulating election returns without canvassing, tallying, transcribing, or tabulating is as follows: Upon a suitable form or assembling-board 27, near the bottom, will be fastened a strip 28, having suitable spaces delineated thereon to receive the summary of the columns formed. The said spaces, and consequently the totals set down therein, by means of the identifying-numbers 29 will be identified to their respective candidates or measures. Superposed above, properly spaced, and likewise fastened will be the register 13, bearing the highest precinct-number. The register 13 having the next lowest precinct-number will be likewise superposed, these latter registers to be so arranged that the totals of votes cast for the respective candidates, &c., will come in the same columns and that the register 13 last placed will cover the voting or identifying numbers on the preceding summary-strip 28 or register 13, as the case may be, this process for superposing and fastening to be carried out with all the registers, one from each precinct in a given district. The final register thus placed will exhibit the voting-numbers 24, thereby identifying the columns thus formed to the respective candidates or measures, &c., and the columns may be summarized and the totals placed in the respective spaces provided therefor on summary-strip 28. The summary-strips, (when properly completed,) one from each district, may in turn be assembled in like manner, again forming columns under respective identifying-numbers and summarized, as shown in Fig. VIII. The totals thus arrived at, it is obvious, will represent all the votes cast for the respective candidates and for and against respective meas-

ures and will comprise the means from whence to decide as to the bestowal of office and the adoption or rejection of measures. It is contemplated that a register 13 be taken at the opening of the polls and posted in a conspicuous place provided for it upon the booth, from which all electors present may learn that the counting and printing wheels were all set at zero—the first register taken at the close of the polls to be posted in a similar manner thereunder and the second of such registers taken at the close of the polls to be forwarded to the officers of election, where it in conjunction with other similar registers 13 will be assembled, as shown in Figs. V and VI. The registers 13 taken subsequently may be furnished to the headquarters of the various political parties interested and to such newspapers wherein it is proposed to publish the election returns.

I desire to secure by Letters Patent claims as follows:

1. In a voting-machine, a face-plate or ballot with names and voting-numbers of candidates; printing-counters with type at the same level, said type bearing figures corresponding with said voting-numbers; and means for taking impressions of said printing-counters and said fixed type.

2. In a voting-machine, a fixed covering-plate; a series of counting and printing wheels bearing figures thereon in relief, and projecting through apertures in said plate; in combination with a series of fixed type at the same level, bearing figures indicating the candidate, office or object voted for; and a face-plate bearing the names of the several candidates, offices or objects to be voted for, with numbers to identify said candidate, office or object with the figures on said fixed-type series, substantially as specified.

3. In a voting-machine, a fixed perforated plate or platen; a series of fixed revoluble counting and printing wheels having figures thereon in relief, presenting in succession through apertures in said platen a register of the votes; a face-plate or ballot containing the names of candidates with respective voting-numbers; fixed type corresponding with said voting-numbers, opposite to the sets of counting-wheels, to identify the votes cast or registered with the candidates or objects voted for, at the same level with the printing-surface of the counting and printing wheels; in combination therewith a carbon or inked ribbon covering the counting and printing wheels; a chambered or suitable cover to conceal and protect the register as the polling of the votes proceeds; and means for making impressions thereof, substantially as specified.

4. In a voting-machine, a fixed covering-plate; a series of counting and printing wheels having figures thereon in relief, presenting in succession through apertures in said plate a register of the votes; a series of fixed type adjacent thereto and at the same level bearing

figures indicating the candidate, office or object to be voted for; a face-plate bearing the names of the several candidates, offices or objects to be voted for with numbers to identify the candidate, office or object with the figures on the fixed-type series; a carbon or inked ribbon covering the counting and printing wheels and the fixed type; an impression-roller whereby printed impressions of the register may be obtained in any required number of copies, substantially as specified.

5. In a vote-recorder, the combination of the series of counting and printing wheels; the series of fixed type bearing figures indicating the candidate, office or object to be voted for; the fixed perforated covering-plate through which the figures on the counting-wheels project; the chambered cover to conceal and protect the register as the voting proceeds; the face-plate bearing the names of the candidates, offices or objects to be voted for with the identifying-numbers corresponding to the numbers on the fixed-type series; the inked ribbon covering the wheel-numbers and the fixed-type numbers; means whereby printed impressions of said register and said type may be obtained substantially as specified.

6. A series of sections, placed parallel and side by side, one for each office, each section containing a series of printing-counters, one for each candidate, all the type-wheels of said counters of each section so disposed that an impression may be obtained of all the counters in a single line transversely; a series of fixed type bearing figures indicating the candidate, office or object to be voted for; a face-plate bearing the names of the candidates, officers or objects to be voted for, with respective identifying or voting numbers corresponding to the numbers on the fixed-type series.

7. In a voting-machine, a face-plate or ballot with names of candidates and respective voting-numbers; in combination therewith, means for embodying in one line, in corporeal substances, the official evidence of electors' preference of candidates for the various offices, measures, &c., voted for, from whence to decide as to the election of candidates and the adoption or rejection of measures, &c.;

and means comprising a series of fixed type bearing numbers corresponding with the voting-numbers of the aforesaid face-plate, for officially identifying said evidence of preference with said candidates, measures, &c., substantially as described.

8. In a voting-machine, a face-plate or ballot with names and voting-numbers of candidates; printing-counters, one for each candidate, said counters comprising printing-wheels so disposed that printed impressions thereof will appear in a single line; fixed type adjacent said counters, bearing figures corresponding with said voting-numbers; means for taking impressions of said counters and said type.

9. In a voting-machine, a series of counting and printing wheels, having figures thereon in relief, arranged in alinement in a single row and projecting through apertures in a fixed covering-plate common to all the wheels, and opposite thereto a series of fixed numbers; in combination with the means as described for obtaining an impression or record in one line of all said printing-wheels, and adjacent thereto, of the fixed numbers, substantially as specified.

10. In a vote-recorder, candidate names with officially-assigned voting-numbers; individual-candidate counters; keys for accumulating upon said counters the official evidence of the electors' preference of candidates; adjacent said keys, voting-numbers, with or without candidate names, to identify said keys with said candidates; fixed type, bearing numbers corresponding with said voting-numbers, adjacent said individual-candidate counters, to identify said accumulated evidence with said candidate names respectively; means to embody in corporeal substances said evidence of preference; means to identify said evidence of preference with said candidates respectively, substantially as described.

In testimony whereof I have hereunto affixed my signature in the presence of two witnesses.

ARTHUR J. BOLFING.

Witnesses:

K. LOCKWOOD-NEVINS,  
H. SANDERSON.