Sept. 21, 1965 L. J. VILVEN 3,207,531

VOTE COUNTING

Filed Oct. 18, 1963 2 Sheets-Sheet 1

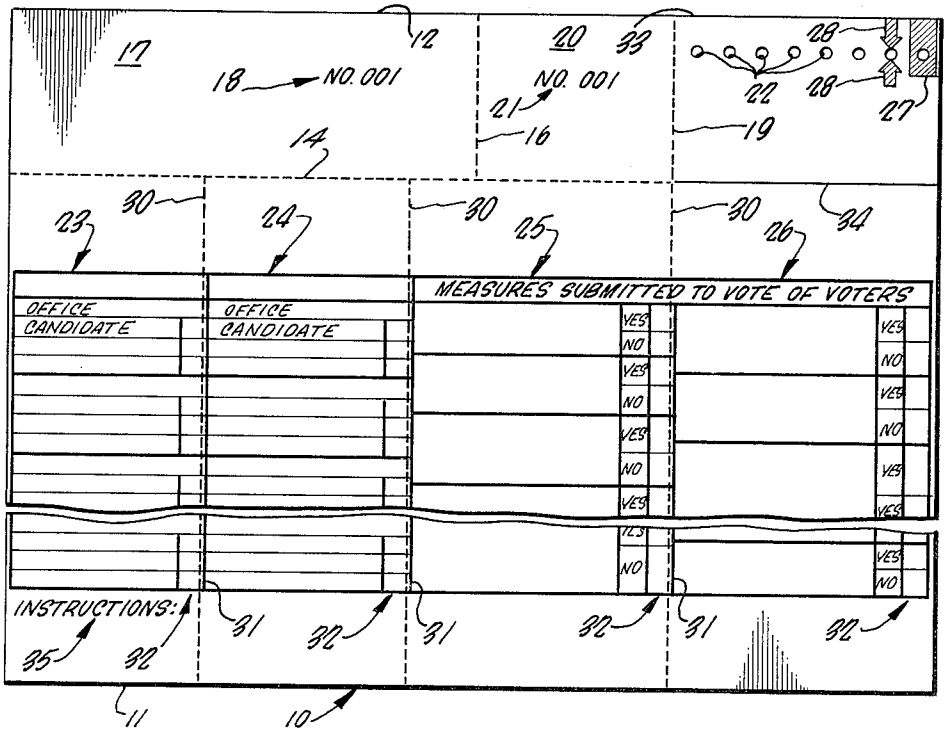


FIG. 1

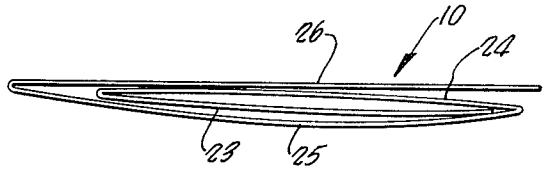


FIG. 2

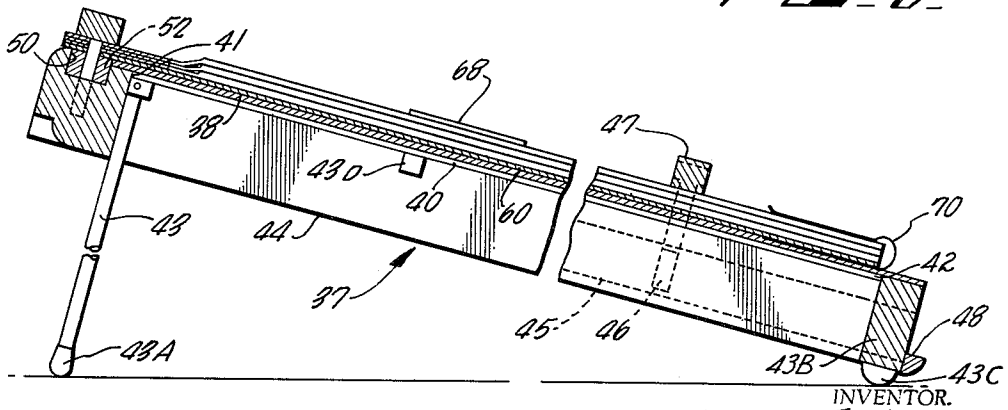


FIG. 4

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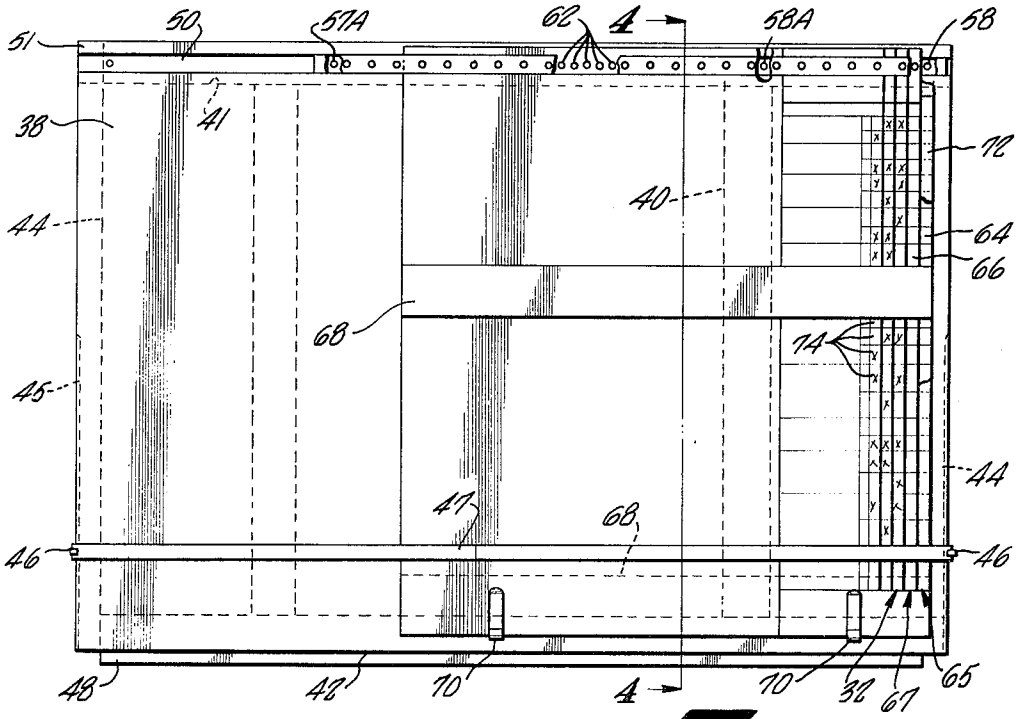
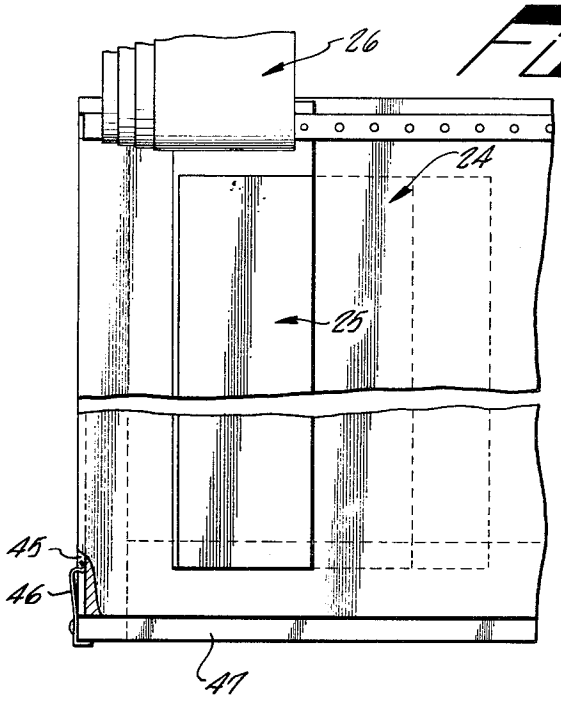


FIG 3

FIG 6



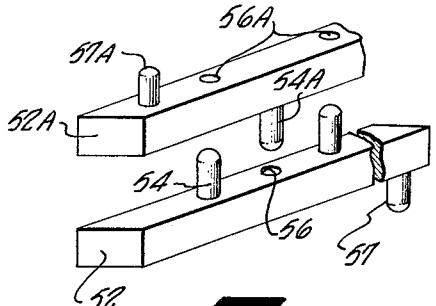


FIG 5

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3,207,531

VOTE COUNTING

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5 Claims. (Cl. 281—44)

This invention relates to ballots and apparatus for tallying the votes on ballots.

At the present time, a typical ballot includes a column of issues to be decided by voters. After the ballots are marked and placed in the ballot box, they are removed by election officers and the votes are tallied. The present method of tallying votes is a time-consuming and cumbersome procedure. This invention provides an improved ballot and apparatus to facilitate a rapid and accurate counting of the votes.

The ballot of this invention comprises a flexible sheet having printed on its face at least two columns of issues to be decided by voters. A tab is formed integrally with the sheet to extend collinearly with one of the columns away from the sheet. The tab has a plurality of perforations spaced in a direction perpendicular to the columns on the sheet to facilitate its mounting in the tallying apparatus described below.

On those ballots in which three or more columns are required to present the issues to the voters, the column or columns adjacent one side edge of the ballot are narrower than those on the other side, so that the ballot can be folded on the lines dividing the columns into a "wrap around" configuration. Preferably, the tab is located in line with the wider column. Conveniently, the ballot is scored along the lines dividing the columns to facilitate folding.

In the preferred form, the perforations on the tab are suitably marked to facilitate stacking of a number of the ballots in an overlapping fashion on each other and on pegs for counting of the votes as described below.

The holder for ballots includes a board with an upwardly opening elongated groove in it. A first elongated rail of a shape to fit in the groove carries a plurality of longitudinally spaced and upwardly extending pegs to fit into the perforations of the ballots which are placed on the rail. A second elongated rail similar to the first rail includes perforations to receive the pegs on the first rail when the second is placed on the first to sandwich the ballots between the two rails.

Preferably, the first rail has holes in it between adjacent pegs, and the second rail has pegs which fit into the holes in the first rail when the two rails are placed together.

In the preferred form, a backing sheet is disposed over the board before the ballots are placed on the first rail, and the backing sheet includes perforations along one edge to fit over the upwardly extending pegs on the first rail.

The ballots are placed on the first rail and the backing sheet to extend away from the rail and over the backing sheet. A horizontal reading strip or straight edge is placed over the ballots remote from the perforations and is moved vertically to aid the eye in counting votes.

A retaining bar fits across the lower ends of the ballots and includes clamping means which mate with the board to keep the columns of the ballots aligned as the reading strip is moved up or down to aid the eye in counting votes. One or more tally sheets are disposed under the ballots and are provided with tally spaces at appropriate places in vertical tally columns for recording the votes counted from the ballots on the board. Preferably, two tally sheets are used to provide two columns so that the votes can be checked by more than one counter. To insure independent counting, an elongated mask is placed

over one of the columns on the tally sheet while the count is being made of the votes for the other column.

The groove in the board includes at least one indexing hole to receive an indexing pin on the lower rail and hold the rail in position in the groove. In the preferred form, the groove has a second indexing hole to receive an indexing pin on the second rail when the rails and ballots are inverted as described in more detail below.

These and other aspects of the invention will be more fully understood by the following detailed description and the accompanying drawings, in which:

FIG. 1 is a plan view of the improved ballot of this invention;

FIG. 2 is an end view of the bottom edge of the ballot when folded to be used with the counting apparatus of this invention;

FIG. 3 is a plan view of the ballot holder with some ballots mounted on it;

FIG. 4 is a view taken on line 4—4 of FIG. 3;

FIG. 5 is a fragmentary perspective view of the two rails; and

FIG. 6 is a fragmentary plan view, partly broken away, showing the rails and ballots in an inverted position, and being arranged for further counting.

Referring to FIG. 1, a ballot **10** includes a flexible rectangular sheet of paper **11** which is adapted to be secured along its upper edge **12** in a conventional ballot book (not shown) so the ballot can be torn from the book when ready for use.

The upper portion of the ballot includes a horizontal scored or perforated line **14** which extends from the left edge approximately two-thirds of the way across the sheet. A first vertical perforated tear line **16** extends from approximately the center of the upper edge of the ballot down to the horizontal tear line to form a rectangular identification slip **17** which is marked with an identifying number **18**. A second vertical perforated tear line **19** extends from the upper edge of the ballot to the right end of the horizontal tear line to define a voter's ballot receipt slip **20**, which has an identifying number **21** identical with that of **18** on the rectangular identification slip.

A plurality of horizontally spaced mounted perforations **22** are formed in the upper right-hand corner of the ballot sheet, so they extend in a direction perpendicular to four vertical issue columns **23, 24, 25** and **26** formed on the face of the ballot. An area **27** around the perforation **22** at the right end of the line of perforations is darkened to facilitate ballot mounting as subsequently described. The adjacent mounting perforation is marked by a pair of darkened arrows **28** for the same purpose.

Issue column **23** is the left-hand column, and it includes a vertical list of offices and candidates to be selected by the voters. The next issue column **24** is slightly wider than column **23** and also includes a list of offices and candidates. The next issue column **25** is wider than column **24** and it includes a row of measures, such as constitutional amendments and bond questions to be decided by the voters. Issue column **26** is slightly wider than **25**, and includes the same types of issues as in column **25**.

Each column is separated from its adjacent columns by vertical score lines **30** which facilitates folding of the ballots along the lines separating the columns. As shown best in FIG. 1, each column is separated from its adjacent columns by a heavy vertical printed line **31**, which is located just to the right of each adjacent score line **30**, so that when the ballot is folded on the score lines, the printed line is not visible adjacent the voting columns **32** where the voter records his choice.

When the ballot is to be used for voting, an election official tears the ballot from the book and removes the

identification slip **17** from the upper left corner of the ballot. The voter's slip **21** is removed from the ballot and retained by the voter, leaving a tab **33** formed integrally with the upper right corner of the ballot and extending collinearly with column **26** away from the ballot sheet. A horizontal printed line **34** separates the tab from the remainder of the ballot sheet, and the line usually carries instructions above it which read "Fold ballot to this line, leaving top margin exposed." After the voter has marked his ballot, he then folds the ballot up to line **34**, and it is ready to be deposited as a secret ballot into the ballot box. If desired, additional printed instructions **35** are provided on the bottom margin of the ballot.

When the votes are to be counted, the ballot is removed by an election official from the ballot box, and each ballot is folded as shown in FIG. 2, i.e., the left side of the ballot is folded along the leftmost vertical score line **30** so that columns **23** and **24** are back to back. The ballot is then folded along the next score line so that column **23** faces the back of column **25** and the ballot is folded once more so that column **24** faces the back of column **26**.

A holder **37** for the folded ballots is shown in FIGS. 3, 4, and 5, and it includes a flat board **38** which is reinforced in its central bottom portion by a pair of flat mounting strips **40** which terminate at the upper edge **41** and lower edge **42** of the board. A separate folding leg **43** is secured to pivot at one end adjacent the upper end of each mounting strip and folds down to hold the board in an inclined position as shown in FIG. 4. The lower end of each leg carries a rubber pad **43A**, and the lower edge of the board includes a reinforcing brace **43B** with a pair of padded feet **43C** on it to provide cushion support for the board. When the legs are not in use, they are folded into the leg clips **43D** mounted on the intermediate portion of each mounting strip.

Downwardly extending side braces **44** are rigidly secured to each side of the board and include outwardly opening longitudinal recesses **45** which each receive a respective spring clip **46** mounted on opposite ends of a horizontal retaining bar **47** adapted to be removably clamped down over the lower ends of the ballots mounted on the board. When a complete count of the ballot is to be made the retaining bar **47** is removed from over the ballots and the ballots are turned over. An elongated rack **48** is mounted across the bottom edge of the board to receive the retaining bar as shown in FIG. 6 when the ballots are adjusted as described below. In this position, the spring clips **46** also fit into the recesses **45**. An elongated horizontal groove **50** of rectangular cross section is formed in the top surface of a downwardly extending upper brace **51** secured rigidly to the upper edge **41** of the board so that the board and brace are, for all practical purposes, integral.

An elongated first or lower rail **52** (FIG. 5) is of a shape to make a close fit in the groove **50** with the top surface of the rail substantially flush with the top surface of the brace **51** and board **38**. The first rail includes a plurality of upwardly extending longitudinally spaced pegs **54** and vertical holes **56** between adjacent pegs. The right end (as viewed in FIG. 5) of the bottom rail includes a downwardly extending indexing pin **57** which fits into a first vertical indexing hole **58** in the right end of groove **50**.

The ballots are secured in place as described below by a second or upper rail **52A** identical with the first, except that the second rail includes downwardly extending pegs **54A** which fit into the recesses **56** on the first rail. The second rail also includes vertical holes **56A** which receive the vertical upwardly extending pegs **54** on the first rail. An upwardly extending indexing pin **57A** on the second rail fits into a second indexing hole **58A** (FIG. 3) in the bottom of the groove **50** when the ballots are reversed as described below.

A flat backing sheet **60** is disposed on the board and has a plurality of perforations **62** along its upper edge to fit over the upwardly extending pegs **54** on the bottom rail in the groove.

In using the holder shown in FIGS. 3, 4, and 5, a first tally sheet **64** identical with the ballot (except that it conveniently is of a different color) and folded the same way is placed with the tab perforation surrounded by the dark area (as seen in FIG. 1) over the first peg on the right end of the first rail. This peg is in line with a tally column **65** (as seen in FIG. 3) of spaces corresponding to those which receive the voter's marks on the issues presented in column **26** of the ballot shown in FIG. 1. A second tally sheet **66** is placed on the first tally sheet and on the pegs so that its tab perforation surrounded by the dark area goes onto the peg identified by the arrows adjacent the second perforation from the right on the first tally sheet. A tally column **67** on the second tally sheet is now disposed alongside the tally column **65** on the first tally sheet. A first ballot to be tallied is placed on the pegs so that its tab perforation surrounded by the dark area goes over the peg identified by the arrows on the second tally sheet. This places a vote recording column **32** for column **26** of issues on the first ballot alongside the columns **65** and **67** on the tally sheet. This process is repeated until as many ballots as desired, say, forty, are placed on the backing sheet and on the pegs. For convenience, only three ballots are shown. The second rail is then placed on the ballots so the downwardly extending pegs fit through the perforations in the ballot tabs, the backing sheet, and into the holes in the first rail.

A flat elongated horizontal reading strip **68**, or straight edge, is placed over the ballots and moved up or down to aid the eye when votes are counted. After the votes in column **26** are counted, the reading strip is placed over the lower ends of the ballots and secured in place by a pair of clips **70** that fit over the reading strip and under the backing sheet. The retaining bar **47** is placed on its rack and the ballots are ready to be turned over for further counting, as described subsequently.

To count the votes in column **26**, the counter places the horizontal reading strip across the ballots to underlie one of the horizontal rows **74** of vote receiving spaces which indicate the preference for a particular issue. The number of votes in each row are recorded in a corresponding space on the first tally sheet as the strip is moved down. After all of the votes on all of the issues in column **26** have been counted by the first counter, a mask **72** is applied over the row **65** on the first tally sheet. Thereafter, a second counter repeats the count made by the first counter and records the results in the column **67** on the second tally sheet. The mask is then removed to uncover the column **65** on the first tally sheet, and the two results are compared for accuracy. If there is a discrepancy, it is checked immediately by an election official, and the correct answer is entered.

When the votes in column **25** of the ballot are to be counted, the retaining bar **47** is removed from over the ballots and secured on the rack **48** in the lower edge of the board. The reading strip is clipped to the backing sheet over the lower ends of the ballots as described above. The upper and lower rails are lifted together from the groove with the ballots and backing sheet sandwiched between them, and they are turned over so that the backing sheet is on top and the second rail **52A** fits into groove **50** with indexing pin **57A** on the second rail extending down into indexing hole **58** in the bottom of the groove **50**. The first rail is now lifted up off of the backing sheet which is then lifted from the now upwardly extending pegs on the second rail. The backing sheet is removed and the first rail is placed back on top of the second rail so the ballots are sandwiched between the two rails, with the left edge of the ballots now located adjacent the left edge of the board. In this position, the voting

columns 32 of the issue column 25 on each ballot and the two corresponding tally columns on the two tally sheets are disposed side by side. The retaining bar is placed over the lower ends of the ballots, and the votes on the issues in column 25 are counted, recorded, and checked, as previously described.

To count the votes in column 24, the retaining bar is placed in its rack, and the ballots and second tally sheet are lifted up to the position shown in FIG. 6. The first tally sheet is down on the board as shown in FIG. 6, and is unfolded one column to the right so that column 24 is exposed, as shown in phantom line of FIG. 6. The second tally sheet is then folded down from the position shown in FIG. 6 to rest on the first tally sheet. The second tally sheet is then unfolded one fold to the right so that the right edge of its column 24 lies adjacent the right edge of column 24 on the first tally sheet. The foregoing is repeated for each of the ballots until the horizontal rows are aligned for columns 24. The retaining bar is placed over the lower ends of the ballots, and the vote is then counted, recorded, and checked, as previously described.

To record the votes in column 23, the retaining bar is placed in its rack, the talley sheets and ballots are each unfolded one additional fold to the right so that column 23 is now exposed, and the right edge of each column 23 on each ballot, and each tally sheet lies in the overlapping arrangement previously described. The retaining bar is clamped over the lower ends of the ballots, and the vote is counted, recorded, and checked as previously described. The retaining bar is placed in its rack, the ballots removed, and the board is now ready for loading a new batch of ballots and tally sheets.

I claim:

1. A ballot comprising a flexible sheet having printed on its face at least three columns of issues to be decided by voters, the column adjacent one side edge of the sheet being wider than any of the remaining columns of issues which are progressively narrower toward the opposite side edge of the sheet to facilitate folding the ballot sheet in a wrapped-around configuration initially exposing only the widest column of issues for view by a tally counter, a tab formed integrally with the sheet to extend collinearly with one of the columns away from the sheet, the tab having a plurality of perforations spaced in a direction perpendicular to the said column, and a pair of removable scored tabs extending colinearly away from the remaining columns of issues and having the same ballot identifying number on each, one of said pair to be retained by the voter and the remaining one to be retained by a ballot counting official prior to a tallying operation of the ballot.

2. A ballot comprising a flexible sheet having printed on its face a plurality of vertical columns of issues with an indicating space opposite each issue for receiving a mark indicating a voter's preference, the columns being widest at one edge and progressively narrower toward the opposite edge with scored lines between adjacent columns to facilitate folding the ballot into a wrap-around flat configuration initially exposing only the widest column for view to a tally counter and with the narrowest issue innermost of the folded ballot, a tab formed integrally away from only the widest column of the ballot for securement between a pair of holding rails, scored sections formed integrally away from the ballot sheet above the remaining columns each section having the same ballot identification number one to be removed and retained by a voter and one by a vote counting official prior to a ballot folding and tallying operation, said tallying operation initially registering the voters preferences from the widest column and thereafter registering such preferences from the second widest column exposed by turning the ballot's widest column face down and thereafter unfolding in order the progressively narrower columns to tally the voter's preferences for all remaining columns.

3. A ballot holding and tallying apparatus comprising a ballot holder board having an upwardly opening elongated groove, a first elongated rail of a shape to fit in the groove, a plurality of longitudinally spaced and upwardly extending pegs on the rail, a ballot comprising a flexible sheet having printed on its face a plurality of columns of issues to be marked in an indicating space opposite each issue by a voter, said plurality having a first wide column adjacent one side edge of the ballot with all remaining columns progressively narrower toward the opposite side and each separated by vertical perforations for folding the ballot flat in a wrapped around configuration initially exposing to a vote counter's view only the widest column, a tab formed integrally with the sheet to extend collinearly with only the widest column away from the sheet, the tab having a plurality of perforations spaced in a direction perpendicular to the column to receive said pegs of the said first rail, and a second elongated rail of shape similar to the first rail, the second rail having perforations to receive the pegs on the first rail when the second rail is placed on the first to sandwich the ballots between the two rails, means forming a pair of vote tally columns adjacent the ballots, a removable mask independent of said rails and disposed over one of the columns to provide for a double independent tally of the vote on each issue on said ballot and means on the upper surface of said second rail for respositioning the rail and the ballots in said groove after turning of the rails and the sandwiched ballots to expose a second and thereafter subsequent unfolded columns of issues for a vote tallying operation of all columns.

4. A ballot holding and tallying apparatus comprising a ballot holder board having an upwardly opening elongated groove, a first elongated rail with a shape to fit in the groove, a plurality of longitudinally spaced and upwardly extending pegs on the rail, a ballot comprising a flexible sheet having printed on its face a plurality of columns of issues to be decided by voters with each column including a vertical blank having a space opposite each issue for receiving a mark indicative of the voter's preference, the first column of said plurality adjacent to one side edge of the sheet being wider than any of the remaining plurality of columns which are progressively narrower toward the opposite side of the sheet and perforations between adjacent ones of the plurality of columns to facilitate folding the ballot sheet in a flat wrapped-around configuration initially exposing to view only the widest column of issues on one side of the folded sheet, the next widest column of issues being hidden from view on the opposite side of the folded sheet and the narrowest column of issues being on the inside of the folded ballot, a tab formed integrally with the sheet extending colinearly with the widest column away from the sheet, the tab having a plurality of perforations spaced in a direction perpendicular to the column of issues to be decided by the voter for receiving said pegs of the said first rail when the ballot has been folded and placed over said pegs, a second elongated rail of shape similar to the first rail, the second rail having perforations to receive the pegs on the first rail when the second rail is placed on the first to sandwich a plurality of the folded ballots overlapped in shingled relationship between the two rails, a flexible tally sheet substantially identical with the ballot and folded in a wrapped around configuration in the same manner as the ballot sheet and including a pair of vertical blanks having a pair of spaces opposite each issue for receiving a ballot counter's tally of the total number of voters' preferences for that issue from all ballots of said plurality, a removable mask disposed over and covering from sight one of the tally columns to provide for a double independent tally of the voter's preference on each issue of all columns of the plurality of ballots, an indexing pin on the second rail and an indexing hole in the bottom of the elongated groove for receiving the indexing pin when the rails and ballots and tally sheets are turned over to expose the second widest column of issues for a tally opera-

tion, each of the remaining columns of issues being unfoldable from said turned position for tallying operations on all of the remaining columns of issues.

5. A ballot comprising a flexible sheet having printed on its face a plurality of vertical columns of issues with an indicating space opposite each issue for receiving a mark indicating a voter's preference, the columns being widest at one edge and progressively narrower toward the opposite edge with scored lines between adjacent columns to facilitate folding the ballot into a wrap-around flat configuration initially exposing only the widest column for view to a tally counter and with the narrowest issue innermost of the folded ballot, a tab formed integrally away from only the widest column of the ballot for securement between a pair of holding rails, scored sections formed integrally away from the remainder of the ballot sheet with each section having the same ballot identification number, one to be removed and retained by a voter and one by a voter counting official prior to a ballot folding and tallying operation, said tallying operation initially registering the voters' preferences from the widest

column and thereafter registering such preferences from the second widest column exposed by turning the ballot's widest column face down and thereafter unfolding in order any remaining progressively narrower column to tally all the voters' preferences.

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