

C. H. OCUMPAUGH
 INTERLOCKING MECHANISM FOR VOTING AND OTHER MACHINES.
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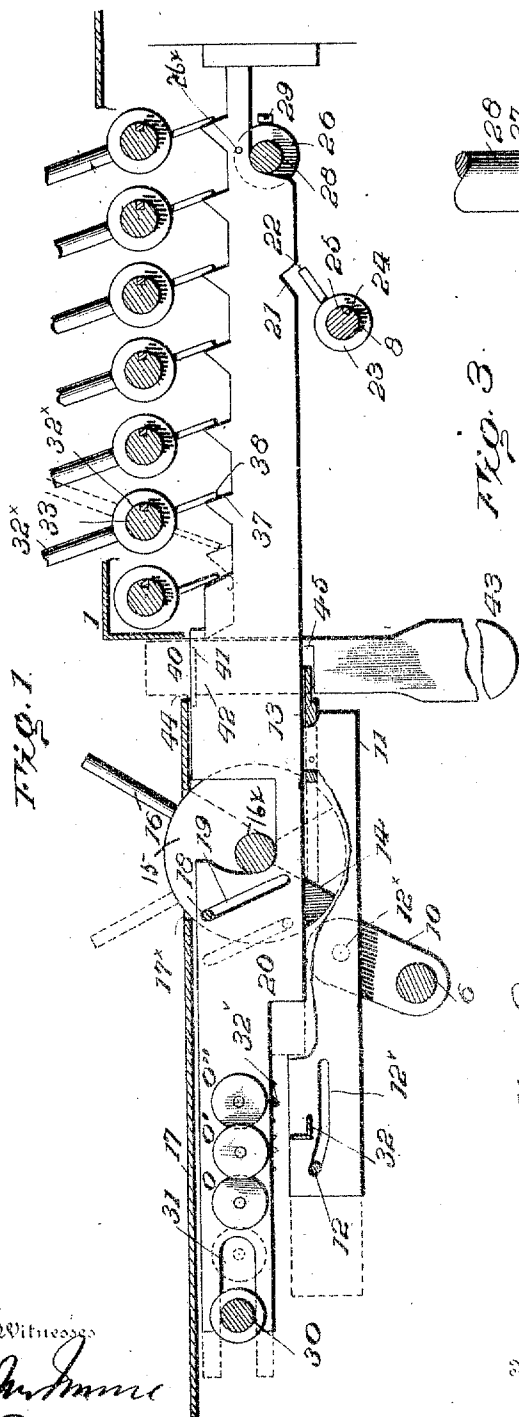


FIG. 1.

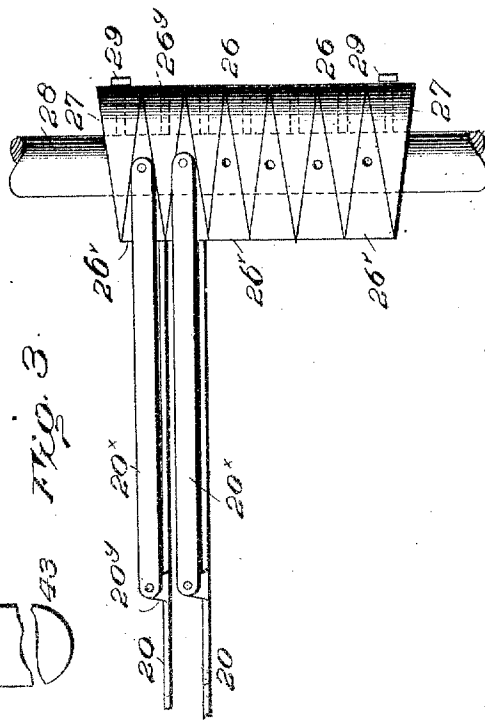
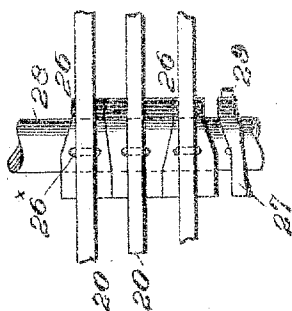


FIG. 3.

FIG. 2.



Witnesses
J. W. Gould.

Inventor
C. H. Ocumpaugh.
 By *Benj. R. Keadle*
 Attorney

UNITED STATES PATENT OFFICE.

CHARLES HERBERT OCUMPAUGH, OF ROCHESTER, NEW YORK.

INTERLOCKING MECHANISM FOR VOTING AND OTHER MACHINES.

984,150.

Specification of Letters Patent.

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To all whom it may concern:

Be it known that I, CHARLES H. OCUMPAUGH, a resident of Rochester, in the county of Monroe and State of New York, have invented certain new and useful Improvements in Interlocking Mechanism for Voting and other Machines; 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 pertains to make and use the same.

The invention relates to interlocking mechanism for voting and other machines, and has for its object to provide a simple and efficient construction.

The invention consists in the construction hereinafter described and particularly pointed out.

In the accompanying drawing, Figure 1 is a section of a so-called linear voting machine taken transversely to its length, and cutting individual and straight ticket shafts and lockout shaft and a shaft for supporting interlocking hubs, and showing in elevation a register-carrying bar in operative relation to straight ticket shaft extension; Fig. 2 is a partial plan of interlocking hubs and their supporting shaft; Fig. 3 is a partial plan of a modification of the interlocking devices and register-carrying bar-connections.

Numeral 1 denotes a machine case and 16 a key or vote-indicator adapted to be moved on a fixed shaft 16', and having an enlargement 15. A ballot sheet is indicated by 17.

6 denotes a shaft having bearings in the case and provided with an arm 10 pivoted at 12' to a movable bar 11 sliding on a rod or support 12 situated in a slot 12' in the bar. A suitable rocking of the shaft 6 carries a resetting bar 13 away from contact with the cut out portion 14 of the indicators 16 having enlargements 15 which extend through openings 17' in the ballot sheet 17. The bar 13 which has been acting as a lock against the manipulation of the indicators 16 on shaft 16', is thus removed, and the indicators are free to be operated. The voter moves toward the face of the machine any indicator 16, one or more, that correspond with a candidate or with candidates for whom he wishes to cast the vote.

The indicator enlargements 15 have each a stud 18 entering a slot 19 in a movable register-carrying bar 20, which bar has a part

or notch 21 which coöperates with a lock-out arm 22 fixed to an endwise adjustable sleeve 23 secured on shaft 8 by means of a lug or feather 24 on the inner side of sleeve 23 entering a slot 25 in said shaft, as indicated. If said lockout devices are inoperatively situated the indicator being actuated moves the register bar 20 by means of the stud 18 on the part 15 of the indicator key and the slotted bearing 19 in the movable bar 20 toward the face of the machine which bar carries the registers comprising the wheels lettered O, O', O''. The registers, however, are not actuated by any movement of the indicators 16, but the latter are freely movable into and out of voted position and are not at any time locked at any point of the movement.

In order that a voter may not leave in voted position more indicators than represent the number of candidates he is entitled to vote for, for each office, interlocking mechanism including the interlocking wedges 26 connected by pins to bar 20 is employed. These pins pass through the holes in the bar, indicated by broken lines in Fig. 2, and the parts may be assembled by dropping the pins held in the bar into the slots 26' and so that they rest in the bottom of the slots shown in full lines in said figure, and the construction permits the slight movement of bar and wedge necessary to the interlocking. The particular means of connecting the bar and wedge is not essential and is not of the invention except as hereinafter particularly pointed out. The mechanism is so arranged that if but one candidate is to be elected for an office, the space between two fixed wedges or hubs 27, each held adjustably in position on a shaft 28 by a set screw 29 as shown, is such that only the predetermined number of interlocking wedges 26 can be moved by a register-carrier 20. If a voter is entitled to vote for two candidates for the same office, the space between the stops 27 on the shaft 28 is arranged to permit two of the interlocking wedges 26 to be moved by two register-carriers 20. These carriers or bars are each supported at one end by the shaft 30, and by their attachment to the rotary interlocking wedges. 31 denotes a slot in the carrier to permit the movement of bar 20 on shaft 30.

Another form of wedge construction is shown in Fig. 3 in which 27 denotes annular wedges or hubs adjustably fixed on a shaft

28 by set screws 29 and including between them other wedges for group voting. Intermediate hubs are denoted by 26. Each of the hubs has a screw hole 26^v adapted to receive either a set screw 29 to connect it with an abutment or a screw slidably engaging the shaft. The latter screws act as keys in usual manner to prevent rotation of wedges 26. 26^v denotes wedges adapted to be rotated on the shaft by means of loose connections 20^x pivoted to the offsets 20^x on register-shifting indicator-actuated bars 20. The non-rotatable intermediate hubs 26 prevent any hub 26^v from rotatively moving contiguous hubs or wedges by friction. The pivoted connections 20^x provide for the necessary small movement of the wedges 26 and 26^v lengthwise the shaft. Preferably the hubs will have each face in a single straight plane thereby securing a compact arrangement endwise the shaft and avoiding a possible noisy contact of the hubs in operation. The hub-operating connections are pivoted directly to the hubs for economy of space, and the fixed hubs are secured directly to the shaft for a like reason.

The described interlocking devices cooperate with straight ticket and independent vote devices indicated in the drawings, in which 42 denotes a ballot receiving chute having an open ballot admission end adjacent or within the opening 44 in the face plate, and 43 a receptacle for the ballots. The resetting bar 13 has an extension situated in a transverse seat or opening 45 to hold up the ballot which is of sufficient length to extend above the plate and can be freely changed until such times as the bar 13 is withdrawn to deposit said ballot in the receptacle 43.

33 denotes a straight ticket shaft supporting an indicator 32^x and an extension 38 operatively situated with respect to a projection on bar 20 whereby the bar may be moved and interlocking effected.

To provide for registering, the bar 11 has a slot 12^v which receives a pin 12 whereby when said bar is moved to the right the cross bar 32 is moved up in the path of a registering wheel tooth 32^v which actuates the unit wheel of the register.

The particular construction of these parts is not essential to the operation of the interlocking devices except as indicated and shown and further description is omitted.

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

1. In an interlocking mechanism, the combination with a plurality of operating keys, of a shaft, a plurality of hubs or like parts mounted on the shaft contiguous each other, a portion of the hubs being each pivotally connected with a corresponding key and rotatable on the shaft, and means for fasten-

ing the remainder of the hubs directly to said shaft, each hub having faces in planes cutting the shaft obliquely and co-acting with like faces of other hubs.

2. In an interlocking mechanism, the combination with a shaft, a plurality of operating keys, of a plurality of hubs or like parts mounted on the shaft contiguous each other, a portion of the hubs being each connected with a corresponding key, and means for fastening the remainder of the hubs directly to said shaft, said hubs having their contiguous faces in continuously straight and parallel planes oblique to the shaft.

3. In an interlocking mechanism, the combination with a plurality of operating keys, of a shaft, a plurality of hubs or like parts mounted on the shaft contiguous each other, a portion of the hubs being pivotally connected each with a corresponding key, and means for fastening the remainder of the hubs directly to said shaft, said means passing through the hub to the shaft.

4. In an interlocking mechanism, the combination of the bars, keys loosely connected each to a bar to operate it, rotary interlocking hubs, abutments and a connection between each bar and a hub pivoted directly to the latter.

5. In an interlocking mechanism, the combination of pivoted keys, key bars reciprocated thereby, rotary interlocking hubs, and a connection between each bar and a hub, said connection comprising a bar operatively connected at one end to its hub and at the opposite end pivoted to its key bar whereby said connection may swing transversely to the key bar.

6. In an interlocking mechanism, the combination of key bars, rotary interlocking hubs, and a connection between each bar and a hub pivotally connected to the latter, said bar carrying a register.

7. In an interlocking mechanism, the combination of the bars, keys loosely connected one to each bar to operate it, rotary interlocking hubs, a loose connection between each bar and hub, said hubs having on both sides similar faces co-extensive with the sides and co-acting to produce a wedging action, and abutments having like faces.

8. In an interlocking mechanism, the combination of endwise movable bars, keys connected to the bars and adapted each to move a bar endwise, rotary interlocking hubs directly operated by said bars, and abutments.

9. In an interlocking mechanism, the combination of keys, key-bars moved endwise directly by said keys, rotary interlocking hubs, and abutments, said bars and hubs having a pivotal connection.

10. In a voting machine having a face plate, key bars supported at each end and parallel with the face plate, keys one for each bar connected thereto to move them longi-

tudinally, the support for said bars at one end comprising a shaft, rotary interlocking hubs thereon, and a connection between each bar and the corresponding hub.

5 11. In an interlocking mechanism, the combination of key bars, two shafts transverse and adjacent to said bars, a key or indicator operatively connected to each bar and pivotally movable on one of said shafts
10 to move the corresponding bar longitudinally, a series of interlocking hubs on the second of said shafts, and an operative connection between each key bar and one of the hubs.

15 12. In a voting machine having a face plate, the combination of key bars parallel

to and adjacent to said face plate, two shafts transverse to said key bars an indicator operatively connected to each bar extending through said face plate and pivotally movable on one of said shafts to move the corresponding bar longitudinally, a series of interlocking hubs on the second of said shafts, and an operative connection between each key bar and one of the hubs. 20

In testimony whereof, I have signed this specification in the presence of two subscribing witnesses. 25

CHARLES HERBERT OCUMPAUGH.

Witnesses:

BENJ. R. CATLIN,
C. M. CATLIN.