

H. CATLIN.
CONTROLLING DEVICE.
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1,340,930.

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Fig. 1.

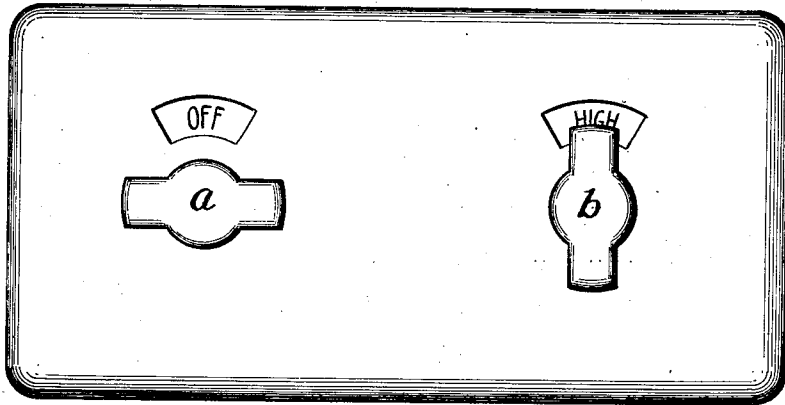


Fig. 2.

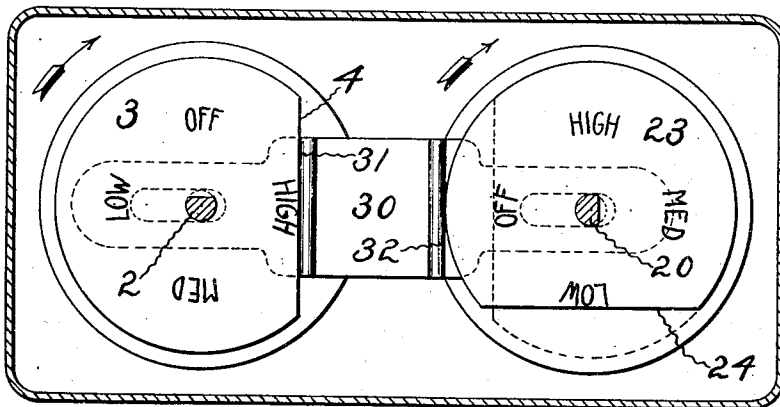
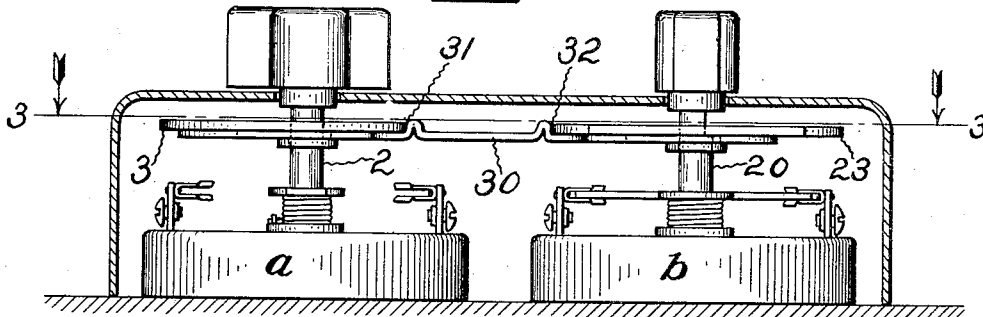


Fig. 3.

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CONTROLLING DEVICE.

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To all whom it may concern:

Be it known that I, HOYT CATLIN, a citizen of the United States, and a resident of New Britain, in the county of Hartford, State of Connecticut, have invented certain new and useful Improvements in Controlling Devices, of which the following is a specification.

The invention relates particularly to a device for controlling the operation of two or more rotatable members, such as spindles, which are positioned at fixed distances apart, the object being to permit of the rotation of certain ones of these members at a time. A particular use to which the invention is adapted is in the control of a pair of rotary electric switches in order that but one of the switches can be operated at a time. The invention will be illustrated and described in connection with its adaptation for use with electrical switches, but it is to be understood that in its broader aspect it is adaptable for use with groups of rotatable members which are other than switch parts.

In the drawings—

Figure 1 is a top plan view of a switch construction to which my improvements are applied.

Fig. 2 is a side view of a pair of rotary switches showing the invention applied thereto.

Fig. 3 is a sectional view taken on a line 3—3 of Fig. 2.

Referring to the drawings—*a*, denotes one of the switches and *b*, the other switch.

The construction of the current translating mechanism of the two switches forms no part of the present invention and is not illustrated in detail. It may be of any form.

The two switches are fixedly mounted on a panel or other suitable support in proper spaced relation with respect to one another.

2, 20, denote the posts of the switches *a*, *b*, respectively, and as is usual they are rotatably supported in the base of the switches. These posts are also in fixed spaced relation to one another.

Mounted on the posts 2, 20, are the disks 3, 23, each of which is flattened at one side as indicated at 4, 24. These disks are rotatable with the posts. Electric switches are customarily of the snap variety and have definite arcs of movement so that the switch parts always come to rest in definite posi-

tions. These disks are so positioned on the posts that one position of rest brings the two flattened sides of the disks into parallelism. Positioned underneath the disks is a locking plate 30, having slotted ends which fit down on to the posts to permit this plate to shift transversely of the posts.

That portion of the locking plate between the disks is provided with upstanding opposite locking shoulders 31, 32, which are spaced apart a distance approximately equal to the distance from the flat part of one disk to the curved part of the other disk as clearly seen in Fig. 3.

As shown in the drawing the switch *b* is in "on" position and the switch *a* is in "off" position. It will be observed that the switch *b* can be rotated to bring about different current effects, and that the switch *a* cannot be rotated because the shifting of the locking plate 30 is prevented by the engagement of the disk 23 with the locking shoulder 32, thus holding the shoulder 31 of the locking plate against the flat side 4 of the disk 3. When the switch *b* is turned to "off" position the two flat sides of the disks 3, 23, are in parallelism with the result that either one of the switches can be then operated, but as soon as one of them is operated, the locking plate is shifted to lock the other switch against operation.

In accordance with the provisions of the patent statutes I have described the principle of operation of my invention, together with the apparatus which I now consider to represent the best embodiment thereof; but I desire to have it understood that the present disclosure is illustrative only of my invention and that my invention is susceptible of various modifications and changes which would be within the spirit of the invention without departing from the scope of the following claims.

I claim as my invention:—

1. In a device comprising a plurality of members rotatable in a single direction in fixed spaced relation to one another, and means operated by the rotation of each of said members to lock the other members against rotation.

2. In a device comprising a plurality of members in fixed spaced relation to one another and each rotatable in a single direction, a locking member, and shifting means operated by the rotation of each of said

rotatable members to engage said locking member with the other rotatable members and hold them against rotation.

3. In a device comprising a plurality of 5 rotatable members in fixed spaced relation to one another, similar parts mounted upon and rotatable with each of said members and each having a curved edge provided with a flattened side, and a locking plate 10 adapted to be shifted by said similar parts transversely of said members and provided with locking shoulders adapted to cooperate with both the curved and flattened portions of said rotatable members.

15 4. A controlling device for rotary switches comprising, in combination with a plurality of switches positioned in fixed spaced relation in respect to one another with rotatable switch posts, disks mounted on each post 20 said disks being flattened at one side, and a locking plate shiftable transversely of said posts and provided with locking shoulders between the edges of said disks and adapted to cooperate therewith to maintain one or 25 more of said switches in "off" position while the other is in "on" position.

5. A controlling device for rotary switches comprising in combination with a plurality 30 of switches positioned in fixed spaced relation in respect to one another with rotatable switch posts, a disk mounted on each of said posts said disks being flattened at one side, the flattened sides being in parallelism when all of said switches are in inoperative or 35 "off" position, a locking plate shiftable transversely of said posts, locking shoulders

on said plate upstanding between the edges of said disks the distance between said shoulders being approximately equal to the distance from the flattened side of one disk 40 to a curved side of the other disk.

6. In a device comprising a plurality of rotatable members in fixed relation to one another, a shifting member on each of said rotatable members and having a portion at 45 a greater distance from its center of rotation than another portion, and a shiftable locking member between said rotatable members and having an abutment associated with each of said shifting members, both of 50 said portions of each of said shifting members being engageable with one abutment of said locking member, the portion of greater distance from the center being adapted when the shifting member is rotated to cause said 55 locking member to move, and the locking member engaging the portion of lesser diameter to lock the shifting member against rotation.

7. In a device comprising a plurality of 60 rotatable members in fixed spaced relation to one another, shifting means on each rotatable member and rotatable therewith, a locking plate having an abutment associated with each of said shifting means, each of 65 said shifting means having a portion adapted to engage an abutment of the locking member to shift the same and a second portion with which the same abutment engages to lock the rotatable member against rota- 70 tion.

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