

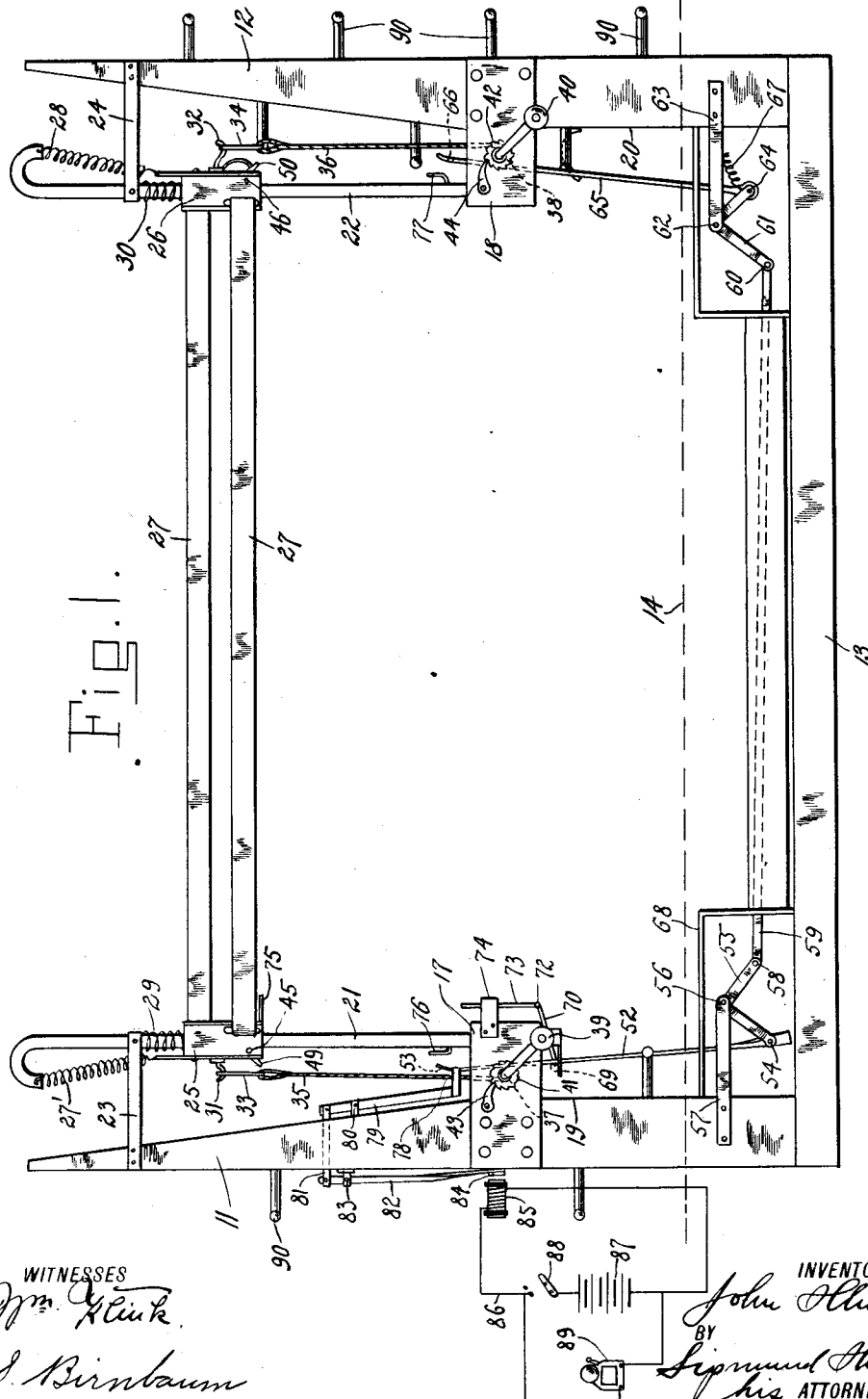
J. HLUDA.
RACE COURSE BARRIER AND STARTING DEVICE.

APPLICATION FILED AUG. 29, 1912.

1,048,966.

Patented Dec. 31, 1912.

3 SHEETS—SHEET 1.



WITNESSES
Jm. Klink
S. Birnbaum

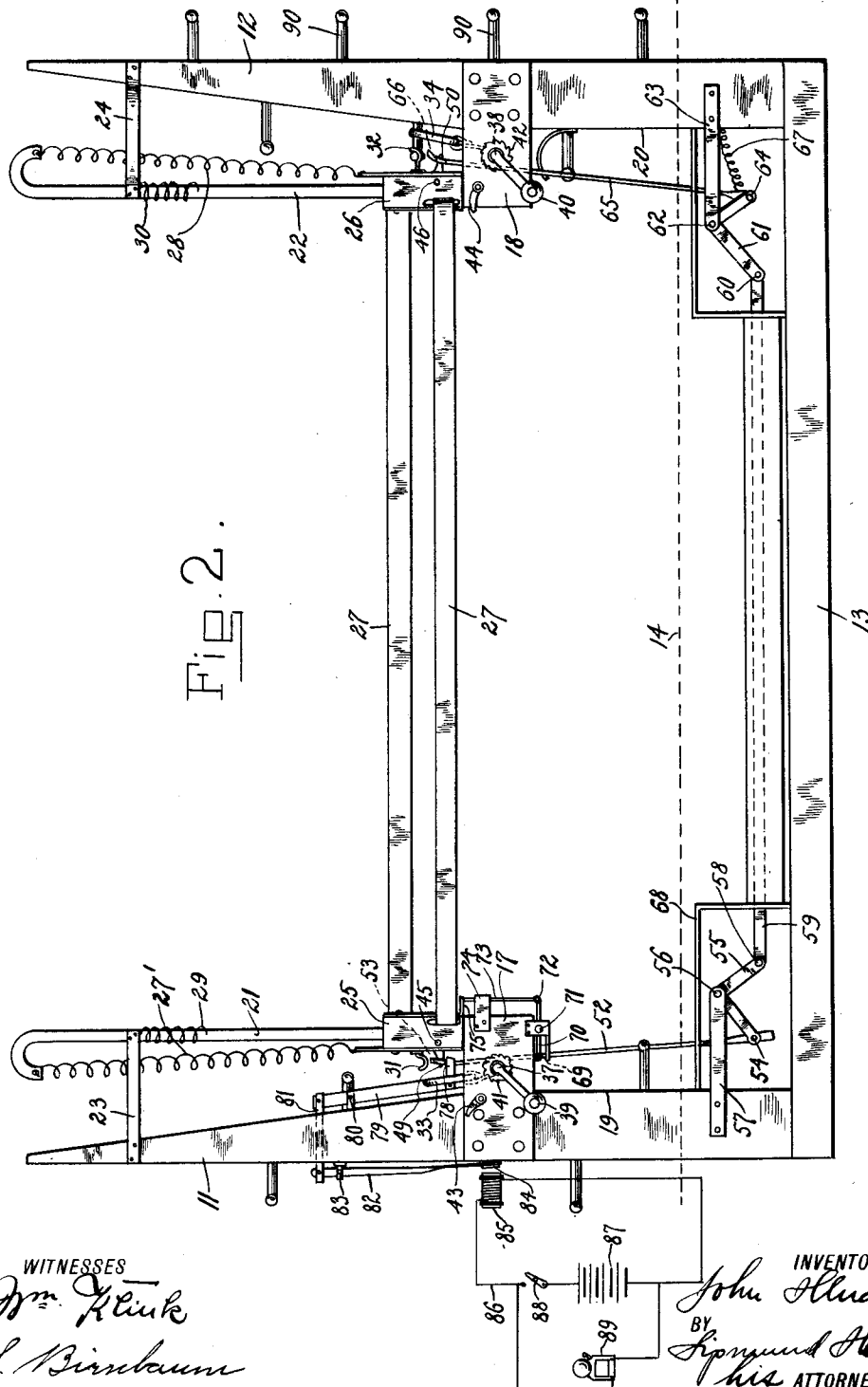
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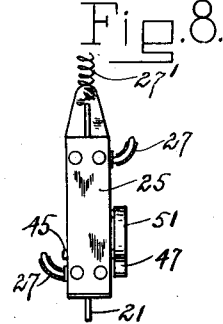
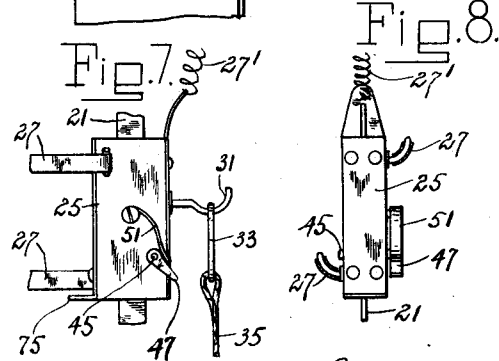
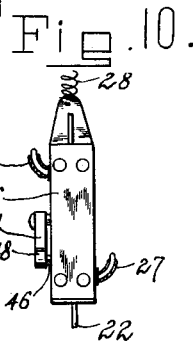
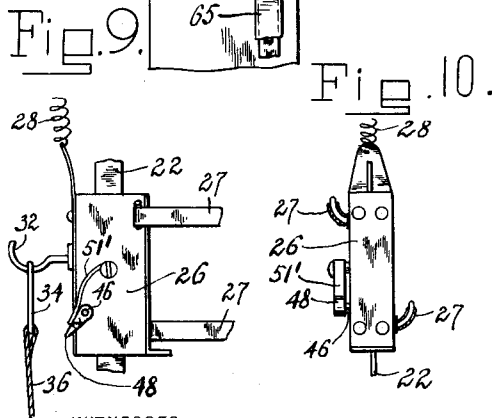
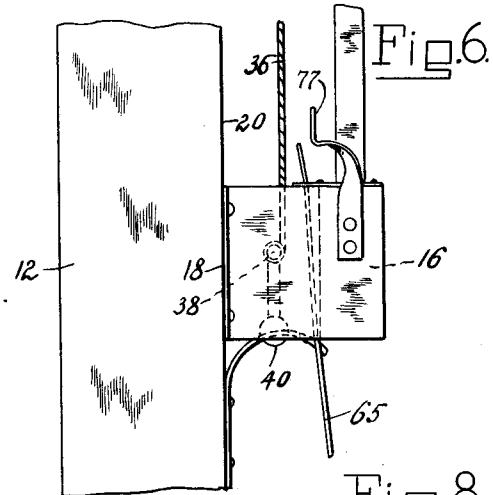
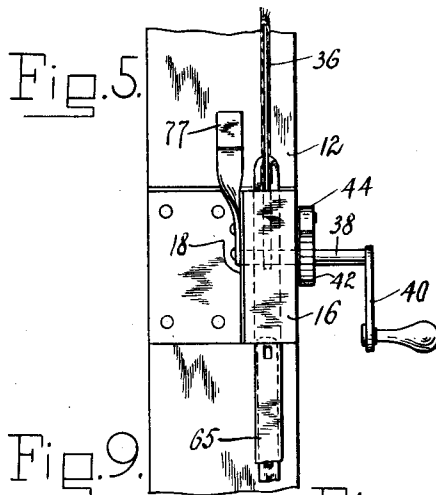
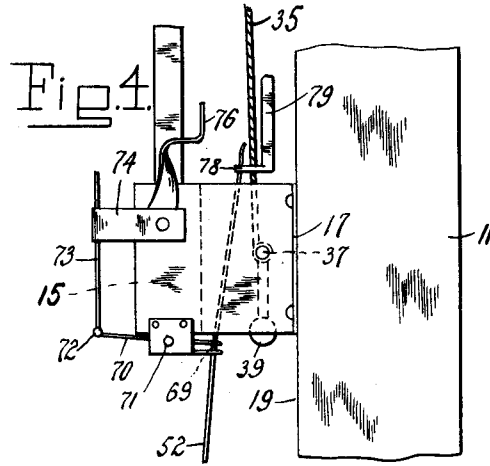
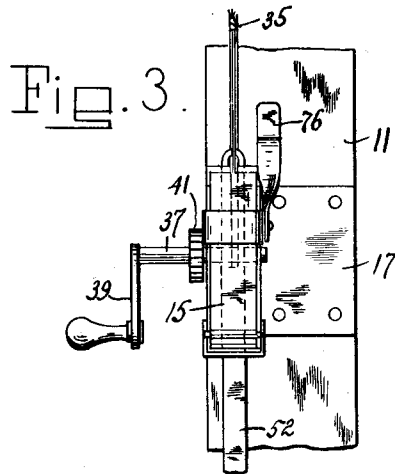


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3 SHEETS—SHEET 3.



WITNESSES
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UNITED STATES PATENT OFFICE.

JOHN HLUDA, OF PORT CHESTER, NEW YORK.

RACE-COURSE BARRIER AND STARTING DEVICE.

1,048,966.

Specification of Letters Patent.

Patented Dec. 31, 1912.

Application filed August 29, 1912. Serial No. 717,754.

To all whom it may concern:

Be it known that I, JOHN HLUDA, a subject of the King of Hungary, and resident of Port Chester, in the county of Westchester and State of New York, have invented certain new and useful Improvements in Race-Course Barriers and Starting Devices, of which the following is a specification.

The present invention relates to a race course barrier and starting device, by means of which the horses on the race course are lined up and a signal for the starting is given.

One of the objects of the invention is to provide a simple, inexpensive and efficient device of this character which can be operated by electrical means from a distant point.

With these and other objects in view, which will more fully appear as the nature of the invention is better understood, the same consists in the combination, arrangement and construction of parts hereinafter fully described, pointed out in the appended claims and illustrated in the accompanying drawings, it being understood that many changes may be made in the size and proportion of the several parts and minor details of construction within the scope of the appended claims without departing from the spirit or sacrificing any of the advantages of the invention.

One of the many possible embodiments of the invention is illustrated in the accompanying drawings, in which:—

Figure 1 is a front elevation of the device in its inoperative position; Fig. 2 is a similar elevation of the same in its operative position; Fig. 3 is a side elevation of the means for holding the tape or barrier in its operative position across the course; Fig. 4 is a rear elevation of the detail shown in Fig. 3; Fig. 5 is a side elevation of the holding means of the tape on the other post of the apparatus; Fig. 6 is a rear elevation of the device shown in Fig. 5; Fig. 7 is a rear elevation of one of the tape carrying sliding heads; Fig. 8 is a side elevation of the device shown in Fig. 7; Fig. 9 is a rear elevation of the other tape carrying sliding head; and Fig. 10 is a side elevation of the device shown in Fig. 9.

In the drawings, the numerals 11 and 12 indicate posts, attached to a transverse base plate 13, which is arranged a substantial distance below the ground line 14. Blocks 15 and 16 are fastened by means of brackets 17 and 18, respectively, to the posts 11 and 12; said brackets being made in the form of plate members, and hold the said blocks a suitable distance from the inner faces 19 and 20 of the posts 11 and 12, respectively. To the blocks are attached upwardly extending vertical guide bars 21 and 22, which are connected near their upper ends with the posts by means of struts 23 and 24 to provide a more rigid structure. In sliding engagement with the guide bars 21 and 22 are heads 25 and 26, respectively, which support barrier tapes 27, 27'. These tapes are held by the heads across the race track at about the height of the noses of the horses, where it will be visible to them when the sliding heads 25 and 26 are kept in their normal operative positions, shown in Fig. 2 of the drawings. Springs 27' and 28 are secured to the sliding heads and the guide bars, which springs are under the tension when the sliding heads are in their normal operative positions. Below the struts 23 and 24 are arranged springs 29 and 30, respectively, said springs being wound upon the guide bars, and serve to absorb the shock when the sliding heads are released and move under the action of the springs 27 and 28 toward the struts.

To the sliding heads are attached hooks 31 and 32, respectively, which are adapted to be engaged by eyes 33 and 34, fastened to cords 35 and 36, respectively, the lower ends of which are fixedly attached to spindles 37 and 38, respectively, which latter are rotatably mounted in the brackets 17 and 18, respectively. To these spindles are keyed or otherwise attached operating handles 39 and 40, respectively, and furthermore ratchet wheels 41 and 42, the teeth of which are adapted to mesh with pawls 43 and 44, the latter being pivotally mounted upon the brackets 17 and 18, respectively. When the eyes of the cords 35 and 36 are in engagement with the sliding heads, and the operating handles 39 and 40 are turned in the proper directions, the said cords will

be wound upon the spindles 37 and 38, respectively, whereby the sliding heads will be drawn downward from their positions shown in Fig. 1 into the positions shown in Fig. 2, into contact with the blocks 15 and 16.

In the sliding heads are oscillatably mounted pins 45 and 46, respectively, which carry upon their free ends projections 47 and 48, respectively. The pins are furthermore provided with inwardly extending lugs 49 and 50, which are adapted to engage means for holding the sliding heads in their normal operative positions, which will be hereinafter described. The projections 47 and 48 of the pins 45 and 46 are held under the action of springs 51 and 51', whereby the lugs 49 and 50 will be held normally in their nearly vertical positions with their free ends pointing downward, for a purpose which will be hereinafter described.

Between the plate members, constituting the bracket 17, is slidably arranged a substantially vertical somewhat resilient bar 52, which is provided near its upper end, which is arranged a little distance above the upper edge of the bracket 17, with a perforation 53. The lower end of the bar 52 is pivoted at 54 to a bellcrank lever 55, the latter being fulcrumed at 56 to a bracket 57, which is attached to the post 11. The other end of the bellcrank lever is pivoted at 58 to a connecting rod 59, which, in turn, is pivoted at 60 to a bellcrank lever 61, said bellcrank lever being fulcrumed at 62 to a bracket 63, which is carried by the post 12. The other end of the bellcrank lever 61 is pivoted at 64 to an upwardly extending bar 65, which is provided with a perforation 66 near to its upper end, which projects above the bracket 18. A spring 67, fastened to the bellcrank lever 61 and the post 12, serves to hold the bar 65 in its upper position, shown in Fig. 1 of the drawings, and thereby the bar 52 in its lower position. The bellcrank levers and the connecting rod now described may be arranged within a casing 68 to prevent foreign matter from interfering with the proper action of these parts. Below the bracket 17 the bar 52 is provided with an opening 69, in which is seated one end of a lever 70, the latter being fulcrumed at 71 to an extension of the bracket 17. The other end of the lever is pivoted at 72 to an upwardly extending strip 73, which is slidably arranged in a guide 74, the latter being attached to the bracket 17. The upper free end of this strip extends normally above the upper edge of the bracket 17, and is adapted to be engaged by a nose 75 upon the sliding head 25.

To the brackets 17 and 18 are secured upwardly projecting vertical extensions 76 and 77, respectively, which serve to engage the projections 47 and 48 upon the pins 45 and 46, respectively, to bring them into their

substantially vertical positions, and thereby the lugs 49 and 50 into their substantially horizontal positions as the same are to be seated into the perforations 53 and 66 in the bars 52 and 65, respectively.

The upper free end of the bar 52 is engaged by the eye 78 of a lever 79, which is fulcrumed at 80 to the post 11, and pivotally connected at its upper end with a slidable link 81, the latter being in a similar manner connected with a lever 82, which is fulcrumed at 83 to the post 11. The lower free end of the lever 82 carries the armature 84 of an electro-magnet 85, which is supported by the post 11. The support, however, has not been shown in the drawings in order to clearly show the electric connections. The electro-magnet 85 is inserted into an electric circuit 86, in which is arranged a suitable source of electric energy 87 and a switch 88, which switch 88 may be located at a distant point. In the electric circuit is furthermore inserted an electric bell 89 of any suitable construction. Obviously said bell will be sounded when the circuit is completed, and indicate thereby that the barrier has been removed and the horses started.

The operation of this device is as follows: In order to bring the barrier tapes 27, 27 into their normal operative positions from those shown in Fig. 1 of the drawings, the operator mounts the rungs 90, 90 upon the posts 11 and 12 and engages the eyes 33 and 34 of the rods 35 and 36 with the hooks 31 and 32, respectively. In bringing the pawls 43 and 44 in engagement with the teeth of the ratchet wheels 41 and 42, and turning the operating handles 39 and 40 in the proper directions, the sliding heads will be moved toward the brackets 17 and 18 against the actions of the springs 27' and 28. When the nose 75 engages the strip 73, the latter will be forced downward and thereby the bar 52 raised against the action of the spring 67, and at the same time, of course, the bar 65 will be lowered. The extensions 76 and 77 force the lugs 49 and 50 into their substantially horizontal positions, whereby the same are seated in the perforations 53 and 66 of the bars 52 and 65, respectively. The bar 52, having a tendency to move downward under the action of the spring 67, will force the projection 47 upon the pin 45 against the upwardly projecting extension of the bracket 17, and prevent thereby the lug 49 from disengaging itself from the perforation 53 in the bar 52. The lug 50 of the spindle 46 is forced by the spring 51' against the upwardly projecting extension 77 of the bracket 18, and prevented thus from being unseated from the perforation 66 in the bar 65. The sliding heads and the barrier tapes carried thereby will thus be held in their normal operative positions, shown in Fig. 1 of the drawings. The cords 35 and 36 are

then disengaged from the hooks 31 and 32 of the sliding heads, whereby the device is ready for operation. When the electric circuit is completed by means of the switch 88, the electro-magnet 85 will attract the armature 84, and thereby move through the intermediary of the levers 82 and 79 the upper end of the bar 52 toward the inner face 19 of the post 11. In doing so, the lug 49 upon the pin 45 is disengaged from the bar 52, which latter will thus move under the action of the spring 67 downward, resulting in the upward movement of the bar 65, which will permit the spring 28 to disengage the lug 50 of the pin 46 from the perforation 66 in the bar 65. The spring 27' being also free to act, the sliding heads 25 and 26 and the barrier tapes 27 carried thereby will move upward upon guide bars 21 and 22, this being the signal for starting.

What I claim is:—

1. In a device of the character described, the combination with two posts, of vertically disposed guide bars thereon, heads slidably arranged upon said guide bars, a tape supported by said heads, springs for moving said sliding heads and the tapes carried thereby to their uppermost positions, interconnected means for retaining said sliding heads against the action of said springs in their lowermost positions, electrically controlled means for disengaging said interconnected retaining means from one of said sliding heads, and means for shifting said retaining means to allow the same to be disengaged from the other one of said sliding heads under the action of its corresponding spring.

2. In a device of the character described, the combination with two posts, of vertically disposed guide bars thereon, heads slidably arranged upon said guide bars, a tape supported by said heads, springs for moving said sliding heads and the tapes carried thereby to their uppermost positions, lugs upon said heads, a plurality of interconnected bars having perforations adapted to be engaged by said lugs to hold said sliding heads against the action of said springs in their lowermost positions, electrically controlled means for disengaging one of said interconnected perforated bars from its corresponding lug, and means for shifting said interconnected bars to allow the same to be disengaged from the other one of said lugs under the action of its corresponding spring.

3. In a device of the character described, the combination with two posts, of vertically disposed guide bars thereon, heads slidably arranged upon said guide bars, a tape supported by said heads, springs for moving said sliding heads and the tapes carried thereby to their uppermost positions, interconnected means for retaining said sliding heads against the action of said springs in

their lowermost positions, electrically controlled means for disengaging said interconnected retaining means from one of said sliding heads, and a spring for shifting said retaining means to allow the same to be disengaged from the other one of said sliding heads under the action of its corresponding first named spring.

4. In a device of the character described, the combination with two posts, of vertically disposed guide bars thereon, heads slidably arranged upon said guide bars, a tape supported by said heads, springs for moving said sliding heads and the tapes carried thereby to their uppermost positions, lugs upon said heads, a plurality of interconnected bars having perforations adapted to be engaged by said lugs to hold said sliding heads against the action of said springs in their lowermost positions, electrically controlled means for disengaging one of said interconnected perforated bars from its corresponding lug, and a spring for shifting said interconnected bars to allow the same to be disengaged from the other one of said lugs under the action of its corresponding first named spring.

5. In a device of the character described, the combination with two posts, of vertically disposed guide bars thereon, heads slidably arranged upon said guide bars, a tape supported by said heads, springs for moving said sliding heads and the tapes carried thereby to their uppermost positions, lugs upon said heads, a plurality of interconnected bars having perforations adapted to be engaged by said lugs to hold said sliding heads against the action of said springs in their lowermost positions, electrically controlled means for disengaging one of said interconnected perforated bars from its corresponding lug, means for shifting said interconnected bars to allow the same to be disengaged from the other one of said lugs under the action of its corresponding spring, means for drawing said sliding heads against the action of said springs toward the perforations in said bars, and means for seating said lugs in said perforations when drawn toward the same.

6. In a device of the character described, the combination with two posts, of vertically disposed guide bars thereon, heads slidably arranged upon said guide bars, a tape supported by said heads, springs for moving said sliding heads and the tapes carried thereby to their uppermost positions, lugs upon said heads, a plurality of interconnected bars having perforations adapted to be engaged by said lugs to hold said sliding heads against the action of said springs in their lowermost positions, electrically controlled means for disengaging one of said interconnected perforated bars from its corresponding lug, means for shifting said in-

terconnected bars to allow the same to be
disengaged from the other one of said lugs
under the action of its corresponding spring,
means for drawing said sliding heads
5 against the action of said springs toward the
perforations in said bars, and means for
automatically seating said lugs in said per-
forations when drawn toward the same.

Signed at New York in the county of
New York and State of New York, this 20th 10
day of May A. D. 1912.

JOHN HLUDA.

Witnesses:

SIGMUND HERZOG,
S. BIRNBAUM.

Copies of this patent may be obtained for five cents each, by addressing the "Commissioner of Patents,
Washington, D. C."
