No. 648,811. Patented May 1, 1900.

C. D. STOVALL.

REMINDER ATTACHMENT FOR SEMAPHORE SIGNALS.

(Application filed Dec. 11, 1899.)

(No Model.) 2 Sheets—Sheet 1.

Fig. 1.

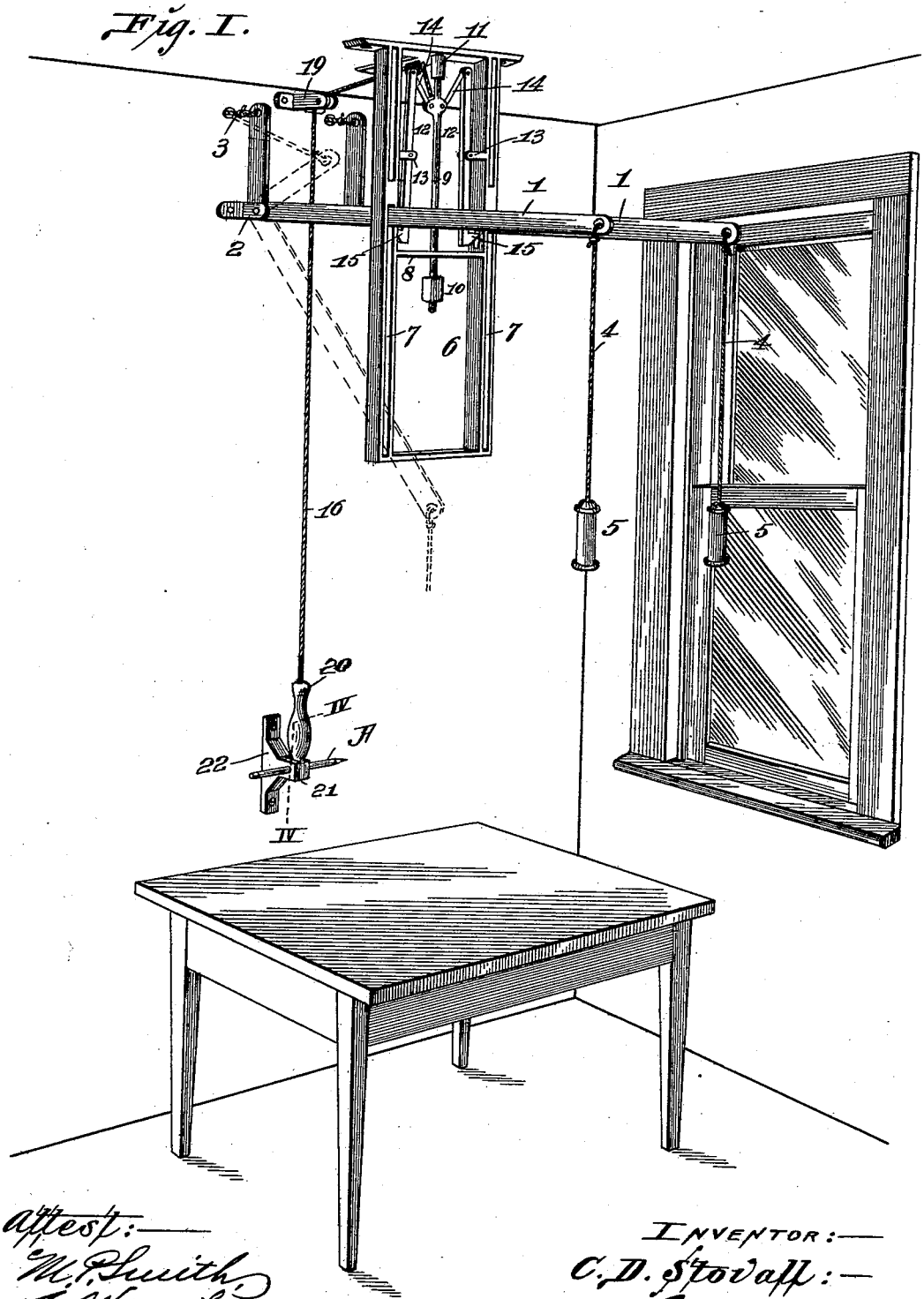

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Fig. III.

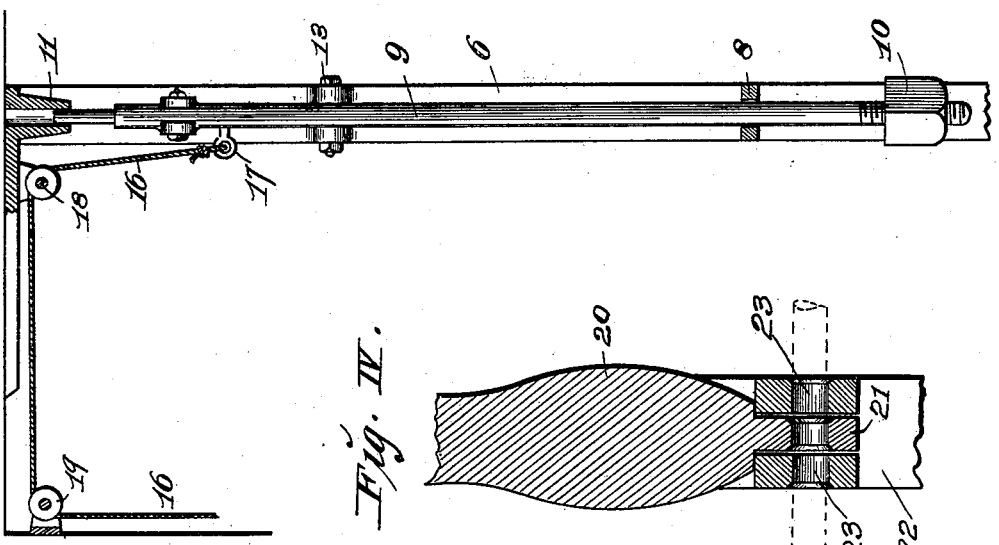


Fig. IV.

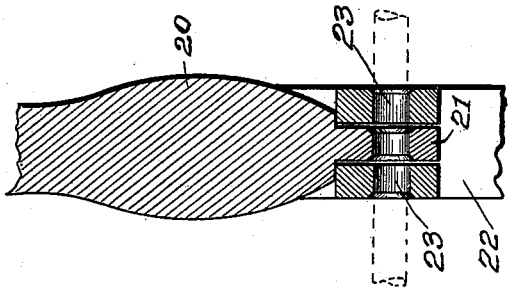
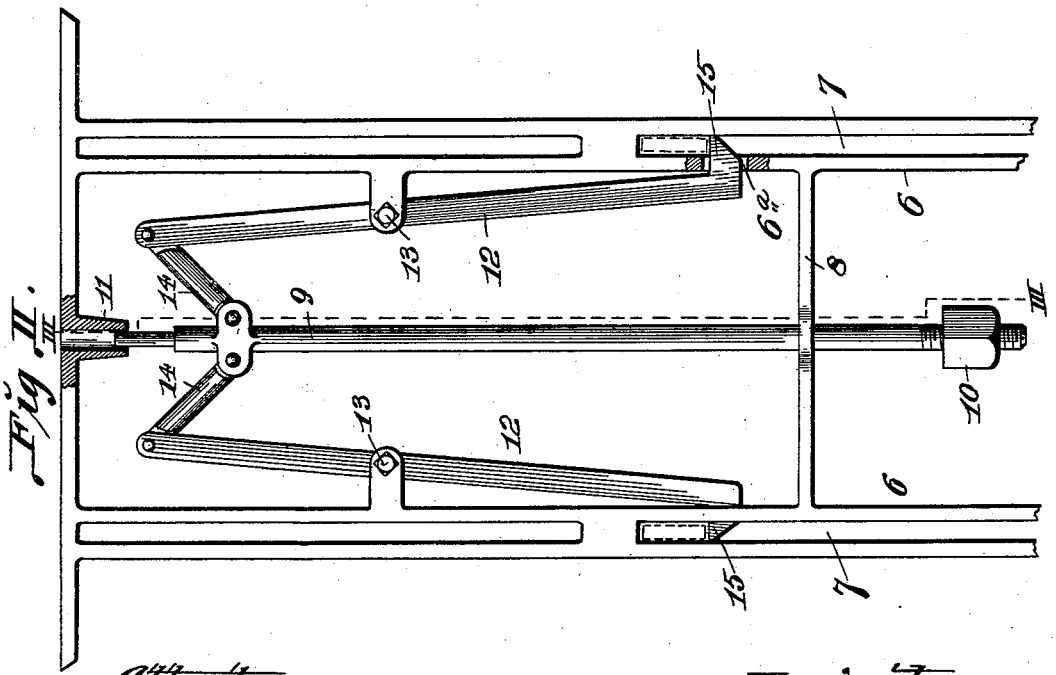


Fig. II.



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UNITED STATES PATENT OFFICE.

COLUMBUS D. STOVALL, OF HIGHLAND, ILLINOIS.

REMINDER ATTACHMENT FOR SEMAPHORE-SIGNALS.

SPECIFICATION forming part of Letters Patent No. 648,811, dated May 1, 1900.

Application filed December 11, 1899. Serial No. 739,864. (No model.)

To all whom it may concern:

Be it known that I, COLUMBUS D. STOVALL, a citizen of the United States, residing at Highland, in the county of Madison and State of Illinois, have invented certain new and useful Improvements in Reminder Attachments for Semaphore-Signals, of which the following is a full, clear, and exact description, reference being had to the accompanying drawings, forming part of this specification.

My invention relates to an attachment to be used in connection with the operating-levers of semaphore-signals to obviate the liability of the operator overlooking the delivery of train-orders.

My invention consists in features of novelty hereinafter fully described, and pointed out in the claims.

Figure I is a perspective view of the operating-levers that connect with the semaphore-signal and my improved appliance shown in connection therewith. Fig. II is an enlarged view, in front elevation, of the frame and locking-bars of my appliance. Fig. III is a vertical sectional view taken on line III III, Fig. II. Fig. IV is an enlarged sectional view taken on line IV IV, Fig. I.

In the use of semaphore-signals the signal is located beside the railway-track and the operating device is commonly located in the operator's room, the pull-cords of such device being located within convenient reach from the operator's table. It is the custom for the operator to manipulate the signal-operating device while in his room in order to give the necessary signals to the trainmen as provided for. It not infrequently happens, however, that the operator neglects, through oversight, to deliver to trainmen orders that he may have received for them, with the result that delays and serious accidents are occasioned from his oversight, and it is the object of my invention to provide a safety device or reminder through the medium of which the attention of the operator is directed to the orders he has to deliver.

1 designates levers pivoted at 2 to the wall of the room in which they are located. Connected to these levers are cords 3, that lead to semaphore-signal arms, so that movement of the levers will cause movement of said arms. Connected to the free ends of the levers 1 are pull-cords 4, equipped with handles 5.

No invention, *per se*, is herein claimed in the parts thus far described.

6 designates a frame, preferably secured to the ceiling of the operator's room and provided with vertical guide-slots 7, in which the levers 1 are adapted to travel. The frame is formed with a cross-bar 8, that connects the two sides thereof and receives a vertical rod 9, adapted to play loosely through the cross-bar 8. The rod 9 is preferably provided with a weight 10 at its lower end and at its upper end is fitted in a socket 11.

12 designates rocking bars pivoted at 13 to the frame 6 and joined to the vertical rod 9 by pivot-links 14. The lower ends of the rocking bars 12 are formed into hooks 15, that are adapted to enter openings 6^a in the frame 6 (see Fig. II) and enter the guide-slots 7 in said frame.

16 designates a pull-cord secured at 17 to the sliding rod 9, said cord passing over pulleys 18 and 19 and being provided with a handle 20, having an apertured end 21.

22 is a bracket fixed to the wall of the room and provided with apertures 23.

When the parts are in their normal position, the signal-operating levers 1 are retained in a horizontal position by reason of the weight of the signal-arms connected thereto, and the levers bear against the frame 6 at the upper ends of the guide-slots 7, as seen in Fig. I. When the operator is at his table, he has need of a stylus or pencil in carrying on his work, and it is my intention that this pencil or stylus be utilized as a means for holding the signal-operating-lever-holding bars free from the levers when no train-orders are in hand for delivery, thereby leaving the signal-operating levers free to be manipulated.

When the operator has no order in his possession to be delivered to the trainmen of a train that is approaching his station, it is intended that the stylus or pencil A be inserted in the bracket 22 through the apertured end 21 of the handle 20 to hold the handle thereto. In putting the stylus or pencil into this position the handle 20 is drawn to the bracket, in which movement the pull-cord 16 draws the vertical rod 9 upwardly and through the

medium of the links 14 throws the upper ends of the rocking bars 21 outwardly and the lower ends of said bars inwardly, thereby removing the hooks 15 from the guide-slots 7 in the frame 6. With the hooks 15 removed from the guide-slots the signal-operating levers 1 are left free to move in the guide-slots, so that the operator may move them by grasping the handles 5 of the pull-cords 4 to give signals to the trainmen of an approaching train that the track is safe and that he has no orders for them. Should, however, the operator receive an order for an approaching train, he removes the stylus or pencil A from the bracket 22 to write the order, thereby freeing the handle 20 from the bracket and permitting the rod 9 to move downwardly and move the upper ends of the rocking bars 12 downwardly and the lower ends outwardly, thereby carrying the hooks 15 into the guide-slots 7, beneath the operating-levers 1. When the hooks are in such position, they engage beneath the signal-operating levers and hold them from movement until the hooks are retracted by a downward pull upon the cord 16. Now it will be seen that when the operator removes the stylus or pencil from the bracket 22 to write the order he has received for the approaching train he frees the pull-cord 16 in the manner described and locks the signal-operating levers against movement. On hearing or seeing the approaching train he grasps the handle 5 of the proper pull-cord 4 to manipulate the signal-operating levers 1 and throw the signal-arm into position indicating safety for the train. In attempting to pull the lever 1 downwardly he finds that it is locked against movement by reason of the engagement therewith of the hooks 15, and the result is that he is reminded that he has received an order for the train and he delivers it to the trainmen instead of forgetting to do so and replaces the stylus or pencil in the bracket and pull-cord handle and then operates the freed levers 1 to throw the signal-arm into safety position.

I claim as my invention—

1. In a device of the class described, the combination with a pair of signal-operating levers, of a frame having guide-slots through which said levers extend, means carried by said frame adapted to engage and support said levers, and means for holding said lever-engaging means normally out of engagement with the levers, substantially as described.

2. In a device of the character described, the combination with a pair of signal-operating levers, of a frame having guide-slots through which said levers extend, a pair of rocking bars having hooks adapted to engage and support said levers, and means for moving said rocking bars; substantially as described.

3. In a device of the character described, the combinatioin with a pair of signal-operating levers, of a frame having guide-slots through which said levers extend, a pair of rocking bars, means for moving said rocking bars, and hooks carried by said rocking bars adapted to be thrown into said guide-slots and engage and support said signal-operating levers; substantially as described.

4. In a device of the character described, the combination with a pair of signal-operating levers, of a frame having guide-slots adapted to receive said levers, a pair of rocking bars pivoted to said frame, hooks carried by said rocking bars adapted to enter said guide-slots and engage said signal-operating levers, a sliding rod mounted in said frame and having connection to said rocking bars, a pull-cord attached to said sliding rod, an apertured handle carried by said pull-cord, and an apertured bracket adapted to receive said handle and a stylus or pencil for holding the handle to the bracket, substantially as described.

COLUMBUS D. STOVALL.

In presence of—
E. S. KNIGHT,
M. P. SMITH.