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Complete Specification Left, 25th Mar., 1903—Accepted, 4th June, 1903

PROVISIONAL SPECIFICATION.

“Improvements in Toy Railway Signals”

I, WILLIAM BRITAIN, Junior, of the Firm of Messrs. W. Britain & Sons, of 28 Lambton Road, Hornsey Rise, in the County of Middlesex, Toy Manufacturer, do hereby declare the nature of this invention to be as follows:

This invention relates to improvements in toy railway signals and the object 5 is to so construct such signals that the semaphore arm or arms after being lowered or set to safety by hand may be raised or reset to danger by the passage of the train or engine.

For this purpose the signal arm or arms are pivoted to the post as usual and the shorter part behind the pivot provided with a pivotally connected rod cord 10 or the like passing down the post which rod is attached to one arm of a double armed lever pivoted at or near the base of the post.

The other arm of the lever forms or is provided with a catch the purpose of which will be hereinafter explained. At one side of the post namely at the side on which is the track or on which the train passes, and at or near the 15 bottom of the post is loosely hinged or pivoted a light arm or lever adapted to be swung in a horizontal plane.

On lowering or setting the signal arm to safety by raising the before-mentioned double armed lever, the shorter arm thereof acts against the swinging arm and swings it outwards into the path of the train, said shorter arm or a catch thereon 20 engaging a bend, detent or the like on the swinging arm and thus acting to hold the latter extended across the track and at the same time preventing the return of the signal arm to danger by keeping the double lever raised, the weight of the latter normally tending to so reset the signal arm.

On passage of an engine or train the latter strikes against the arm extending 25 across the track, swings it in a horizontal plane and thus releases the double armed lever, the weight of which will reset the signal arm to danger being connected therewith by the rod or cord beforementioned.

In the case where a “home” and “distant” signal arm are provided on the same post, the latter arm is actuated or set in a somewhat similar manner to 30 that described and its setting lever or catch may be so shaped or arranged that only one striking or swinging arm is necessary to reset either or both arms to danger on the train passing.

Dated this 25th day of June, 1901.

HERBERT HADDAN & Co.
Agents to Applicant.

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COMPLETE SPECIFICATION.

Improvements in Toy Railway Signals.

I, WILLIAM BRITAIN, Junior, of the Firm of Messrs. W. Britain & Sons, of 28 Lambton Road, Hornsey Rise, in the County of Middlesex, Toy Manu-

[Price 8d.]



Britain's Improvements in Toy Railway Signals.

facturer, do hereby declare the nature of my invention and in what manner the same is to be performed, to be particularly described and ascertained in and by the following statement:—

This invention relates to improvements in toy railway signals and the object is to so construct such signals that the semaphore arm or arms after being lowered or set to safety by hand may be raised or reset to danger by the passage of the train or engine, or when desired by hand also.

In the annexed drawings, Fig. 1 is a side elevation of a signal with one arm constructed according to this invention. Fig. 2 is an end view of such a signal with the arm raised or at danger and Fig. 3 is a side elevation of a signal with two arms, viz: "home" and "distant" arms.

Referring to Figs. 1 and 2, the signal arm *a* is pivoted at *c* to the post *b* as usual and the shorter part *a*¹ behind the pivot *c* is provided with a pivotally connected rod or the like *d* passing down the post, said rod being attached to one arm *e* of a double armed lever *e f* pivoted at or near the base of the post at *g*. Said arm *e* serves as a lever by which the signal arm is lowered.

The other arm *f* of the lever forms or is provided with a catch or the like *h*, the purpose of which will be hereinafter explained. At one side of the post namely at the side on which is the track or on which the train passes, and at or near the bottom of said post is loosely hinged or pivoted in lugs *i* for instance, integral with the foot or base *j* of the post, a light arm or lever *k* adapted to be swung in a horizontal plane.

On lowering or setting the signal arm to safety by raising the before-mentioned double armed lever *e f* the shorter arm *f* thereof acts against and pushes the swinging arm *k* and swings it outwards into the path of the train as shown in Fig. 1, the aforesaid catch *h* on said shorter arm engaging a bend, detent or the like *l* on the swinging arm *k* and thus acting to hold the latter extended across the track and at the same time preventing the return of the signal arm to danger by keeping the double lever *e f* raised, the weight of the latter normally tending to so reset the signal arm.

On passage of an engine or train the latter strikes against the arm *k* extending across the track, swings it in a horizontal plane and thus releases the catch *h* on the lever *e f*, the weight of which will reset the signal arm to danger, being connected therewith by the rod *d* beforementioned.

In the case where a "home" and "distant" signal arm are provided on the same post as shown in Fig. 3, one arm for instance the "home" arm *a* is operated in the same manner as described with reference to Figs. 1 and 2, but the distant arm *a*² is operated by a double lever *m* provided with a pivot pin or the like *n* engaging a slot *o* in the post, and having a hooked shorter arm *p* adapted to engage a pin *q* on the face of the arm *f* of the lever *e f*. By this construction the "home" signal *a* may be lowered and raised independently and on the distant signal *a*² being lowered the latter will be held in such lowered position by the hook *p* passing over and engaging the pin *q*, this being permitted by the pivotal pin working in the slot. Both the arms may be returned to danger simultaneously as on lever *e f* descending the hook *p* loses its support and the lever *m p* consequently also descends by gravity and raises its signal arm.

It is obvious that any convenient number of arms may be arranged on one post and provided with operating levers arranged and adapted to be operated and reset substantially as described.

Having now particularly described and ascertained the nature of my said invention and in what manner the same is to be performed, I declare that what I claim is:

1. A toy railway signal having its semaphore arm or arms adapted to be lowered to safety by hand and reset to danger either by the passage of the train or engine or by hand.

2. A toy railway signal having its semaphore arm or arms adapted to be

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lowered by operating a double armed lever, which forces a horizontal arm into the path of the engine or train, said lever being locked by a catch or equivalent thereon or therein, engaging a bend or the like in said double horizontal arm and released so as to again raise the semaphore or semaphores by the return
5 movement of said horizontal arm on the latter being operated by the engine and train substantially as described and illustrated.

3. In the signal described in Claim 2 the arrangement in which one or more semaphores may be held in lowered or safety position by its or their operating lever or levers being supported or locked by engagement with the operating lever or
10 levers of another semaphore or semaphores and raised or reset at danger simultaneously substantially as described and illustrated.

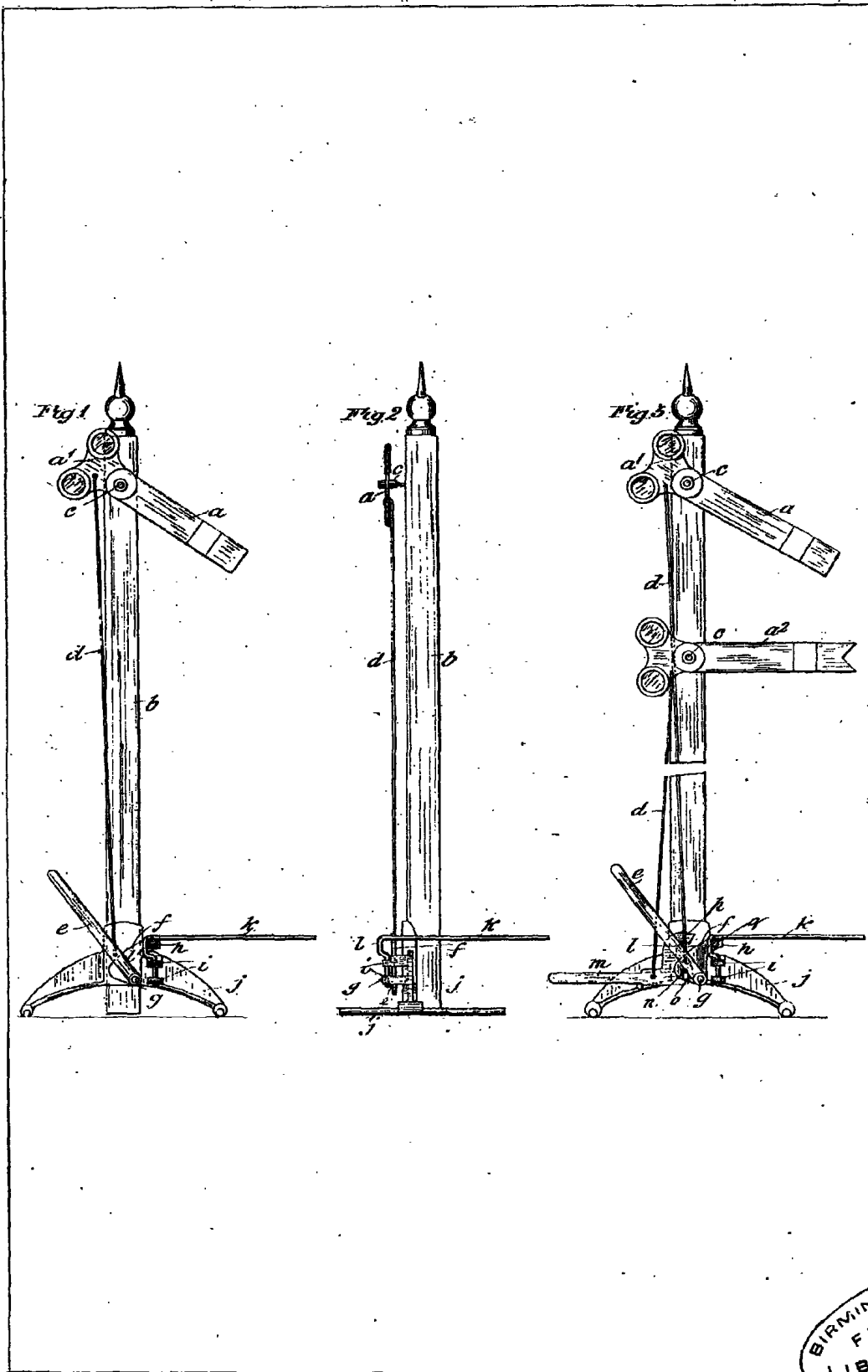
Dated this 25th. day of March 1903.

HERBERT HADDAN & Co.

Agents to Applicant.

18 Buckingham Street, Strand, W.C. London.

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[This Drawing is a reproduction of the Original on a reduced scale.]

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