G. LARSON.

TRAIN INDICATOR.

APPLICATION FILED OCT. 13, 1914.

1,188,282.

Patented June 20, 1916.

2 SHEETS—SHEET 1.

Fig. 1.

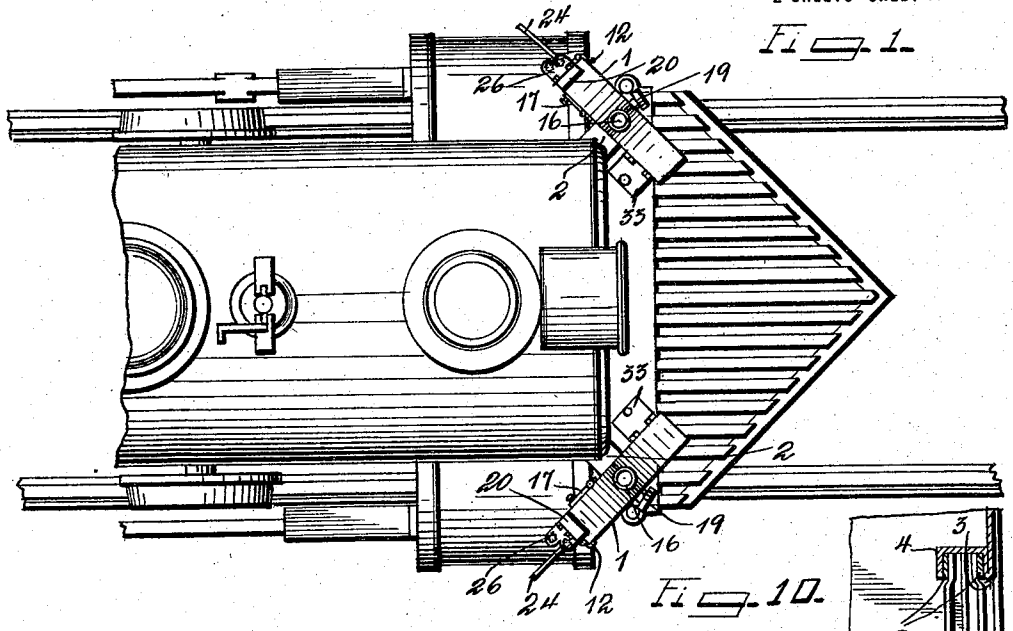


Fig. 10.

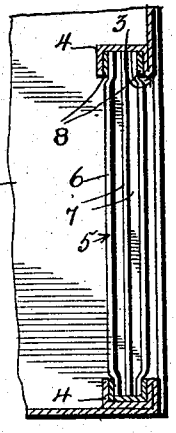
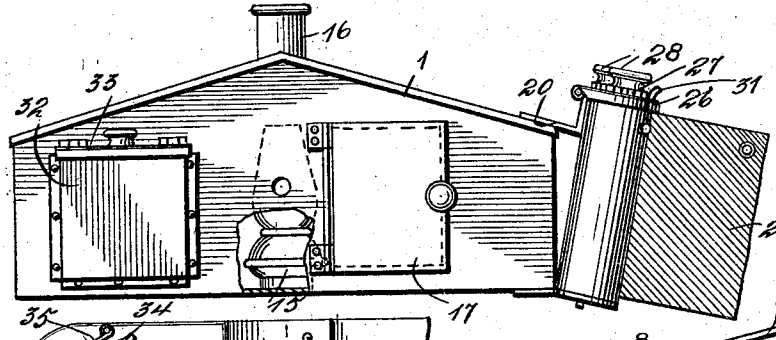


Fig. 3.



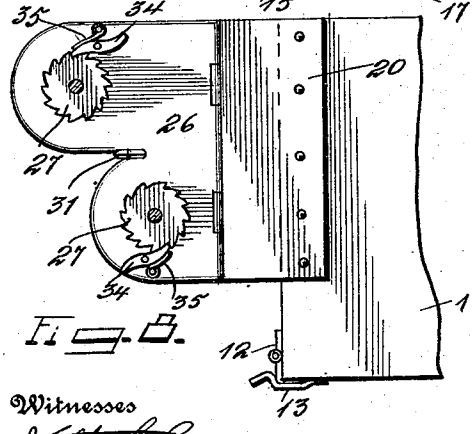
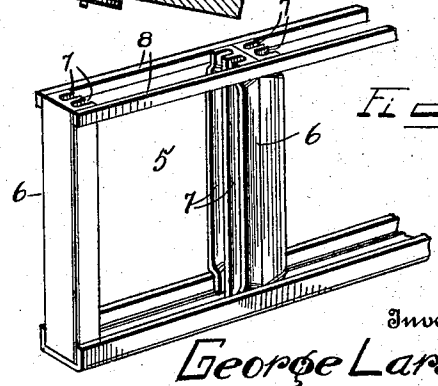


Fig. 8.

Fig. 9.



Witnesses

H. B. Crooman.

Inventor

George Larson.

By E. E. Crooman & Co.,

his Attorneys.

THE COLUMBIA PLANOGRAPH CO., WASHINGTON, D. C.

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2 SHEETS—SHEET 2.

Fig. 2.

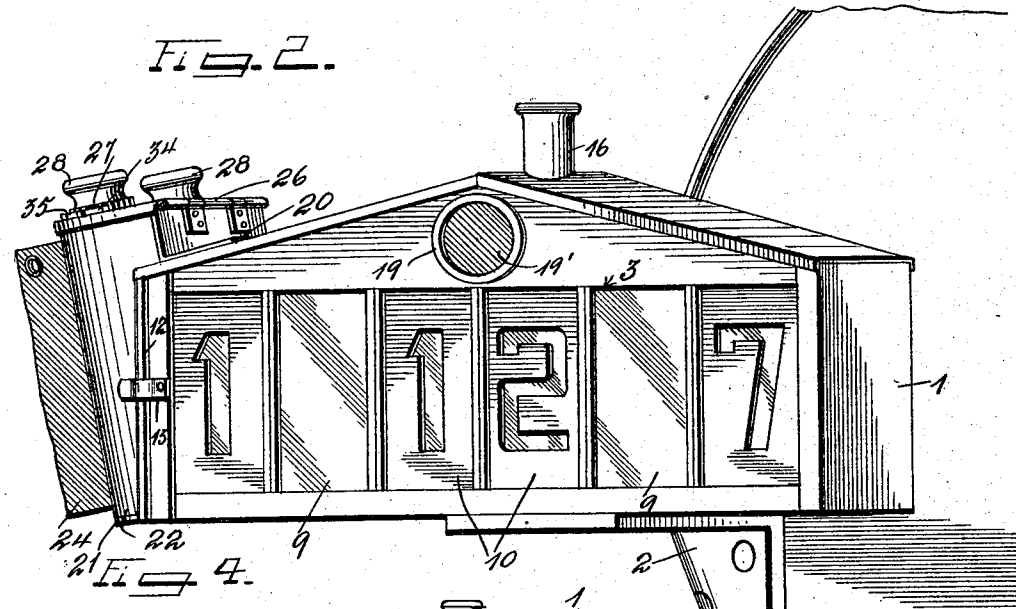


Fig. 4.

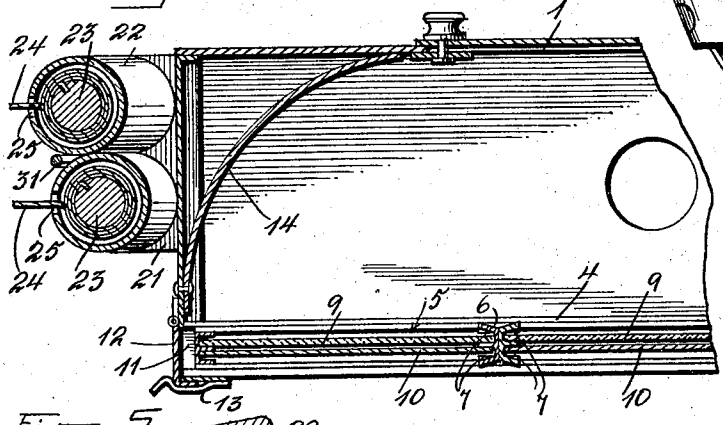


Fig. 6.

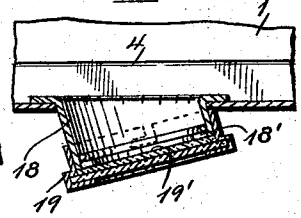


Fig. 5.

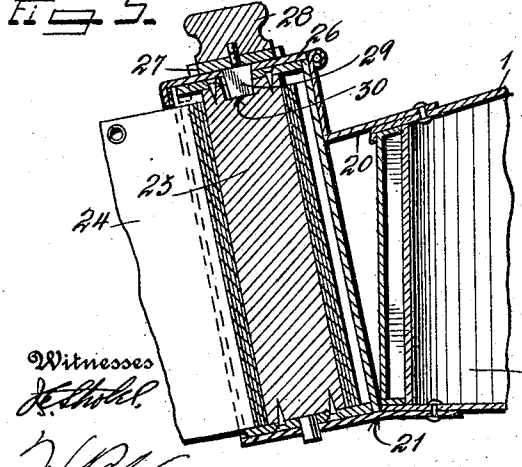
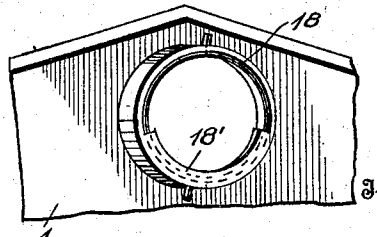


Fig. 7.



Witnesses

H. C. Stoltz.

H. R. Crooman

Inventor

George Larson.

By E. E. Crooman & Co.,

Att'ys Attorneys.

THE COLUMBIA PLANOGRAPH CO., WASHINGTON, D. C.

UNITED STATES PATENT OFFICE.

GEORGE LARSON, OF ROSEBURG, OREGON.

TRAIN-INDICATOR.

1,188,282. Specification of Letters Patent. Patented June 20, 1916.

Application filed October 13, 1914. Serial No. 866,502.

To all whom it may concern:

Be it known that I, GEORGE LARSON, a citizen of the United States of America, residing at Roseburg, in the county of Douglas and State of Oregon, have invented certain new and useful Improvements in Train-Indicators, of which the following is a specification, reference being had therein to the accompanying drawing.

This invention relates to train indicators and has for its object the production of a simple and efficient indicator which may be displayed at a convenient place on the locomotive in order to allow the number of the train to be readily determined from a station platform or from a passing train.

Another object of this invention is the production of a simple and efficient indicator wherein the flag indicating the nature of the train and also the light may be conveniently displayed adjacent the number thereof in order to allow both the nature of the train and the number thereof to be readily determined at one glance.

With these and other objects in view this invention consists of certain novel combinations, constructions, and arrangements of parts as will be hereinafter fully described and claimed.

In the accompanying drawings:—Figure 1 is a top plan view of a portion of the locomotive showing the indicators applied thereto. Fig. 2 is a front view of a portion of the locomotive showing the indicator in perspective. Fig. 3 is a rear elevation of the indicator. Fig. 4 is an enlarged horizontal section through the indicator showing the manner in which the indicating number plates are supported in engagement therewith, and also showing the manner in which the flag housings are mounted relative to the indicator. Fig. 5 is a vertical section taken through one of the flag containing housings showing the manner in which the same is secured to the body of the indicator. Fig. 6 is a horizontal section through the indicating lens. Fig. 7 is a front elevation of a portion of the indicator showing the construction of the indicating lens supporting a socket. Fig. 8 is a top plan view of a portion of the indicator showing the flag housings attached thereto. Fig. 9 is a detail perspective view of a portion of the slide adapted to contain the indicating numbers. Fig. 10 is a vertical section through a portion of the front indicating housing showing the manner in which the slide containing device is supported in engagement with the housing.

By referring to the drawings it will be seen that the indicator is supported upon the front of the locomotive, although, of course, it should be understood that the device may be supported in any portion of the engine without departing from the spirit of the invention. As illustrated, however, the indicator housing 1 is preferably supported upon a bracket 2 carried by the front of the locomotive. This indicator is set at an angle of approximately 45° to the longitudinal axis of the engine or locomotive in order to allow the indicator to be readily read from a passing train. It should be understood that one of these indicators is placed upon each side of the locomotive. Each of the housings 1 comprises an elongated body portion having an opening 3 along the front edge thereof. The housing 1 is provided with a pair of channel members 4 which constitute trackways for the slide carrying frame 5. This slide carrying frame 5 comprises a plurality of vertically extending members 6, which members are provided with vertically extending channel portions 7 for the purpose of receiving the respective slides and numbers adapted to be carried by the slide carrying frame 5. These vertically extending members are braced or connected together by means of the longitudinally extending bars 8 as clearly illustrated in Fig. 9. When in use a ground glass plate 9 is placed in the rear channel and the stencil number plate 10 is placed in front of the ground glass plate. It will, therefore, be seen that the ground glass plate will constitute a back ground for the number when the light is not employed, but when a light is used in the housing 1, it should be understood that the light may be readily thrown upon the ground glass plate and display the number.

By carefully considering Figs. 2 and 5 it will be seen that the housing 1 is closed at one end, but is provided with an opening 11 to allow the slide carrying frame to be readily removed from the housing 1. A door 12 is hingedly secured to the housing 1 and is adapted to normally close the opening 11, and this door is held in a closed position by means of a spring lock 13 which is carried

by the housing 1, and thereby prevent the slide carrying frame from being accidentally detached from the housing 1.

The housing 1 is preferably formed of bright metal so as to constitute a reflector upon the inner face thereof, and to assist in reflecting the light through the plates carried by the housing 1. Reflector plates 14 are carried by the ends of the housing 1 to assist in concentrating the light. It, of course, should be understood that a lamp 15 of any desired construction such as a kerosene, electric or other suitable lighting mechanism may be employed within the housing 1, and it should be further understood that instead of the plates 10 plain blank metal plates may be placed over the glass plates which are not being used for the purpose of numbers so as to allow only the numbers to be displayed upon the front of the indicator casing 1.

The casing 1 is provided with a vent 16 near the top thereof, and a door 17 is secured to the rear of the casing to normally close the opening to which access may be had to the interior of the housing 1. A projecting collar 18 is carried by the top of the housing 1 and over this projecting collar fits a lens carrying cap 19 which is adapted to carry different colored lenses such as red, green or white for giving the desired or usual signals employed upon railroads. Of course, it should be understood that this cap 19 may be connected to the collar 18 by the usual bayonet slot connection. It should be understood that the different colored lenses may be placed on the cap 19 by removing the cap 19 from the collar 18.

The housing 1 carries at one end thereof an upper bracket 20 and a lower bracket 21. The brackets 20 and 21 support a pair of roll carrying housings 22, and these housings are inclined downwardly so as to shed the water from the housing and prevent the rain or other water from dripping into the housing. A roller 23 is mounted within each of the housings 22 and a flag of the desired color 24 is wound upon the roller and projects through the slot 25 formed in the housing 22. It should be understood that these rollers may carry different colored flags for the purpose of allowing either flag to be displayed at the proper time for giving the desired signal.

The bracket 20 carries a hinge cover 26, and this hinge cover 26 carries a plurality of ratchet wheels 27 which are adapted to be operated by means of the knobs 28. The knobs 28 and ratchets 27 carry downwardly projecting square lugs 29 for the purpose of fitting into the socket portions 30 formed in the roller 23 to facilitate the rotation of the roller for the purpose of drawing the flag in the housings 22 when so desired. It should be understood that a spring lock 31 is supported between the housings 22 and overhangs the cover 26 so as to normally hold the same in a set position.

From the foregoing description it will be seen that a very simple and efficient mechanism has been produced for the purpose of displaying all of the desired signals at one point, thereby allowing an observer to readily determine the number or nature of the train which is passing. It should be further understood that in view of the fact that the flag housings are inclined, a portion of the flag will at all times hang out so as to be readily observed.

As is illustrated in Fig. 3 a receptacle or box 32 may be employed for the purpose of storing the stencils therein which are not in use. This box 32 may be provided with a cover 33 as is illustrated clearly in Fig. 3.

As is illustrated in Fig. 8 it will be seen that the ratchet wheels 27 may be engaged by means of pawls 34 which are normally held in engagement with the ratchets 27 by means of springs 35, thereby preventing the rollers from rotating in one direction without first removing the pawl from engagement with the ratchets 27.

It will be seen by considering Fig. 7 that the collar 18 is provided with an inwardly extending flange 18′ extending around a portion of its circumference for the purpose of constituting a means for holding the lenses 19′ within the cap 19.

Having thus described the invention what is claimed as new, is:—

1. In a device of the class described, the combination of a housing comprising an elongated body portion, said body portion provided with an opening along the front edge thereof, said housing being provided with a pair of channel members for the purpose of constituting trackways, a carrying frame slidably mounted on said trackways, said carrying frame provided with a plurality of vertically extending members, said vertically extending members provided with vertically extending channels for receiving numbered slides, longitudinally extending bars adapted to connect together and brace said vertically extending members, said housing provided with an opening at one end only so as to allow said carrying frame to be readily removed from said housing, means provided for preventing accidental detachment of said carrying frame from said trackways in said housing.

2. In a device of the class described, the combination of a housing comprising an elongated body portion, said body portion provided with an opening along the front edge thereof, said housing being provided with a pair of channel members for the purpose of constituting trackways, a carrying frame slidably mounted on said trackways, said carrying frame provided with a plu-

rality of vertically extending members, said vertically extending members provided with vertically extending channels for receiving numbered slides, longitudinally extending bars adapted to connect together and brace said vertically extending members, said housing provided with an opening at one end only so as to allow said carrying frame to be readily removed from said housing, a door hingedly secured to said housing and adapted to normally close said opening thereby preventing said slide carrying frame from being accidentally detached from said housing.

In testimony whereof I hereunto affix my signature in presence of two witnesses.

GEORGE LARSON.

Witnesses:
EVA M. LENOX,
EDWARD VON PEARL.

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