W. A. GOWRIE.

GAGE FOR RAILWAY FROGS.

APPLICATION FILED SEPT. 12, 1916.

1,245,704. Patented Nov. 6, 1917.

Fig. 1

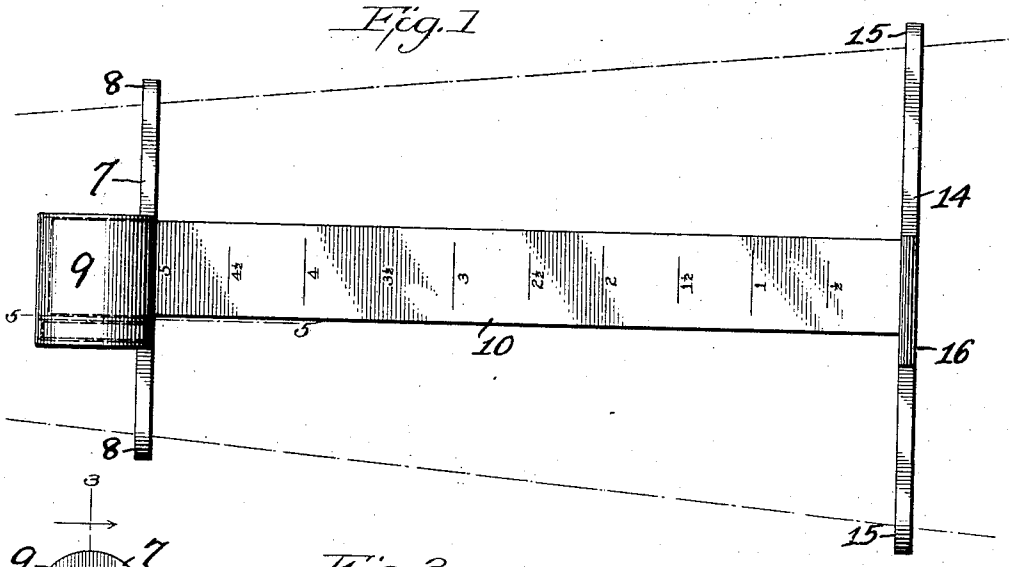


Fig. 2.

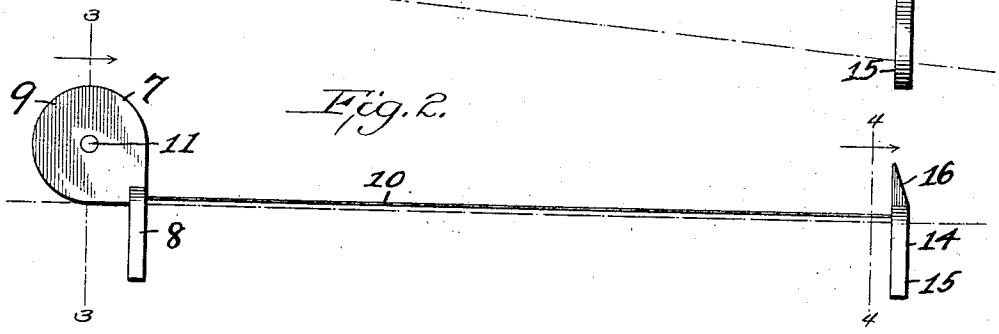


Fig. 3.

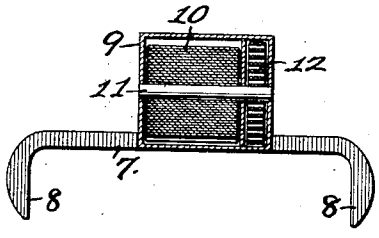


Fig. 4.

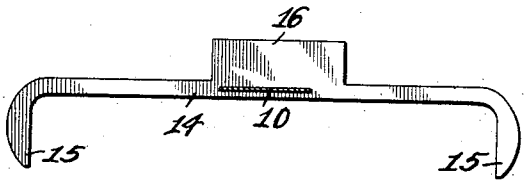


Fig. 5.

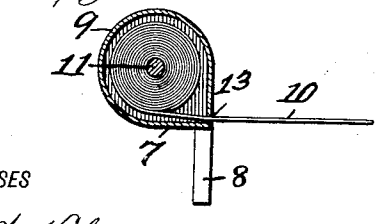
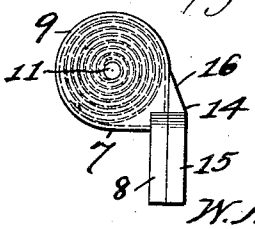


Fig. 6.



WITNESSES

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GAGE FOR RAILWAY-FROGS.

1,245,704. Specification of Letters Patent. Patented Nov. 6, 1917.

Application filed September 12, 1916. Serial No. 119,787.

To all whom it may concern:

Be it known that I, WILLIAM ARTHUR GOWRIE, a citizen of the Republic of Cuba, and a resident of San Pedro de Macoris, Santo Domingo, West India Islands, have invented certain new and useful Improvements in Gages for Railway-Frogs, of which the following is a specification.

This invention relates to gages designed to measure railway frogs, to give the catalogue angle of each frog, and the degree and radius of curve of turn-out from straight track of standard gage for which it is fitted.

My invention is also designed for use in gaging tapering devices of various kinds and classes, and consists primarily of two forked members of definite though differing spans joined together by means of a rolled and spring returned tape of any desired material bearing the scale or scales for the particular use for which it is intended, no effort having been made in the drawings to illustrate any specific scale.

My invention is fully described in the following specification, of which the accompanying drawings form a part, in which like characters refer to like parts in each of the views, and in which:—

Figure 1 is a top plan view of my invention in operative position with respect to an imaginary frog tongue indicated by broken lines;

Fig. 2 is a side view thereof;

Fig. 3 is a section taken on the line 3—3 of Fig. 2;

Fig. 4 is a section taken on the line 4—4 of Fig. 2;

Fig. 5 is a section taken on the line 5—5 of Fig. 1; and Fig. 6 is a side view of the device closed.

Referring to the drawings, 7 represents a member provided with two downwardly directed arms 8 and having a cylindrical casing 9 thereon for a ribbon or tape 10 rolled upon a central shaft 11 in turn engaged with a spiral spring 12 the tendency of which is to roll the tape upon the shaft 11 if it had been manually withdrawn therefrom, said tape having a scale impressed or imprinted thereon and projecting through a slot 13, Fig. 5.

The free end of the tape 10 is secured to a member 14 provided with two downwardly directed arms 15 and with a finger piece 16, the arms 15 being illustrated as spaced farther apart than are the arms 8 of the member 7, although this could be reversed, but it will be noted that the spacing of the arms is definite and, according to the use to which the device will be intended, these spacings bear a positive and constant relationship to each other, and this constitutes the underlying principle of my invention.

In gaging anything having tapering sides, all that is necessary is to apply the member 7 so that its arms 8 are bearing upon the tapered sides of the article, preferably perpendicular to the longitudinal axial plane taken vertically on a central line of the article, after which the member 14 is moved along the article until the arms 15 thereof bear upon the tapered sides of the article, and the readings on the tape will show the distance of separation of the members 7 and 14 and thus by reference to a separate table prepared for this purpose the degree of inclination of the sides of the article may be quickly determined and said readings may also show, when used in railway work, any suitable data pertaining to frogs, or said tape may bear any scales for any special purpose.

I am aware that gages of similar intent have been heretofore employed, but I am not aware of any constructed in a manner similar to mine, comprising two substantially similar forked members adapted each to transversely straddle the tapered article to be gaged along different points of the length of the article, and connecting said members with a tape or other scale to determine the distance of separation of the centers of the members and thus by reference to a separate table prepared for this purpose determine the degree of angularity of the tapered sides of the article, or, for special purposes, to take readings of other special import.

My gage is very light, compact, strong, and comparatively inexpensive, and, consisting of but three main parts, is not likely to get out of order to require repair. While I have shown certain structural details which operate in the manner designed, it will be evident that I may make changes thereover, provided such changes come within the spirit of the invention and do not

depart from the scope of the appended claims.

Having fully described my invention, what I claim as new, and desire to secure by Letters Patent, is:—

1. A gage of the type described, comprising a pair of gage arms having parallel angular extensions, of which the extensions of one arm are spaced farther apart than those of the other, a flexible graduated tape connecting the arms and secured to one thereof, and a reel connected by the other of said arms and on which the tape is wound.

2. A gage of the type described comprising a pair of gage arms having parallel angular extensions, of which the extensions of one arm are spaced farther apart than those of the other, and a flexible graduated tape secured to one of said arms and having an adjustable connection with the other of said arms, substantially as described.

WILLIAM ARTHUR GOWRIE.

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