

(No Model.)

2 Sheets—Sheet 1.

S. McMANUS.

RAILWAY TRACK GAGE AND LEVEL.

No. 323,351.

Patented July 28, 1885.

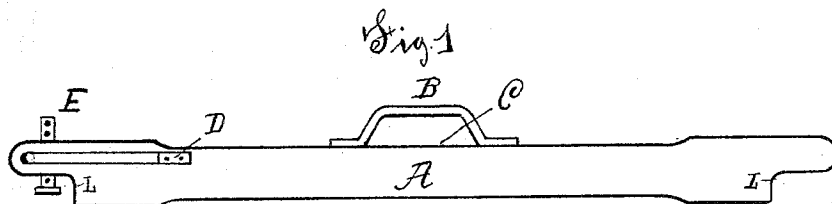


Fig. 2

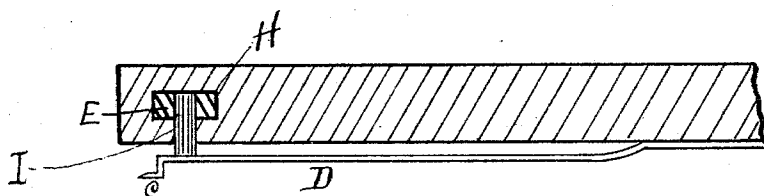


Fig. 3

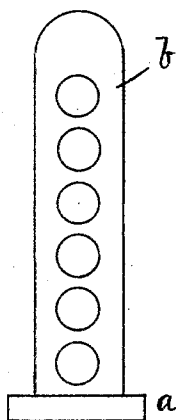
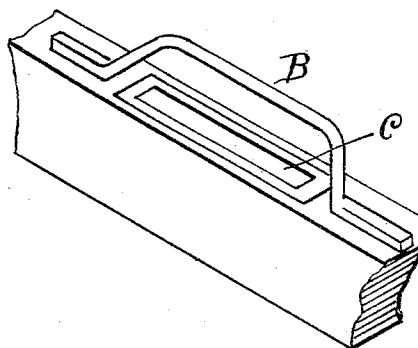


Fig. 4



Witnesses

Henry De Haven
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Inventor

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per
L. J. Stanton
att'y

(No Model.)

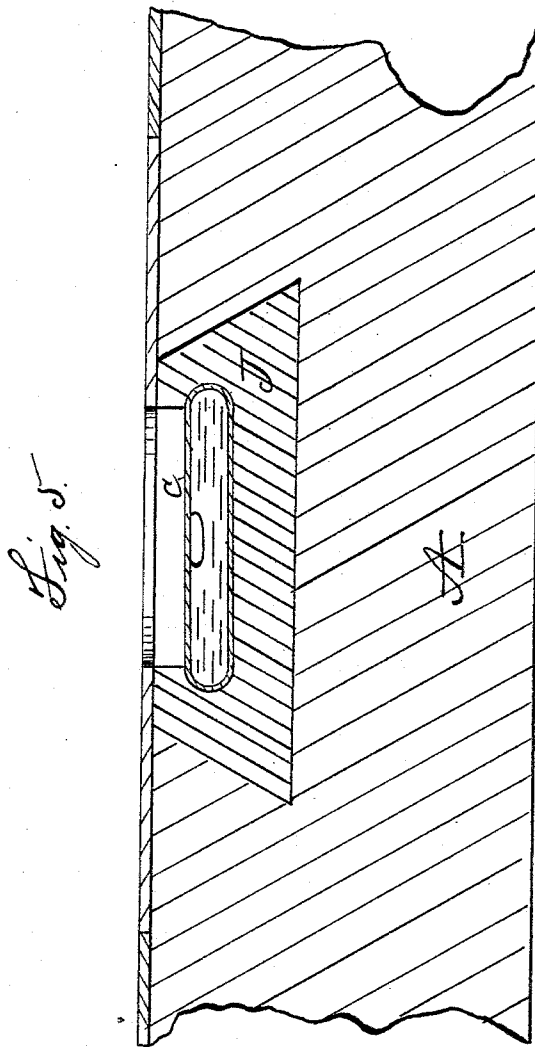
2 Sheets—Sheet 2.

S. McMANUS.

RAILWAY TRACK GAGE AND LEVEL.

No. 323,351.

Patented July 28, 1885.



Witnesses,

Theron B. Brown

Cassius M. Norton.

Inventor,
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UNITED STATES PATENT OFFICE.

SAMUEL McMANUS, OF MARSHALLTOWN, IOWA.

RAILWAY-TRACK GAGE AND LEVEL.

SPECIFICATION forming part of Letters Patent No. 323,351, dated July 28, 1885.

Application filed December 20, 1884. (No model.)

To all whom it may concern:

Be it known that I, SAMUEL McMANUS, a citizen of the United States, and a resident of Marshalltown, in the county of Marshall and State of Iowa, have invented a new and useful Railway-Track Gage and Level, combined, of which the following is a specification.

My invention consists in the construction and combination of a gage, a spirit-level, a spring-catch, and a self-adjusting standard, as fully shown in the accompanying drawings, in which—

Figure 1 is a side view. Fig. 2 is a sectional view of the end of the gage. Fig. 3 is a view of the standard. Fig. 4 is a perspective view of the middle of the gage; and Fig. 5 is a sectional side view of the gage, showing my manner of fixing the level.

A is a bar of wood or other light material, of the proper length, and having at its ends shoulders L L, which are so shaped as to fit closely the tops of the rails when they are properly adjusted.

B is a handle, of round iron, attached to the top of the gage itself.

C is a spirit-level, which has cast upon it a lump or ball, J, of rubber or felt, of such size as to fit very closely in a recess in the upper edge of the gage A. The elastic material must require much pressure to introduce it into this recess, which is of such shape that it is fully filled by the expansion of the said material when pressure is removed, (see Fig. 5,) and which is preferably narrowed at the top.

Near one end of the gage, and directly over its point of contact with the rail, is a rectangular orifice extending vertically through the shoulder L. Fitting closely in this channel is the standard E, made of metal, and having in it a series of holes, b.

Attached to the side of the gage is a ratchet-spring, D, which is made of a flat steel band about one-half an inch wide throughout its entire length and about twelve inches long, and which is twice bent at right angles at its extremity, forming a thumb-piece, c. Integral with D, and passing transversely through an orifice in the gage to the channel H, is a tooth, I, of such dimensions as to readily enter and engage the holes b in the standard.

In the practical operation of my invention the rails are adjusted in the usual manner. The spring is then moved back by means of the thumb-piece until the tooth I no longer engages the standard. The weight of the standard moves it down until its foot a rests on the rail. On releasing the spring D the tooth I again enters a hole in the standard, thus indicating the difference in elevation between the rails.

I am aware that springs attached at one end and having teeth at the other have been used in various devices, but they differ entirely from my spring in shape and construction. The combination of the spring D, the thumb-piece c, the tooth I, and the self-adjusting standard E is both new and greatly advantageous.

I am aware that rubber tubing has been used to protect spirit-levels, both the level and the rubber being set in plaster-of-paris or a similar composition; but the embedding a level in elastic material, which retains its position because of the shape of the recess in which it is fixed and its own expansibility, is new and especially adapted to track-gages, inasmuch as it makes a very solid but very elastic packing, which protects the glass from jars.

My handle B is a curved bar of round iron, which is attached directly to the wood of the gage.

By having shoulders L L cut in the gage, which fit the tops of the rails, I dispense with lugs and other similar devices.

I claim that my combination of the elements before named gives my gage superiority in lightness, convenience, and durability.

I claim—

1. In a track-gage, the combination of the level C in the packing J, the standard E, the tooth I, the spring D, the thumb-piece c, and the handle B, substantially as and for the purposes shown and described.

2. The combination of the bar A, the level C in the packing J, the standard E, the tooth I, the spring D, the thumb-piece c, and the handle B, as shown and described.

SAML. McMANUS.

Witnesses:

T. B. PIERSON,
O. F. BURGESS.