

S. MORANO,
RAIL ADJUSTING AND GAGING DEVICE.
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1,326,953.

Patented Jan. 6, 1920.

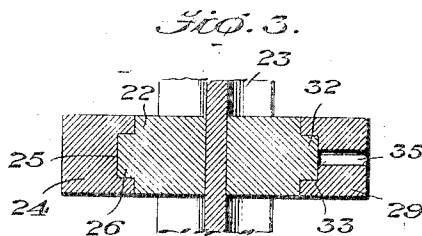
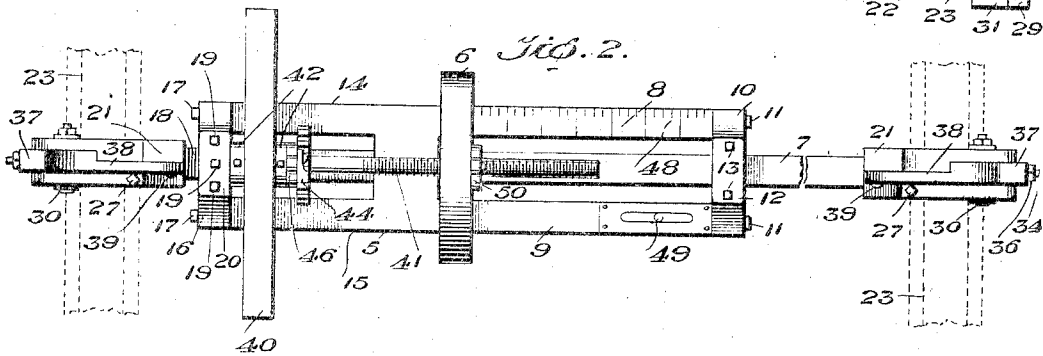
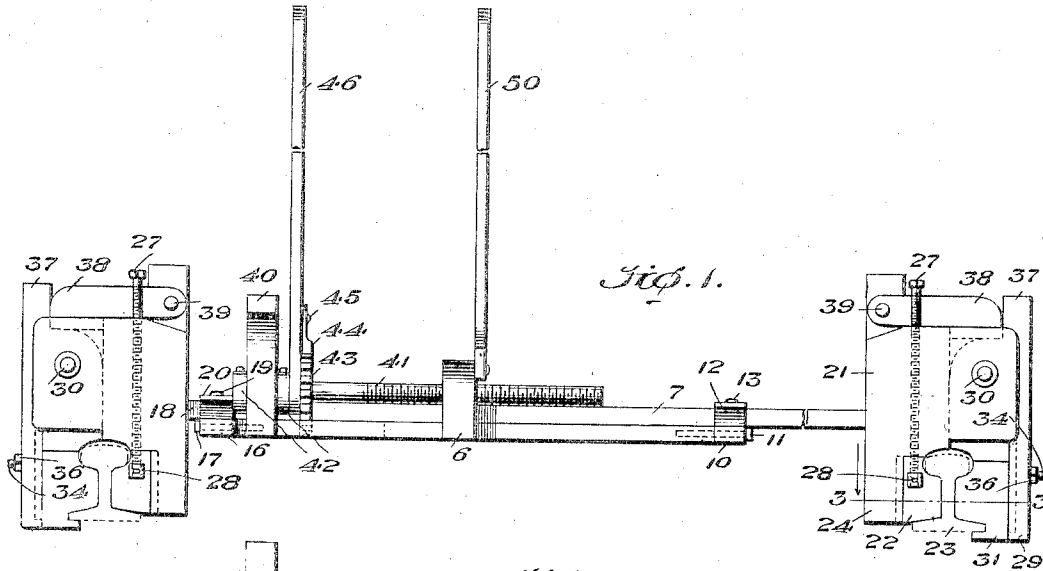
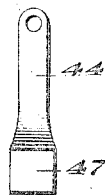


Fig. 4.



Witness
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UNITED STATES PATENT OFFICE.

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RAIL ADJUSTING AND GAGING DEVICE.

1,326,953.

Specification of Letters Patent.

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To all whom it may concern:

Be it known that I, SAM MORANO, a citizen of Italy, residing at Wendel, in the county of Taylor and State of West Virginia, have invented certain new and useful Improvements in Rail Adjusting and Gaging Devices, of which the following is a specification.

This invention relates to certain new and useful improvements in rail adjusting and gaging devices and has among its many objects the provision of a device of this character which is durable in construction, efficient in operation, and capable of being easily placed into practical use.

Another object of the device is the provision of adjustable rail engaging members adapted to embrace rails of differing sizes and provided with means to move the same toward and away from each other in order that the rails may be accurately positioned parallel with each other at the proper distance apart.

With the above general objects in view and others that will become apparent as the nature of the invention is better understood, the same consists in the novel form, combination and arrangement of parts hereinafter more fully described, shown in the accompanying drawing and claimed.

In the accompanying drawing, in which like reference characters indicate corresponding parts throughout the several views,

Figure 1 is a side elevational view of a device constructed in accordance with the present invention, the rails being positioned between the clamping members as shown by dotted lines,

Fig. 2 is a plan view of the device shown in Fig. 1,

Fig. 3 is an enlarged sectional view taken substantially upon line 3—3 of Fig. 1, and

Fig. 4 is an enlarged elevational view of the pawl of the operating lever.

Referring more in detail to the several views, the present invention embodies a base 5 of substantially H-shape in plan and having a slide 6 mounted thereon. The slide 6 has a bar 7 rigidly attached thereto in any suitable manner and said bar extends between the longer legs 8 and 9 of the base 5 and outwardly through a slot formed in the upper face of the end bar 10 which is rigidly

fastened against the ends of the legs 8 and 9 by means of stud bolts 11 or the like. The bar 7 is maintained within the slot of the bar 10 by means of the detachable plate 12 which is fastened upon said bar 10 by any suitable means such as the stud bolts 13.

The shorter legs 14 and 15 of the base 5 are connected by an end bar 16 similar to the bar 10 and fastened in a like manner by means of stud bolts 17 against the ends of said legs 14 and 15. The bar 16 is provided with a slot in its upper face within which the bar 18 is rigidly fastened by means of the bolts 19 and plate 20.

Upon the outer ends of the bars 7 and 18 are provided similar rail clamping devices each of which embody a block 21 rigidly fastened to the ends of said bars 7 and 18 and having a vertically adjustable rail engaging member 22 adapted to partially embrace the ball of the rail 23 and to lie against the inner face of the web thereof as well as upon the upper face of the inner flange thereof. The block 21 is cut out to provide a depending leg 24 provided with an edge groove 25 for reception of the rib 26 provided on the rail engaging member 22 so that said member is allowed vertical movement but prevented from lateral movement. An adjusting screw 27 is threaded through the block 21 and has its lower end swiveled as at 28 to the rail engaging member 22, said screw being provided with an angular upper end for reception of a wrench or handle whereby the screw may be rotated and thus cause vertical movement of the rail engaging member in the desired direction.

An outer jaw 29 is pivotally attached as at 30 to the block 21 and is provided with a vertically adjustable rail engaging member 31 formed to embrace a portion of the ball of the rail 23 as well as the outer flange of the base of said rail. The rail engaging member 31 is provided with an edge rib 32 fitting within the groove 33 of the outer jaw 29 so as to allow vertical movement of said member 31 without allowing lateral movement of the latter. A bolt 34 is rigidly attached to the member 31 and projects outwardly through the vertically elongated slot 35 provided in the outer jaw 29, a nut 36 being threaded on said bolt so as to maintain the member 31 in its various vertically adjusted positions. It is obvious, in view of the fore-

going, that were the rail 23 provided with a larger ball, the members 22 and 31 could be lowered so as to accommodate the same. The jaw 29 is provided with a projecting upper end 37 behind which engages a latch bar 38 so as to hold the member 31 in engagement with the rail, said bar 38 being pivoted as at 39 to the block 21. If it is desired to release the jaw 29 and member 31, the bar 38 may be swung upwardly and said jaw 29 is then free to be swung away from the rail.

A plate 40 is rigidly fastened in any suitable manner to the legs 14 and 15 adjacent the bar 16, and a screw 41 which is arranged longitudinally of the base 5 has one end freely journaled in said plate and maintained against longitudinal movement by means of the collars 42. A gear wheel 43 is fastened upon the screw 41 and its teeth are engaged by the pawl 44 which is pivoted as at 45 to the lever 46, which lever is arranged between the wheel 43 and the adjacent collar 42 and mounted so as to freely turn about the screw 41. The pawl 44 is provided with an enlarged angular end 47 as shown in Fig. 4 so as to operatively engage the teeth of the wheel 43 when said pawl is arranged at either side of the lever 46. As shown in Fig. 2, the pawl 44 is disposed to engage the teeth of the wheel 43 so as to rotate the latter only when the lever 46 is moved downwardly, but by swinging the pawl 44 on its pivot 45 to the opposite side, said pawl is disposed to engage the teeth of the wheel 43 and cause rotation of the latter when the lever 46 is moved upwardly of said Fig. 2.

The screw 41 is threaded through the slide 6 so as to cause movement of the latter and the bar 7 toward and away from the plate 40 in accordance with the direction of rotation of said screw. Such movement of the bar 7 and slide 6 will obviously cause movement of the rail clamp which is carried by said bar 7 toward and away from the clamp carried by the bar 18.

In order to accurately gage the distance that the rails 23 are adjusted relative to each other, the base 5 is provided with a number of transverse graduations 48, preferably disposed upon the leg 8 in the path of movement of the slide 6, and, when it is desired to have the rails level, the device may be provided with a bubble level 49 countersunk at any suitable position in the upper face of the base 5. A handle 50 may be rigidly attached to the slide 6 to be grasped together

with the lever 46 for carrying the device from one position to another.

In the operation of the present device, the same is positioned as shown in Fig. 1 with the rails securely clamped between the members 22 and 31, and the screw 41 is then rotated to move the rails 23 toward each other until the slide 6 has reached the proper graduation on the base 5, at which time the rails are positioned at the proper distance apart.

From the foregoing description, it is believed that the construction, operation and advantages of the present device will be readily apparent to those skilled in the art.

While the form of the invention herein shown and described is what is believed to be the preferable embodiment thereof, it is nevertheless to be understood that minor changes may be made in the form, combination and arrangement of parts without departing from the spirit and scope of the invention as claimed.

What I claim as new is:—

1. A rail adjusting and gaging device including a pair of rail clamps, and means to adjust said clamps toward and away from each other, said clamps each including a pair of opposite rail web engaging members vertically adjustable to accommodate rails of various sizes.

2. A rail adjusting and gaging device including a base having a vertical plate and a rail clamp rigidly fastened thereto adjacent one end, a screw extending longitudinally of the base and having one end journaled in said plate, a slide plate mounted on said base and having said screw threaded therethrough, a bar slidably guided by said base for longitudinal movement relative to the latter and having its inner end rigid with said slide plate, a second rail clamp rigid upon the outer end of said bar, said base being provided with transverse graduations situated in the path of movement of said slide plate, and means to rotate said screw.

3. A rail adjusting and gaging device including a pair of rail clamps and means to adjust said clamps toward and away from each other, said clamps each including a block having an outer jaw pivoted thereto, means carried by said block to releasably maintain the outer jaw adjacent said block, and vertically adjustable rail engaging members carried by said block and outer jaw.

In testimony whereof I affix my signature.
SAM MORANO.