

Sept. 25, 1928.

1,685,455

S. L. JOINER
COMBINED WEAR PLATE AND CENTERING DEVICE FOR
DRAFT RIGGING KEYS FOR RAILWAY CARS
Filed April 14, 1926

Fig. 1.

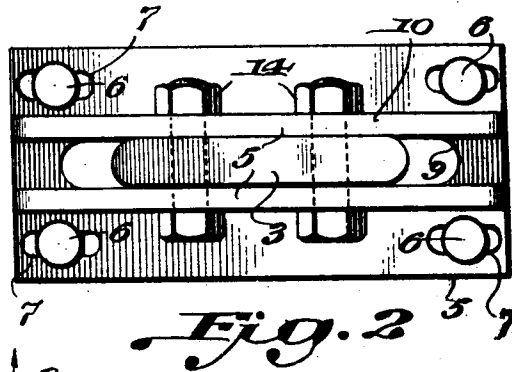
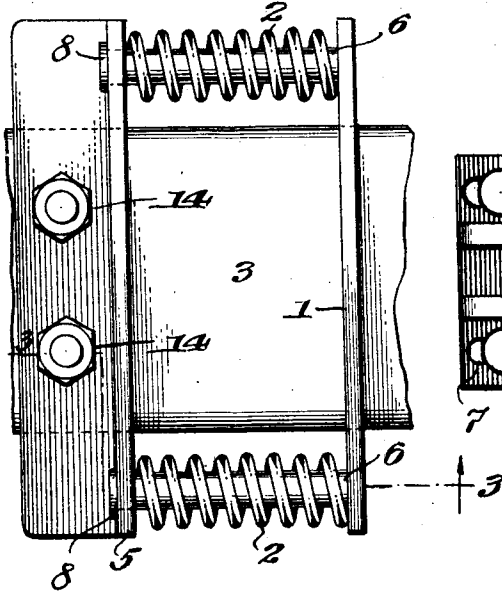


Fig. 2

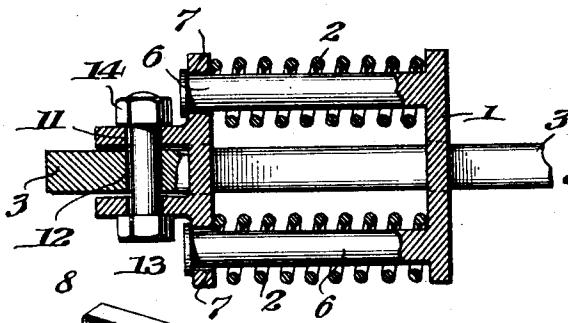


Fig. 3.

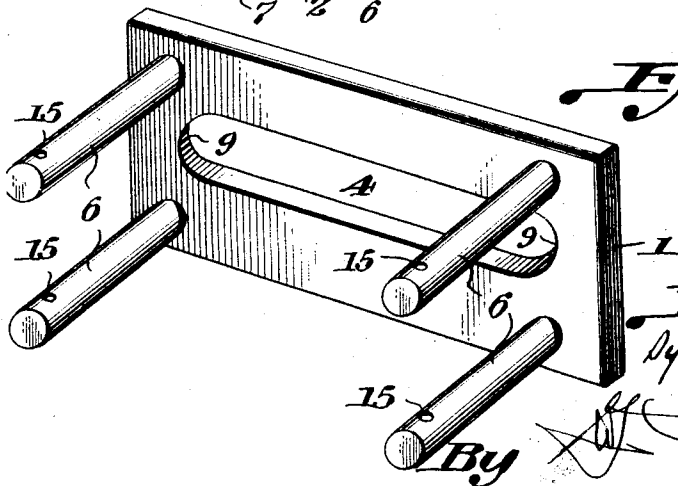
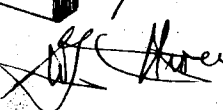


Fig. 4.

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UNITED STATES PATENT OFFICE.

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COMBINED WEAR PLATE AND CENTERING DEVICE FOR DRAFT-RIGGING KEYS FOR RAILWAY CARS.

Application filed April 14, 1926. Serial No. 102,020.

The invention relates to a combined wear plate and centering device for draft rigging keys for railway cars.

The object of the present invention is to provide for draft rigging keys of railway cars, a simple, practical and efficient device of strong, durable and inexpensive construction designed to take the place of cotter keys, bolts and similar fastening devices for securing the draft key in place and capable of yieldably maintaining the draft key in proper position in the slots of a draw bar and draft yoke and of eliminating the frequent displacements necessary where cotter pins and bolts are employed and occasioned by the wear and shearing of such fastening devices through the backward, forward and lateral movements of the draw bar and draft yoke.

A further object of the invention is to provide a combined wear plate and centering device of this character adapted for use on locomotives and various kinds of railway cars and capable of also being effectively employed on various kinds of draft rigging and of preventing the wrecks and other damage which often results from the wearing or shearing off of a cotter key or bolt and the separation of the draw bar from the draft yoke due to the displacement of the draft key after the cotter key or bolt has become broken.

With these other objects in view, the invention consists in the construction and novel combination and arrangement of parts hereinafter fully described, illustrated in the accompanying drawings and pointed out in the claims hereto appended, it being understood that various changes in the form, proportion and minor details of construction, within the scope of the claims, may be resorted to without departing from the spirit or sacrificing any of the advantages of the invention.

In the drawings:

Figure 1 is a plan view of a combined wear plate and centering device constructed in accordance with this invention and shown applied to a draft rigging key.

Fig. 2 is a side view of the same.

Fig. 3 is a sectional view on the line 3—3 of Fig. 1.

Fig. 4 is a perspective view of the yieldably mounted plate which bears against the draft rigging.

In the accompanying drawing in which is

illustrated the preferred embodiment of the invention, the combined wear plate and centering device comprises in its construction, an inner wear plate 1 which is cushioned by coiled springs 2 and which is adapted to bear against the draft rigging for maintaining a draft key 3 yieldably in proper position. The draft key which is of the ordinary construction is employed for connecting the draw bar or shank of a car coupling of a locomotive or railway car with the draft rigging which may be of any desired type and which may have the draw bar keyed to a draft yoke or to draft sills. As the combined wear plate and centering device is adapted for use on all types of draft rigging where keys of this character are employed, illustration of any particular construction of draft rigging and draw bar is deemed unnecessary. The wear plate 1 which is preferably oblong as shown is provided with a central horizontal slot 4 through which passes the key 3 and which is of sufficient length to permit the necessary relative movement between the key and the wear plate incident to the backward, forward and lateral movement of the draft rigging and the draw bar.

The wear plate 1 is connected with an attaching plate 5 by horizontal rods or pins 6 rigid with the wear plate 1 and slidable in guiding openings 7 in the attaching plate 5. The rods or pins 6 are preferably cast integral with the attaching plate but they may be connected with the same in any other desired manner and they are headed at their outer ends at 8 after being passed through the openings 7 in the attaching plate 5. The pins 6 are preferably arranged in pairs at the ends of the plates and the coiled springs 2 are disposed on the pins and are interposed between the plates as clearly shown in Fig. 3 of the drawing. The pins are adapted to slide in the oblong openings 7 to permit the necessary relative inward and outward movement of the wear plate 1 with respect to the attaching plate 5. The attaching plate 5 is provided with a horizontal slot 9 through which passes the key and which is located between parallel horizontal flanges 10. The horizontal flanges 10 which project from the outer face of the attaching plate 5 are arranged at the upper and lower walls of the slot 9 in flush relation with the said walls and they are provided with perforations 11 which register with perforations 12 in the key for the reception of

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bolts 13. The bolts 13 are provided with nuts 14 which may be located on the bolts in any desired manner and any other suitable fastening devices may be employed for securing the flanges of the attaching plate to the key. The flanges present flat faces to the upper and lower faces of the key and the device operates to cushion the key and maintain the same always in proper position in the slots of the draft rigging and the coupler shank or draw bar and the yieldable connection between the wear plate and the attaching plate not only operates to maintain the key always in a proper central position, but will also prevent any liability of the bolts 13 or other fastening devices from being sheared off and the key released through the backward, forward and lateral movements of the draw bar or coupler shank and the draft rigging. Also the wrecks and other accidents incident to the displacement of a draft rigging key will be avoided and frequent replacements of the fastening devices for securing the key in place will be obviated. The pair of bolts 13 is preferably employed for securing the flanges of the attaching plate to the key but one or more may be employed as will be readily understood. Instead of heading the outer ends of the pins 6 they may as shown in Fig. 4 be provided with holes 15 to receive cotter pins or equivalent fastening device.

What I claim is:

1. In combination with a draft key, a combined wear plate and centering device comprising an inner vertical plate provided with a horizontal slot through which passes the key and which is adapted to bear against draft rigging, an outer attaching plate having a horizontal draft key receiving slot and provided with openings and having means for securing it to the key, pins rigid with the inner plate and slidable through the openings in the attaching plate and provided at their outer ends with heads, and coiled springs disposed on the pins and interposed between the said plates.

2. A combined wear plate and centering device for draft keys comprising an inner plate provided with a horizontal slot receiving a

draft key, an attaching plate also provided with a horizontal key receiving slot and provided with openings located above and below the slot and arranged in pairs at the ends thereof, horizontal flanges formed integral with and extending from the attaching plate and provided with perforations, fastening devices arranged in the perforations of the flanges for securing the attaching plate to the said key, horizontal pins rigid with the inner plate and arranged in pairs at the ends thereof and slidable through the openings in the attaching plate and provided at their outer ends with stops for retaining them in the said openings, and coiled springs disposed on the pins and interposed between the inner and outer plates for cushioning the device to yieldably maintain the draft key in proper position.

3. In combination with a draft key, of a combined wear plate and centering device comprising an inner plate provided with a slot through which passes the key which is adapted to bear against draft rigging, an attaching plate having a draft key receiving slot and provided with openings and having means for securing it to the key, pins extending from the main plate and slidable through the openings in the attaching plate, and coiled springs disposed on the pins and interposed between the said plates.

4. A combined wear plate and centering device for draft keys comprising an inner plate provided with a slot to receive a draft key, an attaching plate provided with a key receiving slot and having openings located above and below the slot and arranged in pairs at the ends thereof, fastening devices for securing the attaching plate to the key, pins extending from the inner plate and arranged in pairs at the ends thereof and slidable through the openings in the attaching plate, and coiled springs disposed on the pins and interposed between the plates for cushioning the device to yieldably maintain the draft key in proper position.

In testimony whereof I have hereunto set my hand.

SYLVESTER L. JOINER.