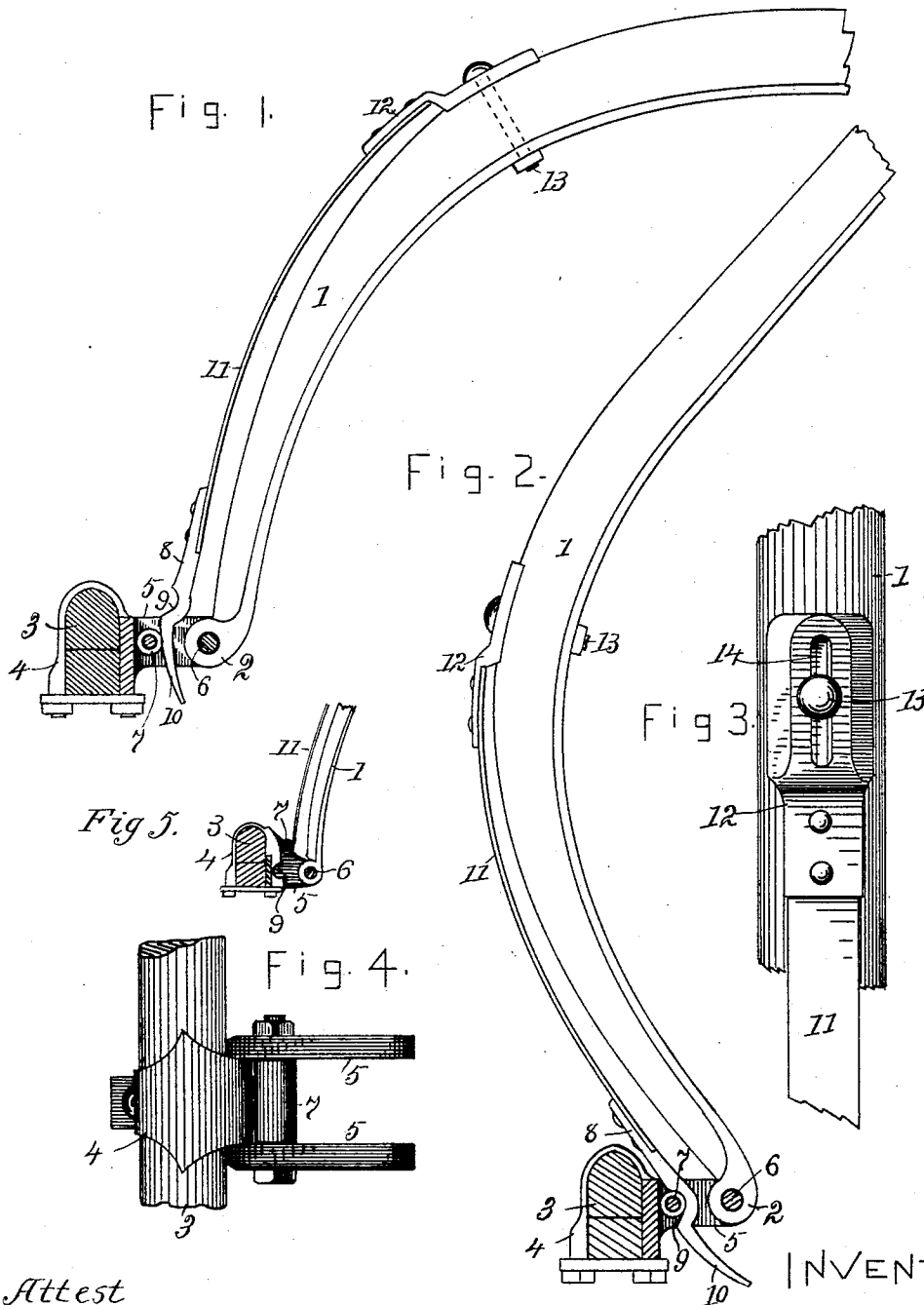


(No Model.)

H. H. WISE.
COMBINED SHAFT SUPPORT AND ANTIRATTLE.

No. 580,028.

Patented Apr. 6, 1897.



Attest
Ana C. Graham.
Vera L. Graham.

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UNITED STATES PATENT OFFICE.

HIRAM H. WISE, OF DECATUR, ILLINOIS.

COMBINED SHAFT-SUPPORT AND ANTIRATTLER.

SPECIFICATION forming part of Letters Patent No. 580,028, dated April 6, 1897.

Application filed December 12, 1896. Serial No. 615,511. (No model.)

To all whom it may concern:

Be it known that I, HIRAM H. WISE, of Decatur, in the county of Macon and State of Illinois, have invented certain new and useful
5 Improvements in a Combined Shaft-Support and Antirattler, of which the following is a specification.

This invention is designed to provide a cheap, well-appearing, and effective shaft-support that will not strain the fifth-wheel and that will prevent rattling of the shaft-coupling. It is exemplified in the structure hereinafter described and it is defined in the appended claims.

15 In the drawings forming part of this specification, Figure 1 is a side view of a shaft-coupling embodying my invention, a lug of the clip being broken away to expose details of construction and the shaft being shown in
20 the position it occupies while in use. Fig. 2 is a similar representation showing the shaft raised and held in a raised position by the support. Fig. 3 is a plan of a slotted plate that is used to connect the spring of the sup-
25 porter with the shaft. Fig. 4 is a plan of the clip, which forms an element of my invention, the shaft being detached from the clip. Fig. 5 is a reduced side view with one lug of the clip broken away, such view illustrating a
30 possible modification of the invention.

To construct my device, the axle-clip, which is shown at 4 in the accompanying drawings, is provided with lugs, as 5, somewhat longer than usual, and a roller, as 7, is journaled
35 between the lugs, close to the clip, on a bolt or pin that traverses the lugs in a direction parallel with the axle and with the bolt 6 of the eye 2 of the shaft. The shaft or thill 1 has its eye 2 pivoted between the ends of lugs 5
40 on bolt 6 in the customary manner, except that the eye is slightly farther than usual from the axle. A plate, as 12, preferably of cast metal, is slotted longitudinally, as shown at 14 in Fig. 3, and is secured to the shaft by
45 means of a bolt 13, that extends through the slot. A spring 11 is fastened rigidly to plate 12 by means of rivets, for instance, and it extends downward in the rear of the curved end of the shaft nearly to the clip on the axle.
50 To the lower end of the spring is fastened a plate 8, which is preferably made of cast

metal. The plate has in its rear surface an indentation or recess, as 9, that is adapted to receive the roller 7 when the shaft is raised, and it also has a curved surface, as 10, below
55 the indentation that approximates an arc of a circle with its convex surface presented rearward.

The spring exerts continuous pressure rearward on plate 8, thereby holding the plate
60 forcibly, but yieldingly, against the roller, and when the shaft is in the position it occupies when in use the pressure of the spring is reacted on the eye of the shaft in a manner to prevent rattling of the joint of the coup-
65 ling. When the shaft is raised to the position it preferably occupies when not in use, the roller engages the indentation in the plate 8, and the inclination of the lower surface of the indentation is such that the action of the
70 spring and the passive resistance of the incline hold the shaft elevated, but not unyieldingly so.

When it is desired to lower the shaft or pair of shafts, as the actual operation is, the shafts
75 are given a downward pull sufficient to overcome the resistance of the spring and the incline, after which no further exertion is needed and no tendency to turn the axle and strain the fifth-wheel is developed.
80

The plate 12 may be adjusted on the shaft in a manner to bring the roller into engagement with the indentation at the time that the shaft is elevated to the desired height, the slot and bolt making obvious provision
85 for that operation.

The cast-metal plates are specified as preferred elements in the construction of my device, but it will be seen that it is not impos-
90 sible that they, either or both, might be formed integral with the spring, and they are designated as plates in the claims merely to express their operative characteristics. So, also, a rigid bearing may somewhat imper-
95 fectly perform the function of a roller. In addition to this it is evident that the roller and the indented plate may be transposed, as suggested in Fig. 5, without altering the principle of or interfering with the operation
100 of the device, as described.

The device is simple and cheap and its principal lines harmonize with the lines of the

shaft. Its working parts—*i. e.*, the roller and the indented plate—are nearly or quite hidden between the lugs of the clip.

What I claim as new, and desire to secure by Letters Patent, is—

1. In a combined shaft-support and anti-rattler, the combination of a clip attached to the axle and having lugs separate one from the other, a shaft pivotally swung between the ends of the lugs, a roller between the lugs in the rear of the shaft-eye, a spring fastened at its upper end to the shaft and extended downward along the rear surface of the curve thereof, and a plate on the lower end of the spring extending between the roller and the eye of the shaft and having an indentation in its rear surface adapted to engage the roller, substantially as set forth.

2. In a combined shaft-support and anti-rattler, the combination of a clip having elongated lugs, a shaft hinged between the ends of the lugs, a spring fastened at its upper end to the shaft and extended between the lugs in the rear of the shaft, a rounded catch member fastened between the lugs of the clip in the rear of the spring, and a catch member on the lower end of the spring adapted to engage the under surface of the catch member of the clip, when the shafts are raised, substantially as set forth.

In testimony whereof I sign my name in the presence of two subscribing witnesses.

HIRAM H. WISE.

Attest:

MILTON JOHNSON,
LEVI TOWL.