D. A. JOHNSON.

Whiffletrees.

No. 140,275. Patented June 24, 1873.

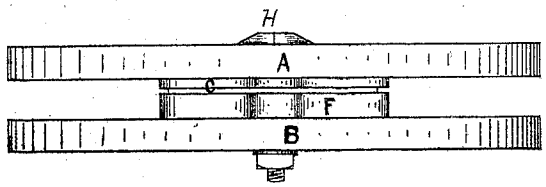

Fig. 1.

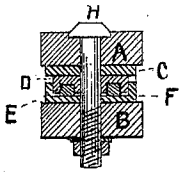

Fig. 2.

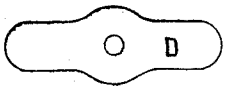

Fig. 3.

Fig. 4.

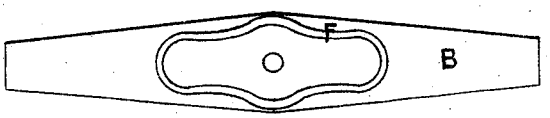

Fig. 5.

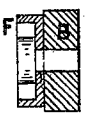

Fig. 6.

WITNESSES.

Frankl. Parker
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UNITED STATES PATENT OFFICE.

DANIEL A. JOHNSON, OF BOSTON, MASSACHUSETTS.

IMPROVEMENT IN WHIFFLETREES.

Specification forming part of Letters Patent No. **140,276**, dated June 24, 1873; application filed February 20, 1873.

To all whom it may concern:

Be it known that I, DANIEL A. JOHNSON, of Boston, in the county of Suffolk and State of Massachusetts, have invented certain new and useful Improvements in Whiffletree-Connections, of which the following is a specification:

The nature of my invention consists in a new device for attaching whiffletrees to the cross-bar of the thills, the object being to prevent rattling. The means by which this is accomplished is to insert an elastic piece within a metallic casing of peculiar device, by which I obtain all the advantages of the elasticity of the material, and protect the same from wear.

Figure 1 is an elevation, showing the whiffletree and cross-bar. Fig. 2 is across-section of the same. Figs. 3 and 4 are a plan and section of a metallic casing to hold the elastic material. Figs. 5 and 6 are a plan and section of the cross-bar and the fixed casing.

Let B represent the cross-bar of the thills to which the whiffletree is to be attached. Affixed to this cross-bar is a metallic bed-piece or casing, F, formed as shown in Figs. 1, 5, and 6. Within this casing F a similar casing, D, Figs. 2, 3, and 4 is inserted, as shown in Fig. 2. The casing D is movable, and incloses between itself and the fixed casing F the elastic material E, Figs. 2 and 4. C, Figs. 1 and 2, represents a bearing or friction plate attached to the lower side of the whiffletree A, and resting upon the upper side of the casing D. H represents a bolt, which serves to connect the whiffletree to the cross-bar in the usual manner.

By this arrangement the elastic material is completely protected from dust and from wear, and the wearing-surfaces are metallic, hence I obtain the advantages of an elastic and noiseless bearing without sacrificing durability.

I claim as my invention—

1. In combination with the whiffletree and cross-bar the metallic casings F and D, the casing or friction piece D fitting into the lower case F, substantially as described, and for the purpose set forth.

2. In combination with the casings D and F the elastic material E, substantially as described, and for the purpose set forth.

DANIEL A. JOHNSON.

Witnesses:
FRANK G. PARKER,
JOHN J. HALEY.