H. E. WOOLERY.

ENGINE SUBBASE.

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Patented Aug. 15, 1916.

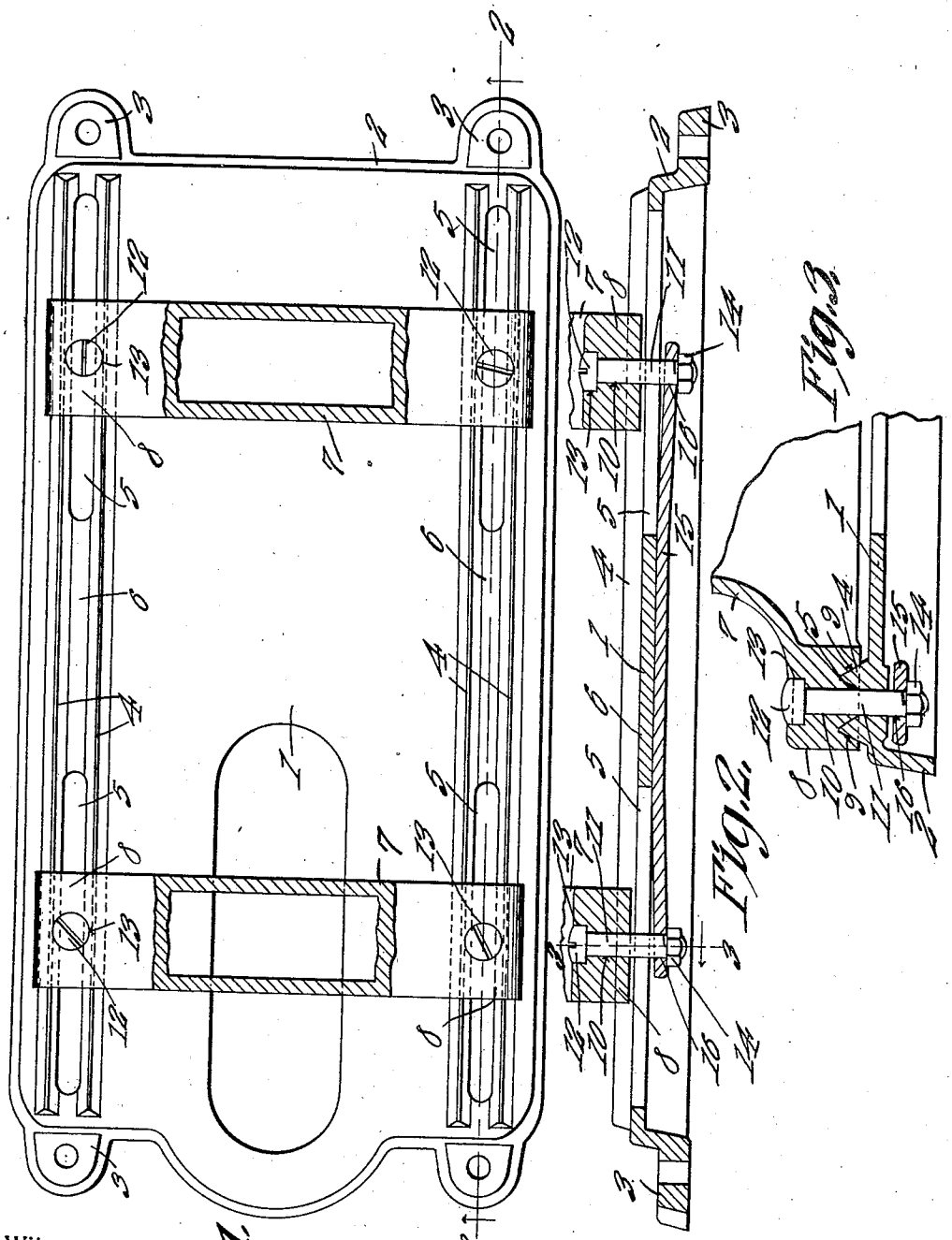


Fig. 1.

Fig. 2.

Fig. 3.

Witnesses

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ENGINE-SUBBASE.

1,194,915. Specification of Letters Patent. Patented Aug. 15, 1916.

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To all whom it may concern:

Be it known that I, HORACE E. WOOLERY, a citizen of the United States, residing at Minneapolis, in the county of Hennepin and State of Minnesota, have invented a new and useful Engine-Subbase, of which the following is a specification.

The present invention is a sub-base or bed for supporting an engine or other machine, and embodies a novel and improved structure whereby the engine or other object supported is capable of adjustment whereby the belt connected thereto can be tightened.

Considered broadly, the invention includes a base plate or bed upon which the engine pedestals or supports are mounted for longitudinal adjustment, there being spring means for holding the pedestals upon the base plate to take up wear, and to normally hold the pedestals against movement but to enable the pedestals to be slid when sufficient force is given to bear thereagainst, the structure comprising a novel assemblage of the component parts whereby the device is comparatively simple, substantial and inexpensive in construction, as well as being thoroughly practical and efficient in use.

With the foregoing and other objects in view which will appear as the description proceeds, the invention resides in the combination and arrangement of parts and in the details of construction hereinafter described and claimed, it being understood that changes in the precise embodiment of the invention herein disclosed, can be made within the scope of what is claimed without departing from the spirit of the invention.

The invention is illustrated in the accompanying drawing, wherein:—

Figure 1 is a plan view of the engine subbase, the upper portions of the pedestals being broken off. Fig. 2 is a longitudinal section taken on the line 2—2 of Fig. 1. Fig. 3 is an enlarged sectional detail taken on the line 3—3 of Fig. 2.

In carrying out the invention, there is employed a base plate or bed 1, preferably in the form of a metal casting, and having a downturned marginal flange or rim 2 for spacing it above the floor or underlying surface. This flange 2 is provided with apertured ears or feet 3, preferably at the ends of the base plate, which is rectangular, to enable bolts or other securing elements to be engaged through the ears or lugs 3 for fastening the base upon the floor. This base plate 1 is provided adjacent each side edge with a pair of upstanding longitudinal ribs 4 of triangular cross section, the ribs of each pair being parallel and arranged close adjacent to one another, while the ribs of the two pairs are spaced apart and parallel. The plate 1 is provided between the ribs of each pair with a pair of longitudinal slots 5 adjacent the ends of the plate, the slots being parallel with the ribs, and the slots of each pair being spaced apart to provide an unslotted portion 6 of the plate 1 therebetween.

The pedestals or supports 7 of the engine (not shown) are only illustrated fragmentally, since said pedestals are common and well known. The pedestals 7 which support the engine or other machine in the well known manner are disposed transversely up the base plate 1 and provided at the opposite sides with feet or lugs 8 disposed above and resting upon the respective pairs of ribs 4, the feet 8 having lower V-shaped grooves 9 receiving the ribs. Each foot 8 has a pair of the grooves 9 to match the respective ribs, and is further provided with a vertical bore or aperture 10 between the grooves 9. The ribs 4 engaging in and bearing against the walls of the grooves 9 support the pedestals 7 and their feet 8 above the upper surface of the plate 1, so that the only contacting portions between the base plate and pedestals are the surfaces of the ribs and grooves. The ribs 4 serve to guide the pedestals for true longitudinal movement upon the base plate, and the V-shaped grooves 9 of the pedestals engaging upon the ribs 4 of triangular or V-shaped cross section produces sufficient friction to resist the too easy movement of the pedestals upon the base plate.

A vertical bolt or other suitable securing element 11 is engaged through the aperture 10 of each foot 8, and the upper ends of the bolts 11 are provided with enlarged heads 12 seated in sockets or counter bores 13 with which the feet 8 are provided at the upper ends of the apertures or bores 10. The bolts 11 extend downwardly through the respective slots 5 and have nuts 14 threaded upon their lower ends below the base plate 1.

A pair of longitudinal bowed leaf springs 15 having sufficient inherent rigidity and resiliency are disposed below the base plate 1

adjacent the opposite side edges thereof, and have their ends apertured, as at 16, for the engagement of the respective bolts 11 therethrough. The springs 15 are bowed upwardly so that their intermediate portions contact with and bear against the portions 6 of the base plate, thereby tending to depress the ends of the springs 15, said ends of the springs seating upon the nuts 14 to depress the bolts 11 by spring tension. The springs 15 serve to connect the bolts 11 of the two pedestals at the opposite sides, whereby the pedestals have their lower portions connected to slide in unison, thus preventing the improper displacement of the pedestals.

The various parts may be quickly and easily assembled, and it is also obvious that the parts may be cheaply and easily manufactured. By using springs 15 of sufficient stiffness and by adjusting the nuts 14, the required spring tension may be obtained for properly holding the pedestals 7 in place, so that the pedestals will not be liable to slide accidentally, but can be slid by the application of sufficient pressure thereagainst by means of crow bars, levers or other suitable devices.

The springs 15 being disposed between the nuts 14 of the bolts 11 and the lower surface of the plate 1, will pull or draw the bolts 11 downwardly to tightly seat the feet 8 of the pedestals upon the ribs 4, whereby the frictional resistance between the ribs 4 and pedestals will be sufficient to prevent the vibration or accidental movement of the pedestals upon the base. By applying sufficient force to the pedestals, they may be slid upon the base plate, for tightening the belt of the engine or machine. The springs 15 also serve to take up wear between the pedestals and base plate. The other advantages attributed to the structure will be obvious to those skilled in the art without further comment being necessary.

Having thus described the invention, what is claimed as new is:

1. In a device of the character described, a base, a supporting member movable thereon, bolts engaged through the base and supporting member, one of the first mentioned parts having slots in which the bolts work, and spring means between the bolts and one of the first two mentioned parts for holding the supporting member normally in position upon the base.

2. In a device of the character described, a base having a slot, a supporting member above the base having a bolt working in said slot, the base and supporting member having interengaging ribs and grooves, and a spring between the bolt and base for normally holding the supporting member in position upon the base.

3. In a device of the character described, a base having a pair of upstanding ribs and a slot therebetween, a supporting member having grooves engaging said ribs and having a bolt working in said slot, and a spring between said bolt and the base.

4. In a device of the character described, a base having slots, supporting means upon the base and having bolts working in said slots, and a bowed spring having its intermediate portion bearing upwardly against the base and having its ends engaged to said bolts.

5. In a device of the character described, a base having slots, a pair of supporting members movable upon the base and having bolts working in said slots, and a bowed spring having its intermediate portion bearing upwardly against the base and having its ends engaged to said bolts.

6. In a device of the character described, a base plate having a pair of upstanding parallel ribs and slots therebetween, supporting members having grooves engaging said ribs and having bolts working in said slots, and a bowed spring having its intermediate portion bearing upwardly against the base and having its ends engaged to said bolts.

7. In a device of the character described, a base plate having opposite slots, a pair of supporting members upon the base plate having opposite bolts working in said slots, and bowed springs having their intermediate portions bearing upwardly against the base plate and having their ends engaged to the respective opposite bolts of the supporting members to connect the supporting members and normally hold them in position upon the base plate.

8. In a device of the character described, a base plate having two pairs of parallel upstanding ribs, a pair of slots between each pair of ribs, and an unslotted portion between each pair of slots, a pair of supporting members having opposite feet provided with lower grooves engaging said ribs and having bolts working in said slots, and bowed springs having their intermediate portions bearing upwardly against said unslotted portions and having their ends engaged to the respective bolts at the opposite sides.

In testimony that I claim the foregoing as my own, I have hereto affixed my signature in the presence of two witnesses.

HORACE E. WOOLERY.

Witnesses:
HIRAM A. SCUNER,
JOSEPH E. WARE.