Nov. 21, 1933. W. D. HAMERSTADT 1,935,878

PIVOTAL MOUNTING FOR PULLEY STRUCTURES

Filed Nov. 30, 1931 2 Sheets-Sheet 1

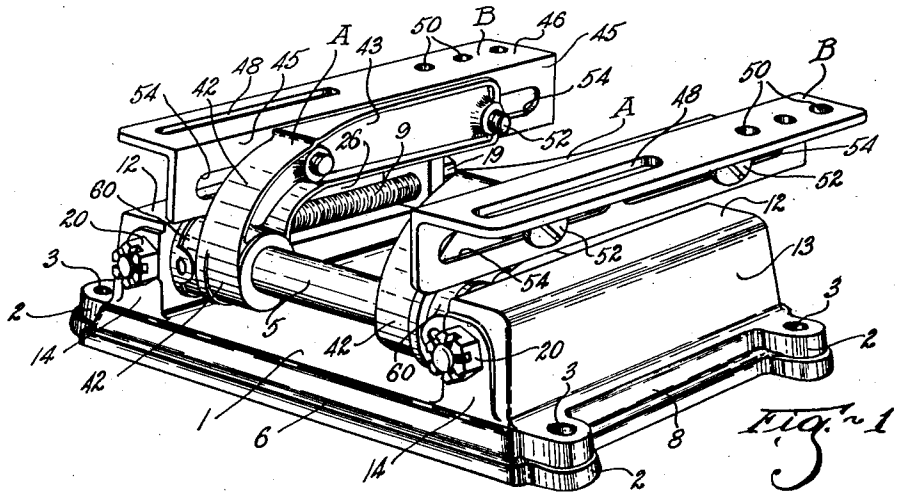


Fig. 1

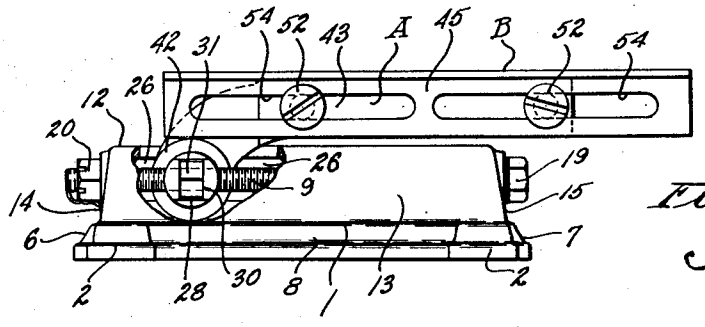


Fig. 2

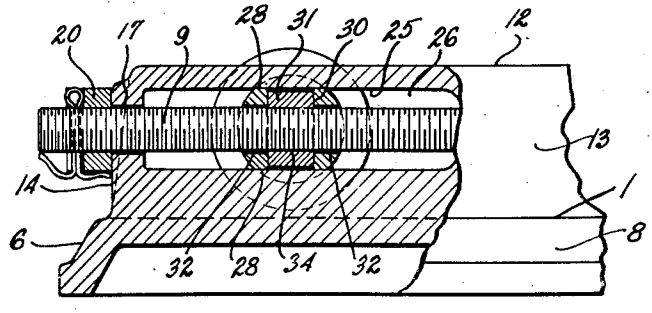


Fig. 3

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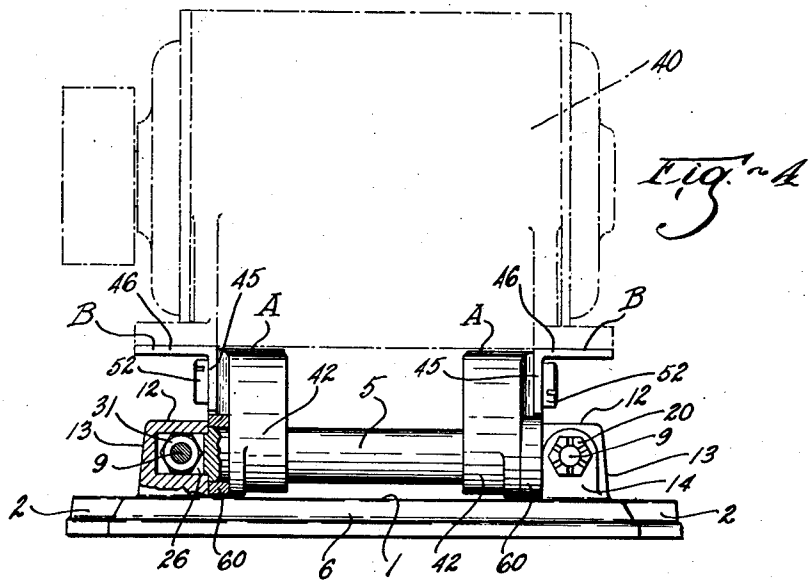


Fig. 4

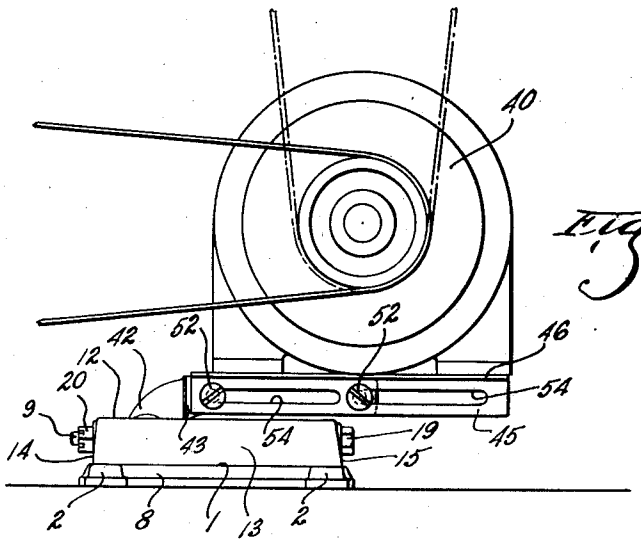


Fig. 5

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Patented Nov. 21, 1933

1,935,878

UNITED STATES PATENT OFFICE

1,935,878

PIVOTAL MOUNTING FOR PULLEY STRUCTURES

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Application November 30, 1931
Serial No. 578,006

7 Claims. (Cl. 308—11)

This invention relates to an improved pivotal mounting for pulley structures and more particularly, to a pivotal mounting for a pulley structure adapted for use, through the instrumentality of a belt, with a fixed center pulley. The present invention has especial relation, therefore, to what are termed "short center drives".

Generally speaking, the present improved pivotal mounting comprises a suitable base adapted to be rigidly secured to a floor, wall or other suitable support and provided with an adjustable pivot member on which is pivotally and slidably mounted a suitable support for a pulley structure, such as a pulley-carrying electric motor or the like.

One of the features of the present invention is the provision of improved means for adjustably carrying the pivot member on which is pivotally and slidably mounted the support for a pulley structure, said carrying means including a pair of adjusting screws for said pivot member and a pair of housings carried by said base and supporting and enclosing said adjusting screws, whereby said screws are not only concealed from view, but also are protected from dirt, etc.

Another feature of the present invention is the provision of an improved support for a pulley structure, said support comprising a pair of bracket members and a pair of supporting members, said bracket members being mounted on the pivot member of the present device for individual pivotal and slidable movement relative thereto and said supporting members being adjustably mounted on said bracket members, one on each, whereby a pulley structure secured on said supporting members may be adjusted relative to said pivot member without disturbing the securement of said pulley structure on said supporting members.

Further features of the present invention will be obvious and others thereof will be pointed out as the description of the invention proceeds.

The invention will be readily understood from the following description of one embodiment thereof, reference being had to the accompanying drawings in which

Fig. 1 is a perspective view of the present improved pivotal mounting; Fig. 2 is a side elevation thereof, a part of the base being broken away to illustrate interior construction; Fig. 3 is a view similar to Fig. 2 with a portion of the base broken away and in section to show interior construction; Fig. 4 is a rear elevation of the present improved mounting and showing in dotted lines a pulley-carrying electric motor secured thereon; and Fig. 5 is a side elevation of the present improved mounting and showing in full lines a pulley-carrying electric motor secured thereon.

As illustrated in the accompanying drawings, the present improved pivotal mounting comprises a suitable base 1, preferably in one piece and adapted to be rigidly secured to a suitable support, such as a floor, wall or the like. For the purpose of such securement, the present base, which is of generally rectangular shape in plan view, is provided at substantially each of its four corners with a laterally extending ear 2 having a bolt-receiving aperture 3.

5 indicates the pivot member of the present device, said pivot member lying above the base in a plane substantially parallel with the plane of the base top surface. The ends of said pivot member terminate adjacent the side edges 8 of the base and said pivot member is bodily adjustable from substantially the front edge 6 of said base to substantially the rear edge 7 thereof. To enable said pivot member to be so adjusted, two adjusting screws 9 are provided for adjustably carrying the ends thereof, said adjusting screws being supported by and enclosed or arranged in suitable housings with which the base is provided, said housings being here shown as of generally rectangular shape and formed integral with the base. Said base housings, and the adjusting screws 9 supported therein, lie along the base side edges 8 and extend from the base front edge 6 to the base rear edge 7. Each of said housings comprises a top wall 12, an outer side wall 13, a front wall 14 and a rear wall 15, the front and rear walls of each housing being provided with aligned openings 17 through which an adjusting screw 9 extends. As clearly shown in Fig. 2, said adjusting screws project beyond the front and rear walls of said housings, the projecting rear ends of said screws being provided with manipulating heads 19 and the projecting front ends of said screws carrying suitable lock nuts 20 for maintaining said screws in proper adjusted position.

As clearly shown in Fig. 3, the two housings of the base have no inner side walls so that full length openings 25 are provided along the inner sides of said housings and through said openings and into the cavities 26 of the housings extend the two end portions of the pivot member 5, which end portions, as before mentioned, are carried by the adjusting screws 9. In order to prevent rotary movement of the pivot member 5, it is made of such size in cross section that its end por-

tions must be flattened off at both top and bottom, as at 28, Fig. 3, in order to enable them to enter the housing openings 25 and the housing cavities 26.

In the present embodiment of the invention, the end portions of the pivot member 5 are adjustably mounted upon the adjusting screws 9 by providing each of said end portions with a vertically disposed, axially positioned slot or cavity 30, of sufficient size to receive, when presented sideways, a suitable nut 31. The two nuts here shown are of hexagonal shape and are, of course, of sufficient size that their rotation is prevented by the engagement therewith of the top walls 12 of the base housings, as clearly shown in Fig. 4. Each pivot member end portion is also provided on each side of its cavity or slot 30 with a transversely disposed opening 32, said openings being in alignment with each other and with the threaded aperture 34 of the nut 31 when said nut is in proper position within the slot 30. There is thus provided in each pivot member end portion a transversely extending through passageway made up of the two end openings 32 and the intermediate aperture 34 of the nut 31. As best shown in Fig. 3, the passageway openings 32 are unthreaded and are slightly larger in diameter than that of the nut aperture 34, with the result that said pivot member end portions can be moved forwardly and rearwardly through the elongated openings 25 and elongated cavities 26 of the base housings without any binding of said end portions, as will be readily understood.

Pivotally and slidably mounted on the pivot member 5, between the two housings of the base, is the support for a pulley structure, such as the pulley carrying electric motor 40 shown more or less conventionally in dotted lines, Fig. 4, and in full lines, Fig. 5. The pulley structure support here shown comprises a pair of bracket members A and a pair of supporting members B, said bracket members having pivotal end portions 42 and supporting end portions 43. The pivotal end portions of said bracket members are mounted on the pivot member 5 of the present device for individual pivotal and slidable movement relative thereto, and the supporting end portions 43 of said bracket members have adjustably secured to the outer surfaces thereof the connecting portions 45 of the supporting members B. Said supporting members, being in the shape of angle irons, are also each provided with an outwardly extending supporting portion 46 to which the electric motor 40 or other suitable pulley structure is secured, said supporting portions 46, for the purpose of such securement, being each provided in one end portion with a bolt-receiving slot 48 and in its other end portion with a series of longitudinally disposed bolt-receiving apertures 50, said bolt-receiving slots being located in those end portions nearer the pivot member 5.

The adjustable securement of the connecting portions 45 of the two supporting members B to the supporting end portions 43 of the two bracket members A is effected by pin and slot connections, said bracket supporting end portions 43 being provided with outwardly extending cap screws 52 extending through suitable longitudinally disposed slots 54 in the connecting portions 45 of the supporting members B. This construction enables the electric motor 40 to be bolted or otherwise suitably secured on the supporting portions 46 of the supporting members B and thereafter adjusted toward and from the pivot member 5, to obtain proper tension on the motor belt, without disturbing or effecting said securement, as will be readily understood.

To prevent sliding movement of the bracket members A along the pivot member 5 after the electric motor 40 has been mounted on the supporting members B, suitable collars 60 are provided on said pivot member, on the outer sides of the pivotal end portions 42 of the bracket members A, said collars being held in proper position on said pivot member by suitable set screws or the like.

While I have here shown and described a preferred embodiment of my invention, it is to be understood that many changes can be made therein without departing from either the scope or the spirit of my invention.

What I claim is:

1. A pivotal mounting for a pulley structure adapted for use, through the instrumentality of a belt, with a pulley having a fixed center, said mounting comprising a generally flat base adapted to be rigidly connected to a suitable support, a pair of spaced, generally parallel adjusting screws carried by said base in generally parallel relation thereto, pivot means extending transversely of said adjusting screws and having end portions supported by said base and provided with unthreaded openings through which said screws extend, each of the end portions of said pivot means having a nut associated therewith, said nuts being threaded on said adjusting screws, one on each, means carried by said base for preventing rotary movement of said nuts, whereby adjustment of said screws effects adjustment of said pivot means, and pulley structure supporting means pivotally mounted on said pivot means.

2. A pivotal mounting for a pulley structure adapted for use, through the instrumentality of a belt, with a pulley having a fixed center, said mounting comprising a generally flat base adapted to be rigidly connected to a suitable support, a pair of spaced, generally parallel adjusting screws carried by said base in generally parallel relation thereto, pivot means extending transversely of said adjusting screws and having end portions supported by said base and provided with unthreaded openings through which said screws extend, each of the end portions of said pivot means having a nut associated therewith, said nuts being threaded on said adjusting screws, one on each, a pair of housings carried by said base for enclosing said adjusting screws and parts of the end portions of said pivot means, portions of said housings engaging said nuts and preventing rotary movement thereof, whereby adjustment of said screws effects adjustment of said pivot means, and pulley structure supporting means pivotally mounted on said pivot means between said housings.

3. A pivotal mounting for a pulley structure adapted for use, through the instrumentality of a belt, with a pulley having a fixed center, said mounting comprising a base adapted to be rigidly connected to a suitable support, pivot means carried by said base in generally parallel relation thereto, and pulley structure supporting means having a bracket member and a supporting member, said bracket member being pivotally mounted on said pivot means and said supporting member being adjustably mounted on said bracket member, said supporting member being adapted to have a pulley structure adjustably mounted thereon.

4. A pivotal mounting for a pulley structure

adapted for use, through the instrumentality of a belt, with a pulley having a fixed center, said mounting comprising a base adapted to be rigidly connected to a suitable support, pivot means adjustably carried by said base in generally parallel relation thereto, and pulley structure supporting means having a bracket member and a supporting member, said bracket member being pivotally and slidably mounted on said pivot means and said supporting member being adjustably mounted on said bracket member by a screw and slot type adjustable mounting, said supporting member being adapted to have a pulley structure adjustably mounted thereon.

5. A pivotal mounting for a pulley structure adapted for use, through the instrumentality of a belt, with a pulley having a fixed center, said mounting comprising a base adapted to be rigidly connected to a suitable support, pivot means adjustably carried by said base in generally parallel relation thereto, and pulley structure supporting means consisting of a pair of bracket members and a pair of pulley structure supporting members, said bracket members being mounted on said pivot means for individual pivotal and slidable movement relative thereto and said supporting members being adjustably mounted on said bracket members, one on each, said supporting members being adapted to have a pulley structure adjustably mounted thereon.

6. A pivotal mounting for a pulley structure adapted for use, through the instrumentality of a belt, with a pulley having a fixed center, said mounting comprising a base adapted to be rigidly connected to a suitable support, pivot means adjustably carried by said base in generally parallel relation thereto, and pulley structure supporting means consisting of a pair of bracket members and a pair of pulley structure supporting members, said bracket members being pivotally mounted on said pivot means and said supporting members each having a connecting portion and a supporting portion, the supporting portions of said supporting members being adapted to have a pulley structure adjustably mounted thereon and extending substantially at right angles to the connecting portions thereof, said connecting portions being adjustably mounted on said bracket members.

7. A pivotal mounting for a pulley structure adapted for use, through the instrumentality of a belt, with a pulley having a fixed center, said mounting comprising a base adapted to be rigidly connected to a suitable support, pivot means adjustably carried by said base in generally parallel relation thereto, and pulley structure supporting means consisting of a pair of bracket members and a pair of pulley structure supporting members, each of said bracket members having one of its end portions pivotally mounted on said pivot means and each of said supporting members having a connecting portion and a supporting portion, the supporting portions of said supporting members being adapted to have a pulley structure adjustably mounted thereon and the connecting portions of said supporting members being adjustably mounted on the free end portions of said bracket members, one on each.

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