Dec. 10, 1963 L. S. DOHERTY 3,113,753

ADJUSTABLE MOTOR SUPPORTS

Filed March 13, 1959

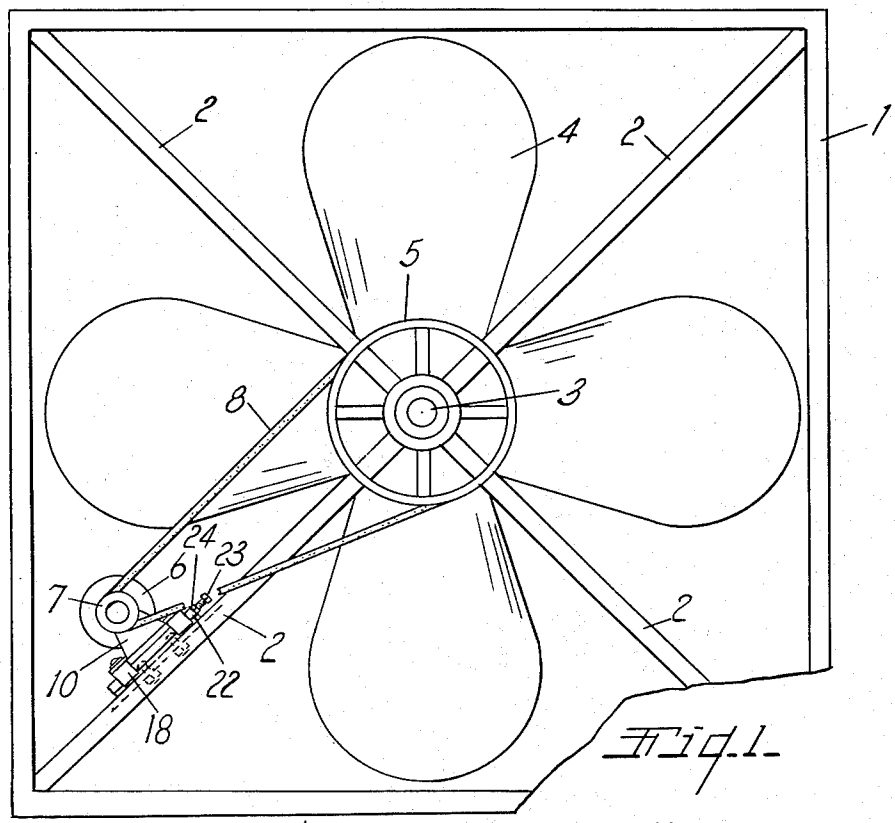


Fig. 1

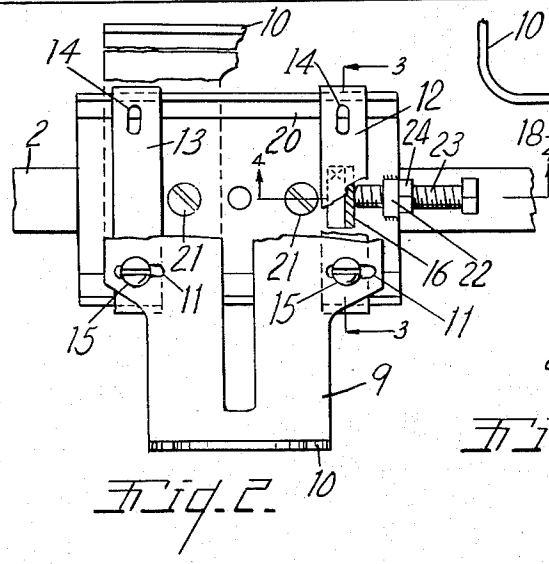


Fig. 2

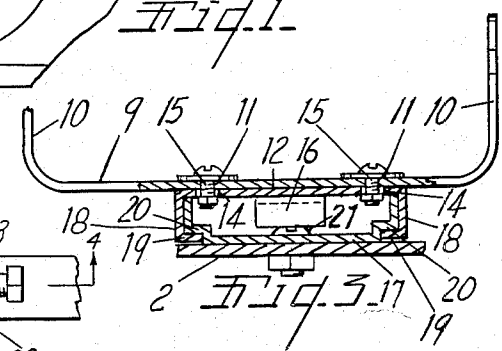


Fig. 3

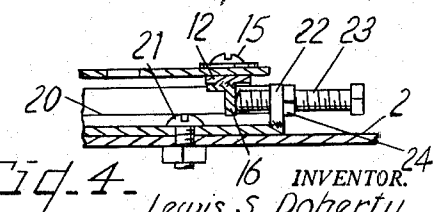


Fig. 4

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ADJUSTABLE MOTOR SUPPORTS

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1 Claim. (Cl. 248—23)

This invention relates to an adjustable motor support which serves as a belt tightening or tensioning means. The main objects of this invention are:

First, to provide an adjustable motor support which is well adapted for use for tightening or properly tensioning the belt connection to a fixedly mounted driven member.

Second, to provide means for adjustably tensioning the belt connection for a motor pulley to a fan pulley or the like.

Third, to provide means for adjustably supporting a motor on a fixed frame member or support which also constitutes a support for the driven element.

Fourth, to provide an adjustable motor support which is adaptable to motor bases of widely used types.

Objects relating to details and economies of the invention will appear from the description to follow. The invention is defined and pointed out in the claim.

A preferred embodiment of the invention is illustrated in the accompanying drawing, in which:

FIG. 1 is a fragmentary elevational view of a structure embodying my invention, the frame and fan and certain other parts being conventionally illustrated.

FIG. 2 is a fragmentary plan view of the motor base member and associated parts embodying my invention.

FIG. 3 is an enlarged fragmentary view in transverse section on a line corresponding to line 3—3 of FIG. 2.

FIG. 4 is an enlarged fragmentary view on a line corresponding to line 4—4 of FIG. 2.

In the accompanying drawing the frame designated generally by the numeral **1** is rectangular and is provided with the diagonal support members **2**, these parts being conventionally illustrated, but it should be understood that they are greatly varied in practice, sometimes being formed of flat stock as illustrated, and sometimes of round tubular stock.

The fan bearing **3** is mounted on these frame members **2** at the juncture thereof, the fan blades being conventionally shown at **4** and the pulley **5** which is secured to the fan shaft **3**. The electric motor **6** is also conventionally illustrated and it is provided with a pulley **7** drivingly connected to the fan pulley **5** by the belt **8**. The motor base member **9** has upwardly projecting arms **10** at each end thereof. The details of mounting the motor on these arms are not illustrated as they form no part of this invention. The base member **9** is provided with laterally spaced pairs of slots **11**. The laterally spaced slide members **12** and **13** are provided with longitudinal slots **14** alignable with the slots **11** to receive the bolts **15**. The main purpose of the slots **11** and **14** in the base **9** and the slides is to permit the slides being readily attached to motor bases which may differ substantially in dimensions.

The slides **12** and **13** are duplicates with the exception that the slide **12** is provided with the abutment **16**, the purpose of which will appear as the description proceeds. These slides are of downwardly opening channel section and are designed to slidably embrace the slide way **17**, the arms **18** of the slides terminating in inturned offset engaging portions **19**. The arms of the slide way in this embodiment illustrated have offsets **20** therein receiving the way engaging members **19**, see FIG. 3. These offsets are particularly desirable to provide clearance for the members **19** when the slide way is mounted upon a flat surface support such as illustrated at **2**.

In this embodiment illustrated the slide way is secured to the support by the bolts **21**, but it will be understood that it may be secured by spot welding or otherwise in the event the supports **2** are of metal. While the supports **2** illustrated are flat faced, as stated they are frequently of round or other section, but in any case the slide way is fixedly secured to the support. The forming of both the slide way and the slides of channel section with the slides embracing the slide way as illustrated, provides a very effective lateral twist resisting connection while permitting the slidable adjustment of the motor on the slide way. The slide way is provided with the inwardly projecting lug **22** aligned with the abutment **16** to receive the adjusting screw **23** which is in thrust engagement with the abutment **16** on the slide member **12**. Desirably a lock nut **24** is provided.

With this arrangement of parts the motor may be very quickly and easily mounted on the slide way and is effectively supported thereby so that it may be adjusted relative to the shaft or axis of the pulley **5**, thereby providing means for tensioning the belt in the initial installation and to compensate for stretch and wear resulting from use and use conditions.

Among the advantages of the structure of this invention is that with the motor properly adjusted upon the motor base to align with the driven pulley all that it is necessary to do to adjust the tension of the belt is to adjust the screw **23**; the slide in effect becomes a part of the motor base. In the event it is necessary to repair the motor it may be removed from the support and replaced as occasion may require without any further adjustment.

I have illustrated and described my invention in a simple and highly practical embodiment thereof. I have not attempted to illustrate or describe other embodiments or adaptations as it is believed that this disclosure will enable those skilled in the art to embody or adapt my invention as may be desired.

Having thus described the invention, what is claimed as new and desired to secure by Letters Patent is:

An adjustable support for a motor, comprising a motor base member provided with spaced pairs of slots extending transversely thereof, laterally spaced slides disposed on the underside of said motor base member and having longitudinal slots therein registering with and disposed transversely of said slots of said motor base member, bolts disposed through said slots of said motor base member and said slides for adjustably connecting the slides and said motor base member, a slide way of upwardly facing channel section having offsets therein providing inwardly facing shoulder like ways, said slides having arms slidably embracing said slide way and having inturned offset engaging portions retainingly and slidably engaging said ways, one of said slide members having an abutment disposed between the arms thereof, the slide way being provided with a projecting lug aligned with said abutment on said slide member, and an adjusting and thrust sustaining screw threadedly engaged with said lug and in thrust engagement with said abutment on said slide member.

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