

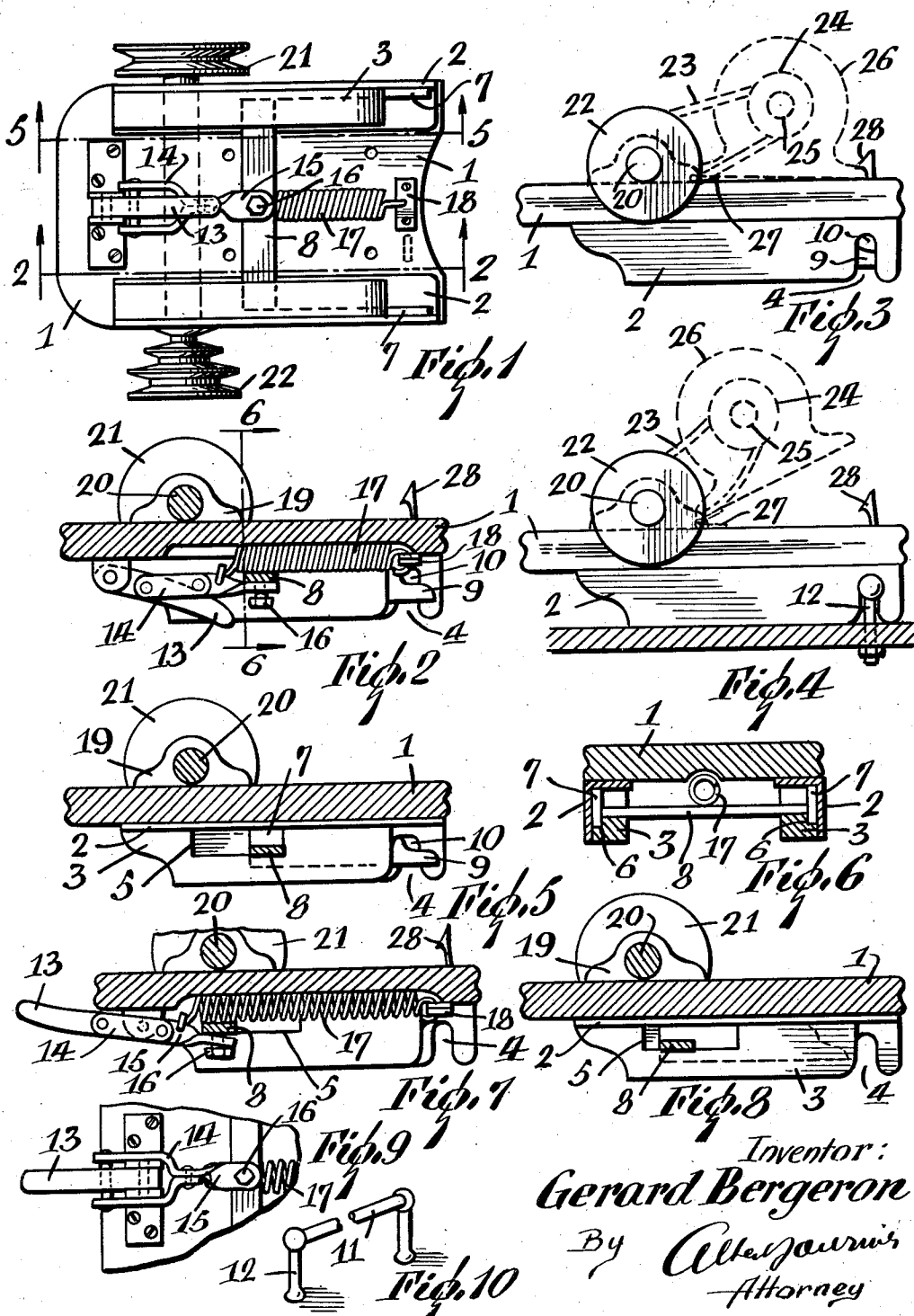
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PORTABLE MOTOR BASE

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PORTABLE MOTOR BASE

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The present invention pertains to a novel portable base for electric motors whereby a motor of any given rating may readily be moved with its base and installed at a given station.

In various manufacturing operations, motors of different ratings are required at different times at a given station. It is sometimes customary to provide all the necessary motors permanently installed at the given station, in view of the fact that considerable time is employed to remove any particular motor and replace it with another as needed.

The principal object of the invention is to provide a portable motor base that does away with the installation of a plurality of motors at any particular station. In other words, the base with a motor thereon is so easily installed or removed that the manipulation is very rapid and entirely economical.

In the accomplishment of this object the base comprises a pair of spaced frame members on which is mounted a horizontal plate which in turn carries the motor. The side members are notched from their respective lower edges to receive an anchor bar mounted on the work table or other support at the work station. Slides are mounted in the side frame members and have their ends shaped to cover the notches partially at a distance from their upper ends, thereby converting the notches to enclosed spaces of dimensions suitable for confining and locking the anchor bar. The slides are normally moved to the locking position by a coil spring. They are withdrawn from the locking position by a lever and link connection. Although the withdrawing movement places the spring under tension, the connection from the lever to the slides has an over-center movement so that it becomes locked in the open position until released.

The invention is fully disclosed by way of example in the following description and in the accompanying drawings in which:

Figure 1 is a plan view of the device;

Figure 2 is a section on the line 2—2 of Figure 1;

Figure 3 is a side elevation;

Figure 4 is a similar view showing a different adjustment of the device;

Figure 5 is a section on the line 5—5 of Figure 1;

Figure 6 is a section on the line 6—6 of Figure 2;

Figure 7 is a section similar to Figure 2 but showing a different position of the parts;

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Figure 8 is a section similar to Figure 5 and showing a different adjustment;

Figure 9 is a detail of Figure 1 in a different adjustment of parts, and

Figure 10 is a detail perspective view of the anchoring bar.

Reference to these views will now be made by use of like characters which are employed to designate corresponding parts throughout.

The device includes, and is built upon, a plane member or plate 1 of rectangular form and consisting preferably of wood in order to reduce the transmission of sound, or of other suitable material. The longitudinal edges of the member 1 rest upon a pair of hollow members 2 in the form of angle irons fitted with blocks 3 to form an enclosure or channel in each angle iron. The angle irons, near one end, are notched at 4, and the members 3 terminate at the notches 4 in order not to obstruct them. The blocks 3 are mortised transversely at 5 at a distance from the notches 4 and are further rabbetted lengthwise at 6 in the respective surfaces directly adjacent to the vertical sides of the angle irons. The grooves 6 receive plates or strips 7 engaging the vertical sides of the angle irons. The members 7 are joined by a tie bar 8 extending through the openings 5 of the members 3, whereby the assembly 7, 8 is slidable lengthwise of the members 2, 3.

An end of each plate 7 is reduced and pointed at 9 in order to traverse the notches 4 without completely obstructing them, as shown in Figure 3, and thereby form clear openings 10. The openings 10 receive a transverse anchor bar or rod 11 shown in perspective in Figure 10. The member 11 is held in the openings 10 at a corresponding distance above the work bench or floor shown in Figure 4, by means of end posts 12 secured to the floor.

On the plane member 1, at the end opposite the notches 4, is pivotally and centrally mounted a lever 13 to which is attached a stirrup 14 formed with a stem 15 which is loosely attached to the cross bar 8 by a bolt 16. The shaft 15 has one end of a longitudinal coil spring 17 anchored thereto, the other end of the spring being attached to an anchor plate 18 secured to the member 1 between the notches 4.

On the member 1 is mounted a pair of pillow blocks 19 at the longitudinal edges and approximately over the lever 13 in the position shown in Figures 1 and 2. The blocks 19 support a transverse shaft having a single pulley 21 at one end and a multiple-grooved pulley 22 at the other

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end. The pulley 21 is engaged by an endless belt 23 which passes around a pulley 24 secured on the shaft 25 of an electric motor 26. The motor is attached to the member 1 at one edge by hinges 27, while the opposite edge is releasably engaged by a spring latch 28.

In the use of the invention, an anchor bar 11 is provided at each station where a motor is to be used. The stations are located with proper reference to the mechanism which is to be driven by a belt mounted in the selected groove of the pulley 22. The shaft 20 is driven from the pulley 21 which is connected to the motor pulley 24 by the belt 23.

In order to fasten the device to a particular bar 11, the notches 4 are fitted over the bar, and the lever 13 is moved from the position shown in Figure 7 to the position shown in Figure 2, whereby the stirrup advances the tie bar 8 and the side plates 7. The pointed free ends 9 of the latter traverse the notches 4 and form enclosures 10 which confine the bar 11 and lock the motor base to the bar.

In order to release the base from the bar 11, the lever 13 is turned counterclockwise to the position shown in Figure 7, thereby withdrawing the ends 9 from the notches 4, so that the base can be lifted. The release position shown in Figure 7 is maintained, notwithstanding the tension of the spring 17, by an over-center movement or toggle action at the point where the spring is joined to the stem 15.

A new belt 23 is applied to the pulleys 21 and 24, when necessary, by releasing the latch finger 28 and tilting the motor on its hinge 27, as shown in Figure 4.

It is contemplated that motors of various sizes be provided on bases of the character described. The proper motor for any station at any given time is thus readily installed by bringing it with its base to the station and attaching the base to the anchor bar 11 in the manner described.

Although a specific embodiment of the invention has been illustrated and described, it will be understood that various alterations in the details of construction may be made without departing from the scope of the invention as indicated by the appended claims.

What I claim as my invention is:

1. A portable base for a motor comprising a pair of spaced frame members, a plate mounted thereon, said frame members being notched from their lower edges to receive an anchor bar, a pair of slides in said frame members having ends adapted to cover said notches partially at a distance from their upper ends, thereby leaving enclosed openings for confining the anchor bar, and means for sliding said slides.

2. A portable base for a motor comprising a pair of spaced frame members, a plate mounted thereon, said frame members being notched from their lower edges to receive an anchor bar, a pair of slides in said frame members having ends adapted to cover said notches partially at a dis-

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tance from their upper ends, thereby leaving enclosed openings for confining the anchor bar, a lever pivoted to the bottom of said plate, a tie bar joining said slides, and a connection from said lever to said tie bar.

3. A portable base for a motor comprising a pair of spaced frame members, a plate mounted thereon, said frame members being notched from their lower edges to receive an anchor bar, a pair of slides in said frame members having ends adapted to cover said notches partially at a distance from their upper ends, thereby leaving enclosed openings for confining the anchor bar, a lever pivoted to the bottom of said plate, a tie bar joining said slides, and a connection from said lever to said tie bar, and a spring connecting said connection to a fixed point on the bottom of said plate and adapted to draw said slides toward said notches.

4. A portable base for a motor comprising a pair of spaced frame members, a plate mounted thereon, said frame members being notched from their lower edges to receive an anchor bar, a pair of slides in said frame members having ends adapted to cover said notches partially at a distance from their upper ends, thereby leaving enclosed openings for confining the anchor bar, and means for sliding said slides, a shaft journaled on said plates and pulleys on the ends of said shaft.

5. A portable base for a motor comprising a pair of spaced frame members, a plate mounted thereon, said frame members being notched from their lower edges to receive an anchor bar, a pair of slides in said frame members having ends adapted to cover said notches partially at a distance from their upper ends, thereby leaving enclosed openings for confining the anchor bar, a motor on said plate, and means for sliding said slides.

6. A portable base for a motor comprising a pair of spaced frame members of angle iron, blocks secured in said irons and spaced from one side thereof, said blocks being grooved lengthwise, slides mounted in the grooves, a tie bar joining said slides and passing over said blocks, said frame members being notched from their lower edges to receive an anchor bar, said slides having their ends adapted to cover said notches partially at a distance from their upper ends, thereby leaving enclosed openings for confining the anchor bar, and means for sliding said slides.

7. A portable base for a motor comprising a pair of spaced frame members, a plate mounted thereon, said frame members being notched from their lower edges an anchor bar adapted for attachment to a support and for reception in the closed ends of the notches, a pair of slides in said frame members having ends adapted to cover said notches partially at a distance from their upper ends, thereby leaving enclosed openings for confining the anchor bar, and means for sliding said slides.

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