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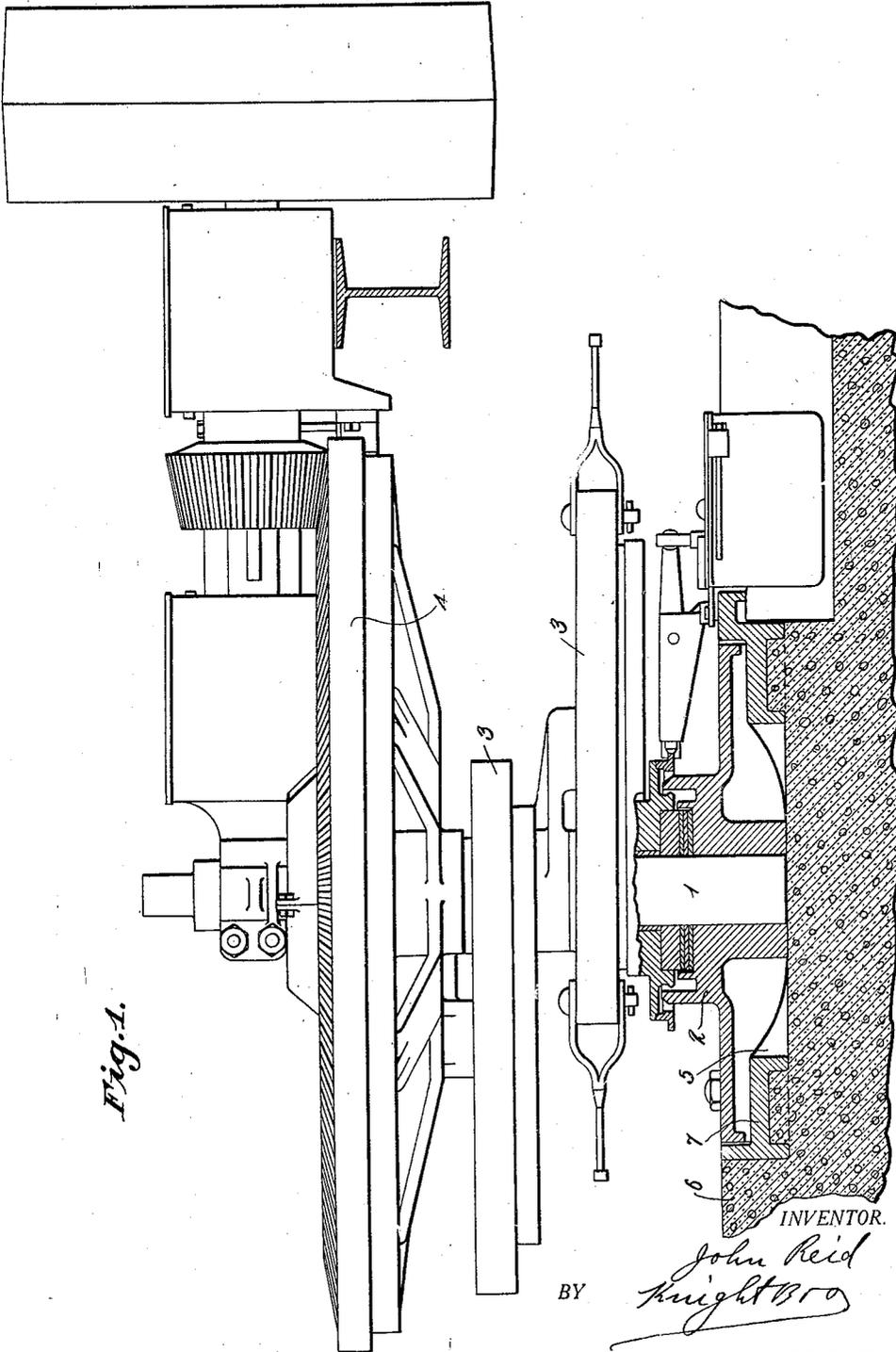
J. REID

1,840,741

MACHINE BASE MOUNTING

Filed Feb. 2, 1928

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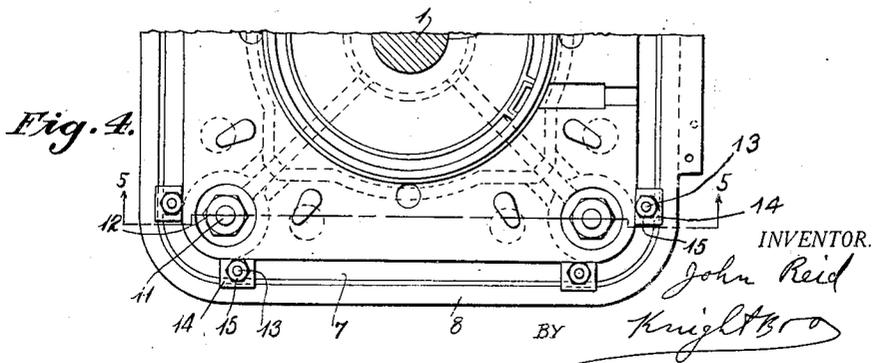
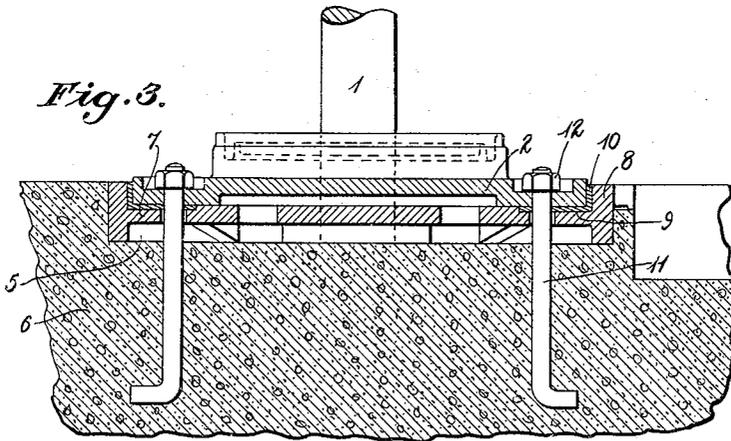
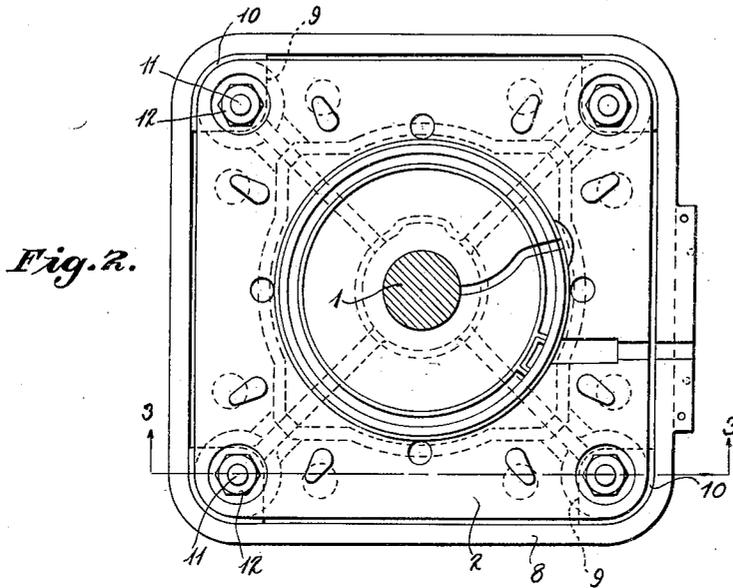
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3 Sheets-Sheet 2



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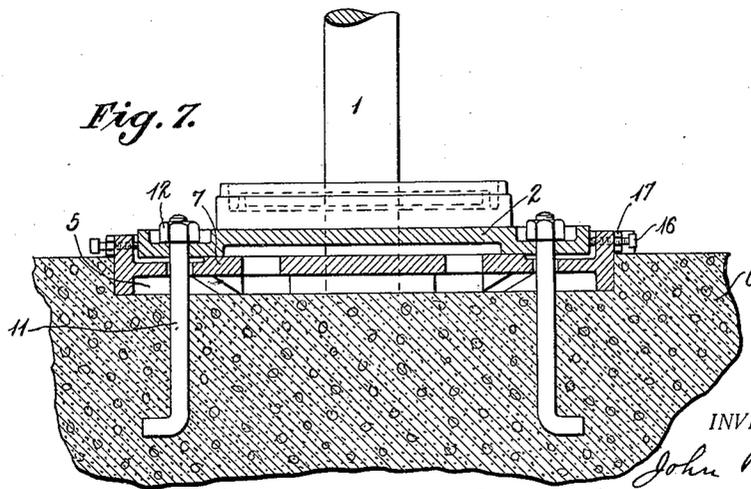
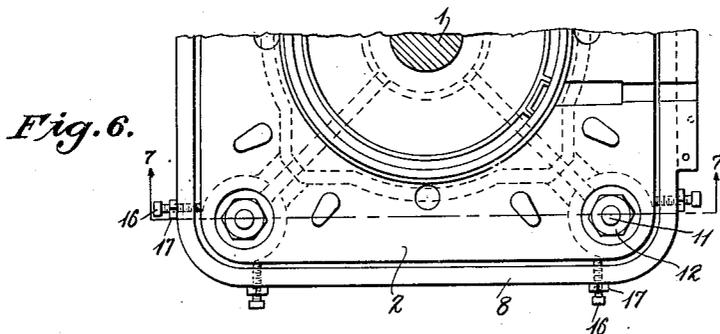
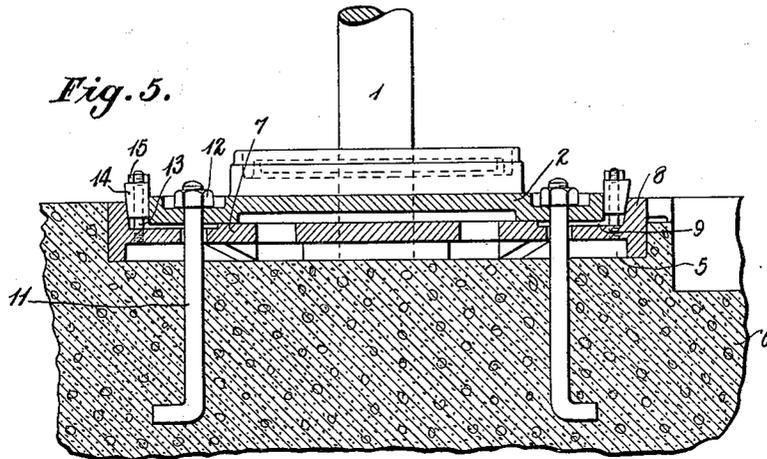
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MACHINE BASE MOUNTING

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3 Sheets-Sheet 3



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# UNITED STATES PATENT OFFICE

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## MACHINE BASE MOUNTING

Application filed February 2, 1928. Serial No. 251,414.

This invention relates to a method of mounting a machine base on a concrete foundation as well as to the mounting itself.

Heretofore in mounting a machine base on a concrete foundation it has been customary to grout the machine base in. When it became necessary to remove the machine base for any reason such as for repairs it was necessary to mutilate the foundation to some extent and sometimes the machine base was even blasted out.

This difficulty is overcome by the present invention in accordance with which a metal sub-base is first grouted into the concrete foundation and the machine base after being supported in the proper position with respect to the horizontal or vertical is secured to the sub-base in a rigid manner, but by means which can be quite easily removed without injury to foundation, sub-base, or machine base.

To illustrate the invention I have shown in the accompanying drawings and described in the following specification the mounting of a vertical shaft base for an oil well pumping power. In the drawings

Fig. 1 shows a pumping power unit in side elevation with the exception of the base, sub-base, and foundation which are shown in central vertical section,

Fig. 2 is a plan view of the base and sub-base with the upper parts of the power removed and the shaft in section,

Fig. 3 is a vertical section on the line 3—3 of Fig. 2,

Fig. 4 is a plan view of half of a modified form of base and sub-base with the upper parts of the power removed,

Fig. 5 is a vertical section on the line 5—5 of Fig. 4,

Fig. 6 is a plan view of half of a further modified form of base and sub-base, and

Fig. 7 is a vertical section on the line 7—7 of Fig. 6.

A vertical shaft 1 is secured in a base 2 and upon the shaft are rotatably mounted eccentrics 3 and a bevel gear 4 which are connected together so that all are driven by the bevel gear. The base 2 is mounted in a recess 5 of a concrete foundation 6. The outer edges

of the base 2 rest upon a sub-base 7 which is grouted into the recess 5 of the concrete foundation. The base and sub-base shown are substantially square, this being a very desirable form for rigidity and ease of mounting, but the invention is applicable to any shape of base and sub-base. The sub-base 7 has up-standing lateral flanges 8 and at each corner a depression 9.

When the sub-base 7 has been grouted into the foundation and the base is ready to be mounted, the base is set into the recess 5 with its edges extending over the sub-base and is then temporarily supported so that the shaft 1 is vertical. The depressions 9 and the space between the corners of the base and the flanges 8 are then filled with a material 10 which will solidify and support the base in the position in which it has been temporarily supported. The material 10 lying between the corners of the base and the flanges 8 holds the base against lateral shifting. I prefer to use for the material 10 an easily meltable metal such as lead or babbitt, this being poured in in molten condition and when all four corners are filled being further driven in by peening with drifts or other means. Foundation bolts 11 are anchored in the foundation 6 and extend up through holes in the corners of the sub-base 7 and base 2. The base 2 is finally clamped down by means of nuts 12 screwed onto foundation bolts 11.

In the modified form shown in Figs. 4 and 5 the depressed portions 9 in the corners of the sub-base are still provided and filled with material 10, but for taking up lateral stresses wedges 14 mounted on stud bolts 13 and held by nuts 15 are used. In this case the lateral flanges 8 have a slight outward flare corresponding to the pitch of the wedges 14.

In the modification shown in Figs. 6 and 7 the wedges 14 are replaced by jack screws 16 extending through the flanges 8 and bearing against the corners of the base. The jack screws 16 are provided with lock nuts 17. In this modification also the material 10 is used in the depressed portions 9 for supporting the base 2 vertically, but does not extend up along the sides of the base.

By means of this invention it is possible

to mount a machine base just as rigidly as with the old method of grouting it directly into the concrete foundation, but when it is necessary to remove the machine base for any reason this can easily be done by simply removing the nuts 12 and melting out the lead or babbitt or loosening the wedges or jack screws.

Having described my invention, I claim:

1. In a device of the class described, a concrete foundation, a unitary metal sub-base permanently secured in said foundation, a machine base resting solely and mounted upon said sub-base, said sub-base having depressed portions adjacent the edges of said machine base, and fillings of hardened plastic material in said depressed portions supporting and fixing the position of said machine base with respect to said sub-base. 75
2. In a device of the class described, a concrete foundation, a unitary metal sub-base permanently secured in said foundation, a machine base resting solely and mounted upon said sub-base, said sub-base having depressed portions adjacent the edges of said machine base, and fillings of easily meltable metal in said depressed portions supporting and fixing the position of said machine base with respect to said sub-base. 80
3. In a device of the class described, a concrete foundation, a unitary metal sub-base permanently secured in said foundation, a machine base resting solely and mounted upon said sub-base, said sub-base having depressed portions adjacent the edges of said machine base, fillings of hardened plastic material in said depressed portions supporting and fixing the position of said machine base with respect to said sub-base, and foundation bolts anchored in said foundation and extending through said sub-base, said fillings of solid material and said machine base. 85
4. In a device of the class described, a concrete foundation, a polygonal metal sub-base permanently secured in said foundation, said sub-base having depressed portions in its corners, a machine base having a polygonal outline similar to said sub-base, said machine base being mounted upon said sub-base with its corners above said depressed portions, and fillings of hardened plastic material in said depressed portions supporting and fixing the position of said machine base with respect to said sub-base. 100
5. In a device of the class described, a concrete foundation, a unitary metal sub-base permanently secured in said foundation, a machine base resting solely and mounted upon said sub-base, said sub-base having depressed portions adjacent the edges of said machine base and upturned lateral flanges outside of said machine base, and fillings of hardened plastic material in said depressed portions and between said flanges and the edges of said machine base supporting and fixing the position of said machine base with respect to said sub-base. 105

fixing the position of said machine base with respect to said sub-base.

The foregoing specification signed at Oil City, Pa., this 15th day of December, 1927.

JOHN REID. 70