

F. McGOUGH, SR.
ADJUSTABLE MOTOR GUIDE AND HOLDER.
APPLICATION FILED AUG. 13, 1914.

1,126,053.

Patented Jan. 26, 1915.

2 SHEETS-SHEET 1.

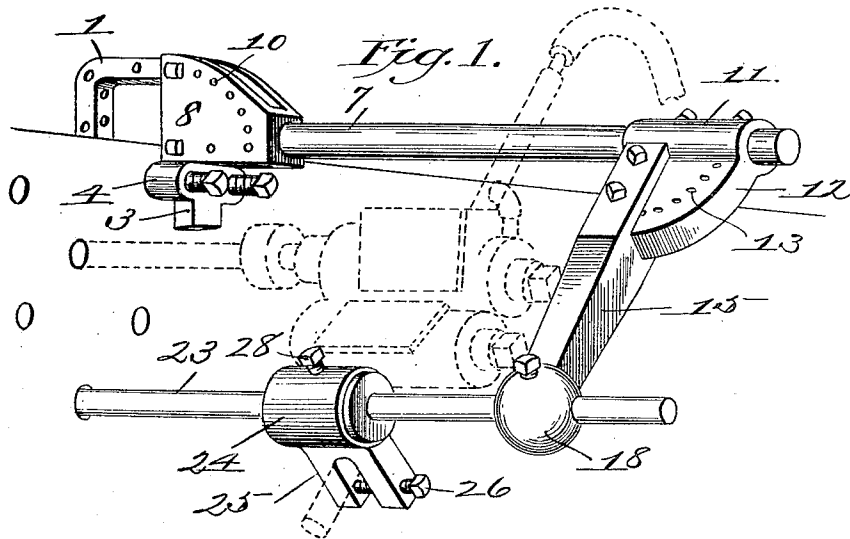


Fig. 8.

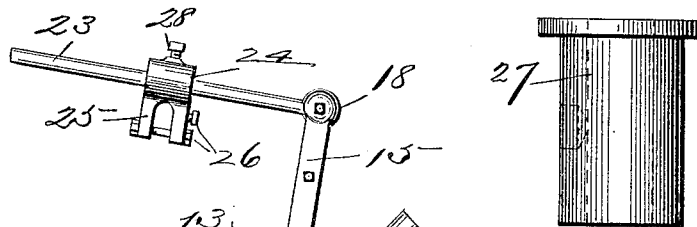


Fig. 2.

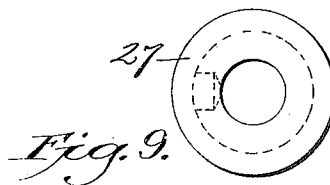
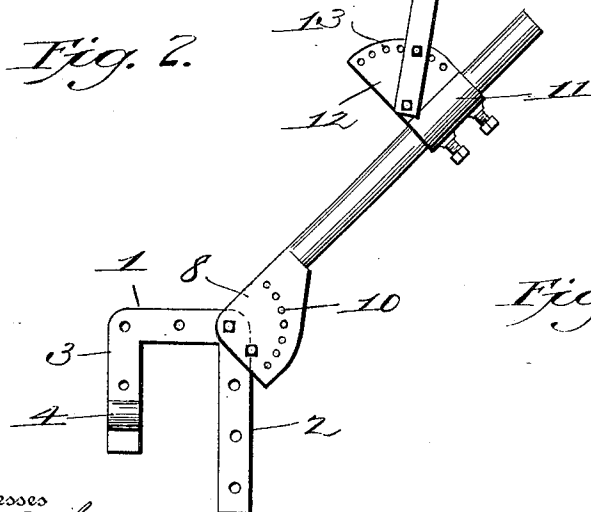


Fig. 9.

Witnesses

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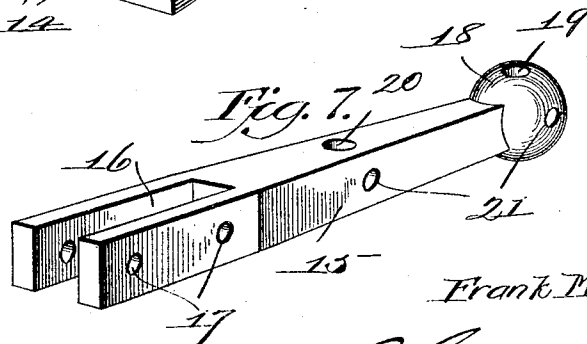
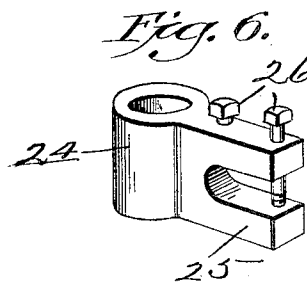
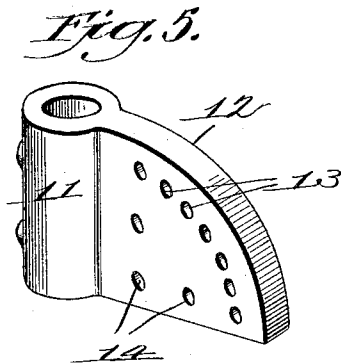
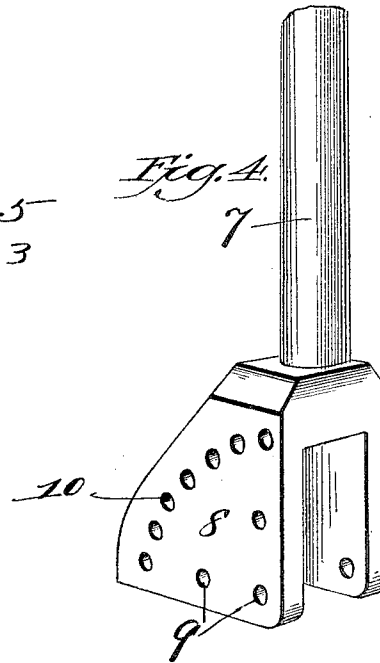
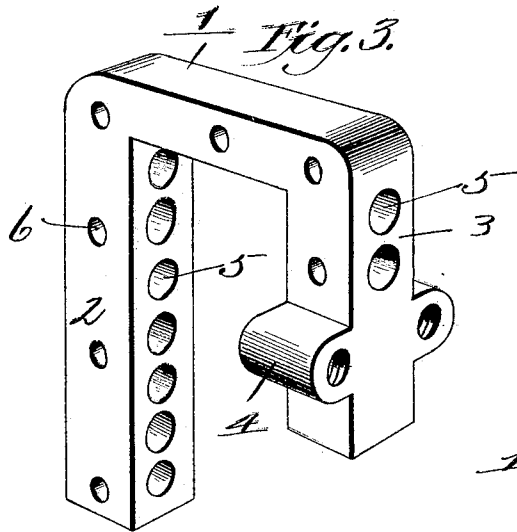
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2 SHEETS—SHEET 2.



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UNITED STATES PATENT OFFICE.

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ADJUSTABLE MOTOR GUIDE AND HOLDER.

1,126,053.

Specification of Letters Patent.

Patented Jan. 26, 1915.

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To all whom it may concern:

Be it known that I, FRANK MCGOUGH, Sr., a citizen of the United States, residing at Albuquerque, in the county of Bernalillo and the State of New Mexico, have invented a new and useful Improvement in Adjustable Motor Guides and Holders, of which the following is a specification.

This invention is especially designed for holding the handle of an air motor, and is especially adapted for use on locomotives. It is an improvement on the device usually referred to as the "old man" the construction and use of which are familiar to workmen using devices of this nature.

By the old method employed in railroad erecting shops two men were necessary, a machinist and helper, for the operation of each motor. Usually a type of air motor of about three horse power is employed, the handle held by the machinist, and the helper feeding the reamer. It is often necessary to drill or ream holes in pockets or in parts difficult of easy access. From the moment the mechanic turns on the air he is forced to occupy an unnatural position and should the tool stick or choke the handle of the motor would be forced in a direction opposite that in which the reamer or drill is running. In such event there is danger of the motor being wrenched from him and result in a broken reamer, and injury to himself and his fellow workman.

By means of my device the machinist may either sit or stand and the helper is discarded, thereby enabling one man to do the work of two. Furthermore during the winter the operator is compelled to wear a water proof coat to prevent drenching from the water forming from the air motor exhaust. With my device the operator can take such position as to avoid this, and can work to better advantage than when wearing an oil skin or rain coat.

With these various objects in view the invention consists in the novel features of construction hereinafter pointed out, and shown in the accompanying drawings, in which:

Figure 1 is a perspective view illustrating the device in use for reaming the holes in splice of main and trailer frames. Fig. 2 is a side elevation of the device, detached. Fig. 3 is a perspective view of a U-shaped clamp. Fig. 4 is a perspective view of an adjustable rod. Fig. 5 is a perspective view of a sleeve having a quadrant lug. Fig. 6 is a

perspective view of a motor holding clamp. Fig. 7 is a perspective view of an arm, detached. Figs. 8 and 9 are detail views of a sleeve bushing.

In constructing my device I employ a U-shaped clamping member 1 having a long leg 2 and a short leg 3. The short leg carries oppositely disposed perforated ears through which suitable set screws may be passed for the purpose of clamping the member 1 in position and said member is also provided on both legs with openings 5 for the same purpose. Side openings 6 are also provided by means of which a rod 7 may be bolted to the member 1, said rod being adapted to set at various angles to the member 1. This rod has an enlarged, flattened, bifurcated end portion thereby forming parallel lugs 8, said lugs being provided with bolt openings 9 for securing to the member 1. The lugs are also provided with a series of openings 10 arranged in the form of a quadrant, and by means of which the rod may be locked in its adjusted position on the clamp.

The rod carries a sleeve 11 and said sleeve carries on one side a quadrant-shaped lug 12, having openings 13 and 14, the first mentioned openings being arranged on an arc concentric with one of the openings 14.

An arm 15 is bifurcated as shown at 16 to straddle the lug 12 and is provided with openings 17 in the bifurcated portion, the end openings being intended to receive a bolt passing through one of the openings 14 of the lug 12, and the other openings to receive a bolt passing through one of the openings 13. The arm is therefore pivotally mounted on said lug and locked in its adjusted position.

The free end of the arm terminates in a spherical enlargement 18 having a transverse bore 19 to receive a guide rod 23. The arm is also provided with an opening 20 to receive said rod and openings 21 for set screws by means of which the rod can be clamped in position.

The rod carries a sleeve 24 provided on one side with a bifurcated lug 25 through which works suitable set screws 26 by means of which the sleeve can be secured to the handle of an air motor.

The sleeve is provided with a bushing 27, used when the sleeve is placed on the guide rod 23, and held in position by a set screw 28, and removed when the sleeve is placed

on the rod 7, which, under certain circumstances may serve as the guide rod.

It will be obvious from the above description and from the drawings that many adjustments can be had with this device. Set screws, or bolts, or any desired combination of the two may be employed when and where necessary to secure the various parts in position or lock them in adjusted position. The rod 7 may be placed at almost any desired angle to the clamp 1, and the arm 15 turned about the rod to point in any direction, or swung through a wide range on the lug 12, said arm being adjustable both with respect to the rod 7 and the sleeve 11, while the guide rod 23 may be inserted in either of the openings 20 and properly adjusted. The sleeve 24 can also be slipped to any point on the rod 23 and turned to extend either laterally, upwardly or downwardly, with respect to the guide rod.

With all of these various adjustments any part to be drilled, reamed or otherwise worked on can be readily reached.

What I claim is:

1. A device of the kind described comprising a rod, a sleeve mounted to slide and rotate on said rod, an arm carried by the sleeve and adapted to swing through an arc independent of movement of the sleeve, a guide rod carried by and slidable through said arm, means carried by the guide rod for engaging the handle of an air motor, and means for adjustably securing the first mentioned rod to a support.

2. A device of the kind described comprising

a U-shaped clamping member, a rod having adjacent one end lugs adapted to fit over a portion of said clamping member, said lugs having bolt receiving perforations arranged in an arc, and said clamping member having a series of bolt receiving perforations, the lugs having bolt receiving perforations adapted to register with those of the clamping member, an arm having bolt receiving openings, and a motor supporting guide rod slidably carried by said arm.

3. A device of the kind described comprising a U-shaped clamping member, a rod having lugs adapted to fit over said clamping member and adjustable thereon, a rotatable sleeve on said rod, said sleeve carrying a quadrant shaped lug, an arm pivoted to and working on said lug, a guide rod slidably carried by the arm, and a motor handle clamping device carried by said arm.

4. A motor supporting device comprising a clamp adapted to be secured to a suitable support, a rod carried by said clamp and adjustable thereon, a sleeve rotatable on said rod, a lug formed on one side of said sleeve, an arm pivoted on said lug, means for locking the arm in adjusted position, said arm having a transverse bore, a guide rod slidably mounted in said bore, a sleeve on said guide rod, and means carried by said sleeve for clamping a motor handle.

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Witnesses:

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