

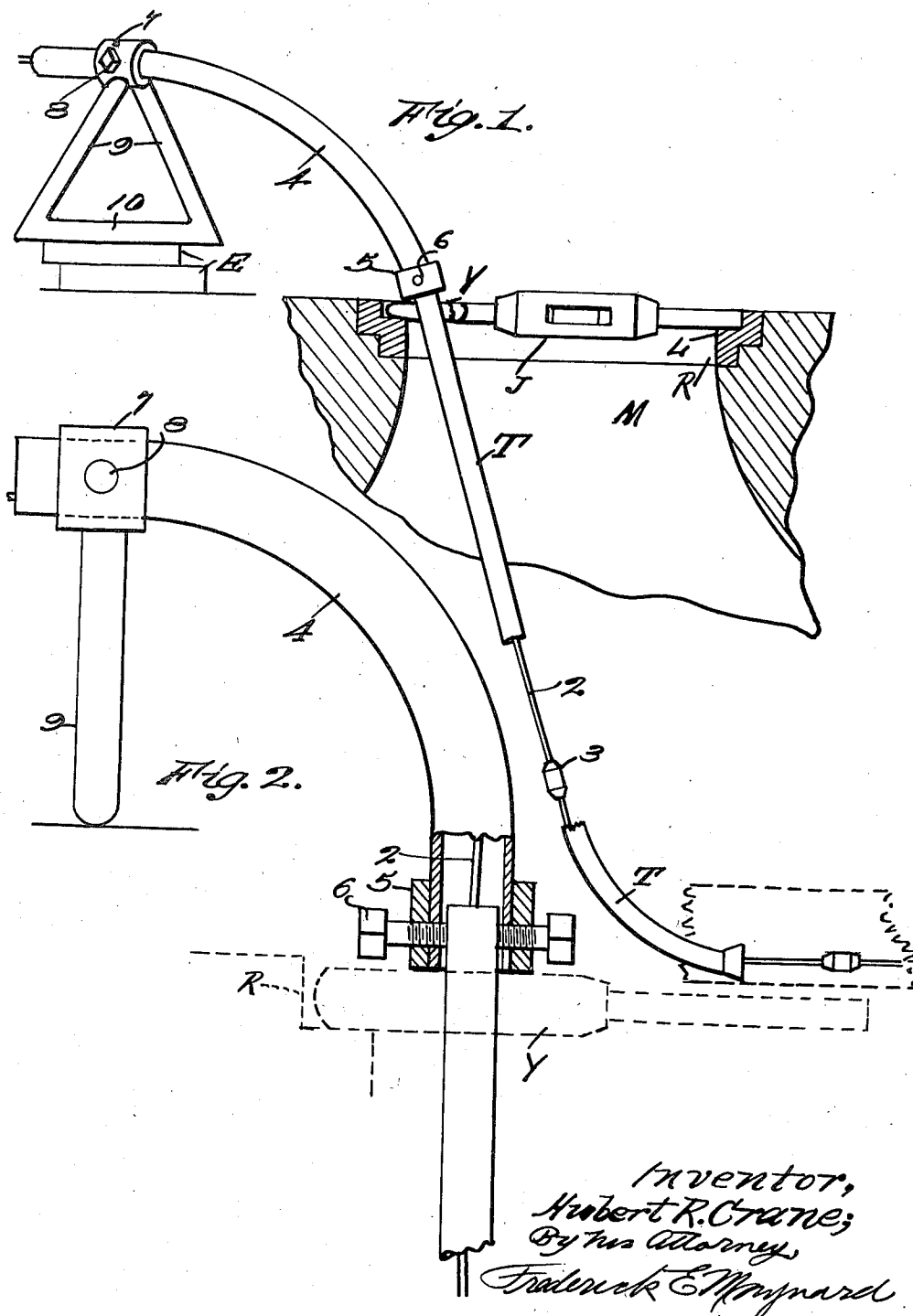
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ROD GUIDE JACK EQUIPMENT

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2,334,908

ROD GUIDE JACK EQUIPMENT

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1 Claim. (Cl. 15—104.30)

This invention is a pulling guide for the flexible rods of sewer or other bore cleaning equipment; a drive rod of the type shown in U. S. Letters Patent 2,110,202 for instance.

It is an object of this invention to provide a simple, practical, substantial, low cost, readily portable, light weight and suitably adjustable guide means to be combined with other drive guiding apparatus which is adapted to be very rigidly set up in a manhole for the introduction of the retraction of the given drive rod whereby a relative implement on the rod is manipulated. It is conventional to brace in the installed manhole rod guide which usually terminates at about the street or other surface level, according to the job in hand.

It is an object of the present device to facilitate the retraction of the rod from the sewer by way of the installed manhole guide by the positive deflection of the coming-out rod sections through a curved tubular guide to a desired truck hitch level and off in a generally horizontal direction to the hitch through an arc in the level guide that will not crimp the steel rod, which is flexible to the desired capacity for this work, and give it a permanent bend set, and to deflect the rod coming from the hole in an arc that will provide for such a free flex as to enable the rod to be pulled safely and at a good speed by the use of an autotruck, for instance, with a hitch to which the remote (from the hole) end of the rod is tackled.

Further an object is to provide a well jacked pulling guide with a preferably permanently affixed footing device and collar clamp the latter to adjustably attach onto the "pulling" guide; though it is to be understood that the guide can be used for running in the rod string as well.

The invention consists of certain advancements in bore cleaning equipment and rod handling apparatus as set forth in the ensuing disclosure and having, with the above, additional objects and advantages as hereafter developed, and whose constructions, combinations and sub-combinations, and details of means and the manner of operation will be made manifest in the following description of the herewith illustrative embodiment; it being understood that modifications, variations and adaptations may be resorted to within the scope, spirit and principle of the invention as it will be more particularly claimed presently.

Figure 1 is a sectional perspective of the applied guide as associated with an installed, that is, a braced upstanding, manhole, rod guiding tube. Figure 2 is a detail, sectional elevation of the puller guide.

The upper part of a sewer manhole M is shown as having a cover receiving ring R with a shelf lip L and the upper portion of an elongate guide tube T is disposed in the hole and jammed to a firm position by the yoke Y of a turnbuckle J

whose ends are landed on the said lip. The lower end of the tube T is usually provided with a long radius guide bend here shown to lead to or from a sewer bore a tool driving rod 2, made of suitable length sections detachably connected by rod couplings 3 (note said patent for details).

These rods are best handled by power machines for axial function and for rotation on the rod axis.

The present invention embodies a suitably large radius curved tubular guide member 4 (approximating a quadrant of a circle in length) and whose end portions may be short tangents.

On one end of the guide 4 is fixed a substantial collar 5 having one or more stout set screws 6 passing into the bore of the guide as a means for clinching the intruded terminal of the standing guide tube T through which the rod 2 is threaded. The opposite end of the guide 4 has an external collar 7 slidably fitted thereon and fixable by set screw means 8 or otherwise and to the collar is preferably rigidly affixed a jack stand here comprising divergent limbs 9 whose spread lower ends are joined rigidly as by a base or footing limb 10; the several limbs forming a flat triangle welded at the apex to the lower side of the sliding collar 7. The reach or far end of the pulling guide 4 is preferably disposed, in practice, at about the horizontal plane of any suitable or conventional tackle hitch, not shown, of a power plant with a drawline works, or as of a motor-vehicle or truck.

Thus in operation, the rod 2 is led off from the manhole M by the deflecting pulling guide 4, attached to the tube T, at the best level as to the hitch and the remote end of the rod is connected to the drawing line or hitch; the jack stand 9 being, if desired, raised by boosting blocks E which may be picked up on the job or may form a part of the regular equipment. Having made the hitch, power is applied to put a pull on the rod 2 and this will be easily and safely drawn at a desired speed from the sewer. Excessive labor costs are reduced by this equipment for the reason that the job, above outlined, can in frequent cases be entirely handled by one or two ordinary laborers and upkeep from wear and tear is almost nil.

What is claimed is:

A rod line guide and jack set for autovehicle power use and comprising a relatively long radius curved tube to prevent setting a bend in a resilient rod section, said tube being straight at its end portions, a collar rigidly fixed on one end of the tube and having radial set screws entering the tube bore to bind onto the intruded end of a manhole pipe rod-guide, and a vertical jack or pillow device having a socket collar slidably fitted on the other end of the tube and having set screws to fix onto the tube.

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