J. MERTIAN.

PIPE PULLER.

APPLICATION FILED SEPT. 21, 1918.

1,320,403.

Patented Nov. 4, 1919.

Fig. 1.

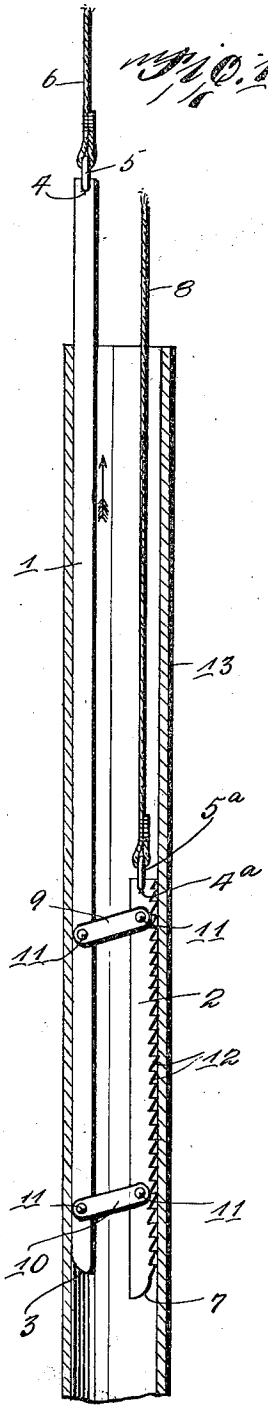


Fig. 3.

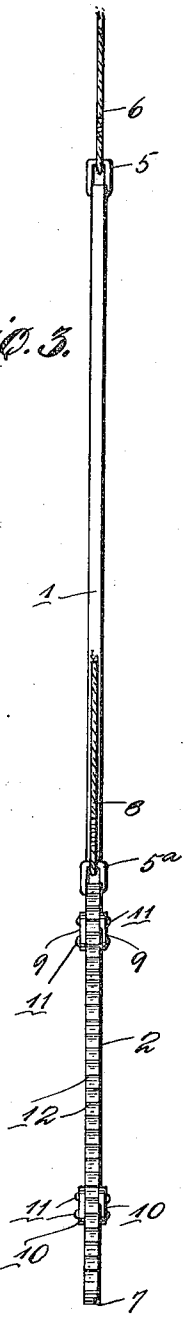


Fig. 2.

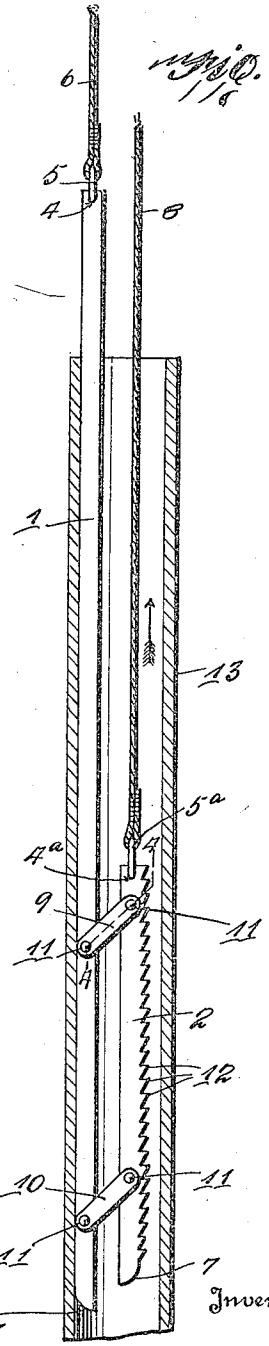
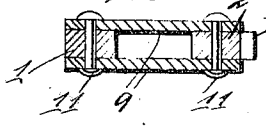


Fig. 4.



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PIPE-PULLER.

1,320,403. Specification of Letters Patent. Patented Nov. 4, 1919.

Application filed September 21, 1918. Serial No. 255,056.

To all whom it may concern:

Be it known that I, JACOB MERTIAN, a citizen of the United States, residing at Des Moines, in the county of Union and State of New Mexico, have invented certain new and useful Improvements in Pipe-Pullers, of which the following is a specification, reference being had therein to the accompanying drawings.

This invention relates to a pipe pulling device, and more particularly to that class of pullers that are inserted into a pipe sunk in the ground, which is desired to be removed.

The principal object of this invention is the construction of a very simple and efficient pipe puller of the class hereinafter specifically described, and which puller is very positive in operation.

With these and other objects in view, my invention comprises certain other novel constructions and arrangements of parts as will be more fully described and claimed hereinafter.

In the drawings:

Figure 1 is a view in side elevation of my pipe pulling device, showing the same in its operative position inside of a pipe.

Fig. 2 is a view similar to Fig. 1, except that the device is in an inoperative position, ready to be removed from the pipe.

Fig. 3 is a front edge view of the device shown in Figs. 1 and 2.

Fig. 4 is a horizontal transverse sectional view taken on line 4—4, Fig. 2.

Referring to the drawings by reference numerals 1 designates the primary bar and 2 the auxiliary bar.

The primary bar 1 is inwardly beveled or rounded at its lower end 3, and near its upper end, as at 4, there is formed an aperture, in which aperture 4 is mounted a loop 5. Fastened to the loop 5 is a hoisting cable 6.

The auxiliary bar 2 is inwardly beveled or rounded on its lower end 7, similar to the beveling of the lower end of the primary bar 1, at 3, and bar 2 is provided near its upper end with an aperture 4^a in which aperture is pivotally mounted a loop 5^a to which loop or ring auxiliary hoisting and actuating cable 8 is fastened.

A primary pair of connecting links 9, and an auxiliary pair of links 10 are fastened to the primary bar 1 and the auxiliary bar 2 by means of rivets 11. These pairs of links, by reason of the links of each pair engaging outer faces of the bars, constituting substantial bracing means, whereby the bars are kept in alinement and causing the auxiliary bar, through its teeth 12 to be ready to grip a pipe 13 when the operator so desires. The teeth 12 are formed in the outer edge of the auxiliary bar and each tooth extends slightly upwardly so that the teeth will readily bite the inner surface of the pipe 13 when the device is in the position shown in Fig. 1, and a lifting strain is placed upon the hoisting cable 6.

If after the device has been let down in a pipe, and has assumed the position shown in Fig. 1, it is desired to remove the same, then all that is necessary is to exert a lifting strain upon the auxiliary hoisting cable 8, causing the bar 2 to assume the position shown in Fig. 2, then a lifting strain is placed upon hoisting cable 6, sufficient strain being continued on cable 8 for keeping bar 2 from engaging the pipe, the entire device can be then removed from the pipe 13.

From the foregoing it will be seen that I have provided a very simple and yet efficient pipe puller; that by reason of its peculiar construction, including the pairs of links, my device will operate positively, no "wabbling" or "side-movement" of either bar with respect to the other bar will be permitted.

What I claim is:

As a new article of manufacture, a pipe puller comprising a primary straight bar provided with an inwardly-extending beveled lower end, said bar of comparatively long length and being provided with an outer smooth face its entire length and provided near its upper end with an aperture, a loop-link pivotally mounted in said aperture, a hoisting cable fastened in said loop link, an auxiliary comparatively short bar provided with a plurality of slightly upwardly-extending teeth formed in its outer edge, said auxiliary bar provided with an inwardly-extending beveled lower end and with an aperture near its upper end, a loop-link pivotally mounted in said aperture, a hoisting cable fastened to said last-men-

tioned loop-link, a plurality of pairs of links engaging the sides of said bars, said bars being of the same width throughout their length and having straight, smooth, inner faces whereby the bars are adapted to close snugly together at their inner faces, and fastening means extending through the bars and through the links in each pair and pivotally connecting said pairs of links together, substantially as shown and described.

In testimony whereof I hereunto affix my signature.

JACOB MERTIAN.

Copies of this patent may be obtained for five cents each, by addressing the "Commissioner of Patents, Washington, D. C."