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MEANS FOR REMOVING SHORT PIPES FROM CONTRACTED PLACES.

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1,180,758. Patented Apr. 25, 1916.

Fig. 1.

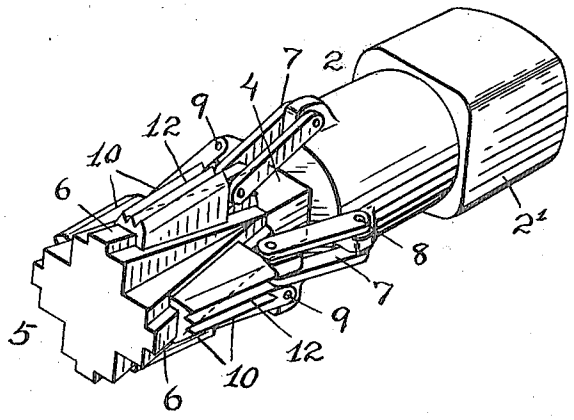
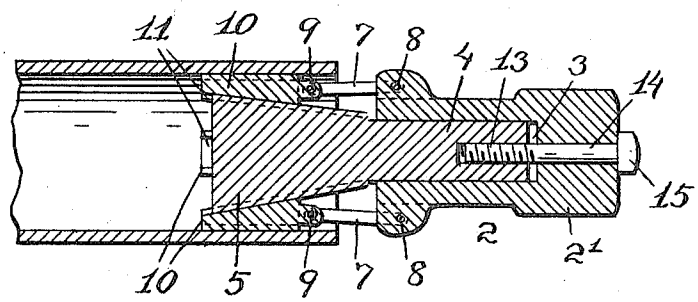


Fig. 2.



Witness

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MEANS FOR REMOVING SHORT PIPES FROM CONTRACTED PLACES.

1,180,758. Specification of Letters Patent. Patented Apr. 25, 1916.

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To all whom it may concern:

Be it known that we, OLE BREKKE and MINTON FAEHN, citizens of the United States, residents of Wallace, in the county of Codington and State of South Dakota, have made a certain new and useful Invention in Means for Removing Short Pipes from Contracted Places; and we declare the following to be a full, clear, and exact description of the same, such as will enable others skilled in the art to which it appertains to make and use the invention, reference being had to the accompanying drawings, and to letters or figures of reference marked thereon, which form a part of this specification.

Figure 1 is a perspective view of the invention. Fig. 2 is a central longitudinal section of the invention as applied.

The invention has relation to means for removing short or stub pipes from contracted corners or cramped places, where a common pipe wrench cannot be used, and it consists in the novel construction and combinations of parts, as hereinafter set forth.

In the accompanying drawings, illustrating the invention, the numeral 2 designates a hollow tubular rod or carrier, having at its upper end a squared or polygonal wrench seat head 2′, and at its lower end a squared aperture 3, wherein fits the squared shank 4 of the expander 5, said expander being of wedge or tapered form and provided with a plurality of inclined ribs 6, converging upwardly. The lower end of the tubular carrier is provided with a plurality of links 7, pivoted at their upper ends to the carrier at 8, and pivoted to the lower ends of said links at 9 is a plurality of pipe grippers 10, said pipe grippers having in their inner faces longitudinal grooves 11, engaging respectively the inclined ribs of the expander, and upon their outer surfaces longitudinal teeth 12, designed for engagement with the inner face of the stub ends of pipe. An operating rod 14 extends upwardly through the tubular carrier, said rod being adjustable to move the expander longitudinally, usually by means of a threaded lower end 13 engaging a threaded aperture of the expander shank. The rod is turned for the purpose stated, usually, by means of an upper head 15 thereof, with which a common wrench or a screwdriver may be engaged.

In use, the pipe grippers pass into the end of pipe to be turned and removed, the operating rod being then turned as stated, to move the expander upwardly and force outwardly the pipe grippers, so that the teeth thereof will engage the inner faces of the pipe end. The expander having wedge engagement with the pipe grippers upon a slight incline, the outward movement of the grippers will be slow and powerful, and the engagement of the grippers with the pipe end will be secure. An ordinary wrench is now engaged with the upper wrench seat head of the tubular carrier, the pipe grippers, the wedge expander and the pipe all turning together to remove the pipe from its seat.

We claim:

1. A device for the purpose described, consisting of a tubular carrier, a wedge expander having a shank engaging the lower end of said carrier, an operating rod for said expander engaging said carrier, links pivoted at their upper ends to said carrier, and pipe grippers pivoted at their upper ends to said links and engaging said expander.

2. A device for the purpose described, consisting of a tubular carrier having an upper wrench seat head, a wedge expander having a shank engaging the lower end of said carrier, an operating rod for said expander engaging said carrier and having an upper wrench seat head, links pivoted at their upper ends to said carrier, and pipe grippers pivoted at their upper ends to said links and engaging said expander.

3. A device for the purpose described, consisting of a tubular carrier having an upper wrench seat head, a wedge expander having a shank engaging the lower end of said carrier, and inclined ribs, an operating rod for said expander engaging said carrier and having an upper wrench seat head, links pivoted at their upper ends to said carrier, and pipe grippers pivoted at their upper ends to said links and having longitudinal recesses engaging said ribs, said grippers having outer longitudinal teeth for engagement with the inside of a pipe.

4. A device for the purpose described, consisting of a tubular carrier having a squared seat and an upper wrench seat head, a wedge expander having a squared shank engaging said seat, and inclined ribs, an operating

rod for said expander engaging said carrier and having an upper wrench seat head, links pivoted at their upper ends to said carrier, and pipe grippers pivoted at their upper ends to said links and having longitudinal recesses engaging said ribs, said grippers having outer longitudinal teeth for engagement with the inside of the pipe.

In testimony whereof we affix our signatures, in presence of two witnesses.

O. BREKKE.
M. FAEHN.

Witnesses:
E. C. USTRUD,
P. O. BREKKE.

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