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PIPE STRAIGHTENING ATTACHMENT FOR PRESSES

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Fig. 2.

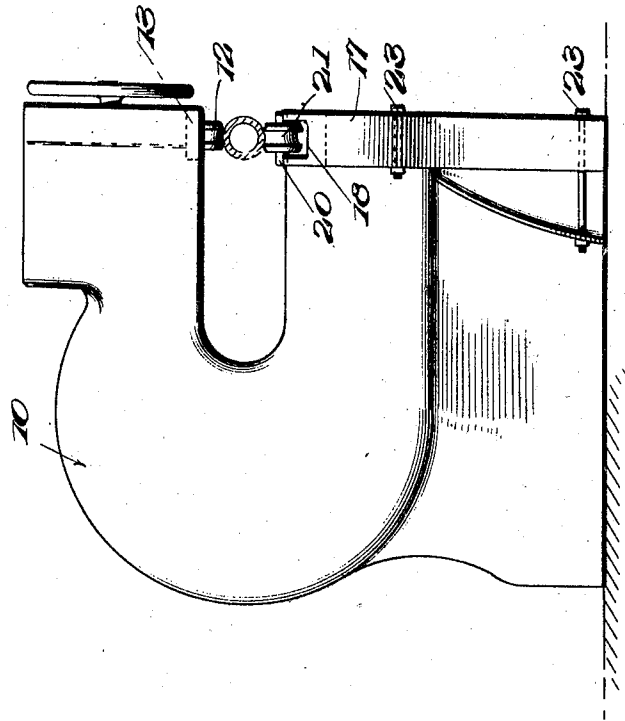
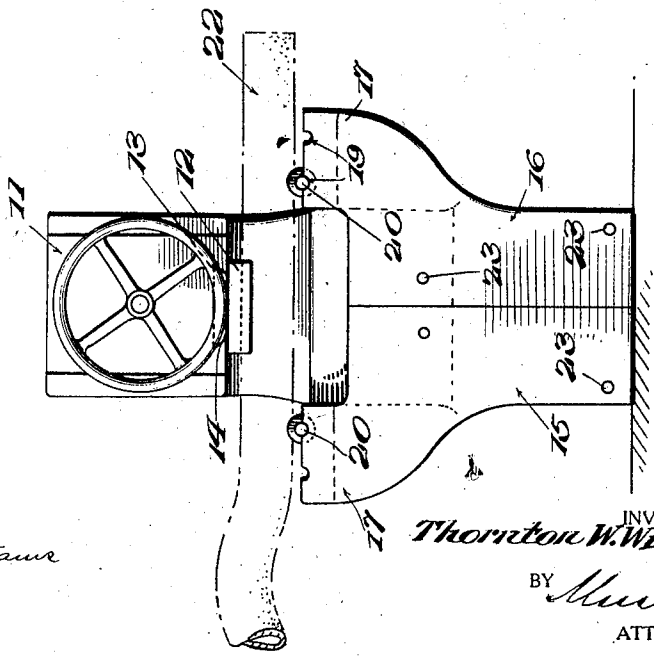


Fig. 1.



WITNESSES

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PIPE-STRAIGHTENING ATTACHMENT FOR PRESSES.

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My present invention relates generally to pipe and tube straightening devices, and more particularly to pipe and tube straightening attachments applicable to a certain class of power machines, more especially punch presses whereby such machines may be easily and quickly adapted to the straightening of pipes and tubes.

In the accompanying drawing which illustrates my present invention and forms part of this specification,

Figure 1 is a front view showing the well known type of punch press to which my pipe straightening attachment has been added.

Figure 2 is a side view thereof.

Referring now to these figures, I have shown in a very general way a punch press of known construction, the frame of which is indicated at 10 and the vertically movable plunger at 11.

The pipe or shearing blade is commonly attached to the plunger 11 by virtue of a dove-tailed slot at the lower end of the plunger, and for this reason my invention composes a pipe engaging die 12 provided with a dove-tailed rib 13 by means of which it may be readily associated with the dove-tailed slot 14 of the plunger, as most plainly seen in Figure 1, in order to properly support the die for movement with the plunger.

My invention also proposes a pipe and tube support preferably including two similar sections 15 and 16, each provided with an upper outwardly offset portion 17 whose upper surface is grooved as at 18 and whose upper edges have oppositely disposed recesses 19 forming bearings at the upper side portions of the grooves 18. These bearings receive the trunnions 20 of pipe and tube supporting rollers 21 whose lower portions extend into the grooves 18 and whose upper portions, projecting above the sections 15 and 16 of the support are thus adapted to engage a pipe or tube 22 at spaced points below and upon opposite sides

of the die 12, the latter of which and the rollers 21 being grooved to facilitate their engagement with the pipe or tube surface.

By forming the support in two similar sections 15 and 16, it may be more readily manufactured and transported, and especially in view of the fact that these sections are exactly alike they may be readily reversed so that but a single form is necessary and rights and lefts are avoided.

The sections 15 and 16 of the support are preferably secured to the lower portion of the frame 10 of the punching shearer as by means of attaching bolts 23 and the support as a whole extends in the up-right position shown in Figure 2 so that the pipe or tube to be bent is thus in vertical alinement with the die 12 lowered into engagement with that portion of the pipe between the rollers 21, by virtue of downward movement of the plunger 11.

In this way punches of the type described, commonly found in the oil well districts may be easily and quickly adapted to the straightening of tubes and pipes used in pipe lines as well as hollow drill stems, well casings and the like so that the necessity of separate machines for this purpose is avoided in the interest of the company.

What I claim is:

A pipe straightening attachment for punch presses of the type having a vertically movable plunger, consisting of a grooved pipe engaging die mounted in connection with said plunger, a support mounted in connection with the press frame below the plunger, and pipe supporting rollers mounted in said support below and at opposite sides of the die, the said support being in two similar sections, detachably connected to the press, and, having oppositely outstanding and upstanding portions grooved along the top thereof and provided with bearing recesses for the rollers at opposite sides of the grooves.

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