

(No Model.)

2 Sheets—Sheet 1.

T. B. NUTTALL.
APPARATUS FOR THE MANUFACTURE OF PIPE.

No. 566,611.

Patented Aug. 25, 1896.

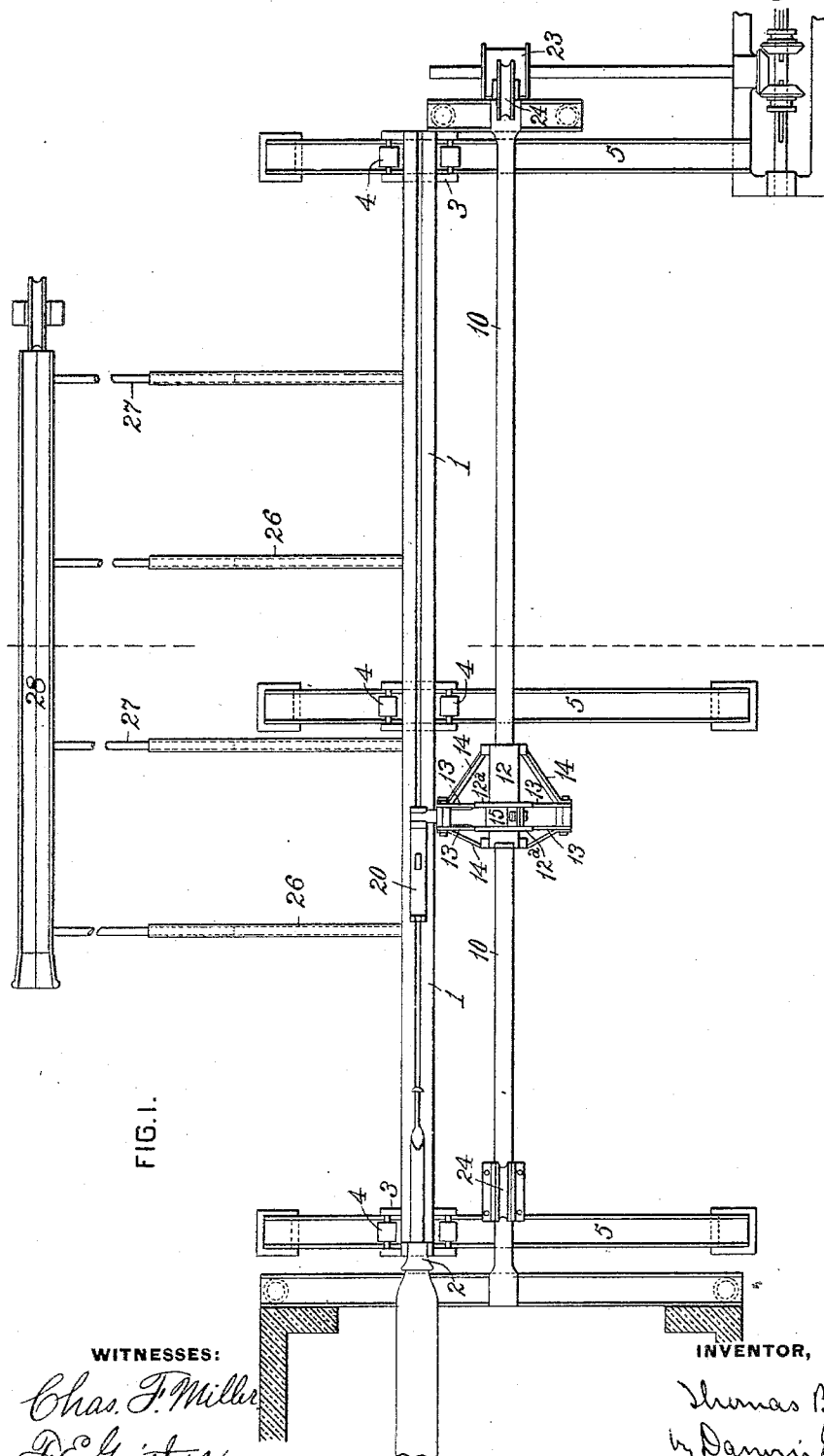


FIG. 1.

WITNESSES:

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THOMAS B. NUTTALL, OF PITTSBURG, PENNSYLVANIA, ASSIGNOR OF ONE-HALF TO JOSHUA RHODES, OF ALLEGHENY, PENNSYLVANIA.

APPARATUS FOR THE MANUFACTURE OF PIPE.

SPECIFICATION forming part of Letters Patent No. 566,611, dated August 25, 1896.

Application filed June 6, 1896. Serial No. 594,499. (No model.)

To all whom it may concern:

Be it known that I, THOMAS B. NUTTALL, a citizen of the United States, residing at Pittsburgh, in the county of Allegheny and State of Pennsylvania, have invented or discovered certain new and useful Improvements in Apparatus for the Manufacture of Pipe, of which improvements the following is a specification.

The invention described herein relates to certain improvements in draw-benches for the manufacture of pipe, and has for its object a construction wherein the pipe-bench is movable transversely in front of the heating-furnace, so that it may be brought in line with any one of a number of skelps arranged within the furnace, such movable bench being used in connection with a stationary draft mechanism having an adjustable connection to a draft-buggy on the bench and adapted to be shifted by the bench in its transverse movement.

The invention is hereinafter more fully described and claimed.

In the accompanying drawings, forming a part of this specification, Figure 1 is a top plan view of my improved apparatus for manufacturing pipe. Fig. 2 is a side elevation of the same; and Fig. 3 is an end elevation, portions of the draft mechanism being shown in section.

In the practice of my invention the bench 1, which is formed with a longitudinal slot therethrough and has the bending or welding die 2 secured on its front end, is provided with lateral brackets 3, having friction-rollers 4 mounted therein and adapted to move along supporting-rails 5, arranged in front of and parallel, or approximately parallel, with the furnace and at suitable distance therefrom. The under side of the rails 5 is provided with toothed bars 6, with which pinions 7 on the shaft 8 are adapted to intermesh, said shaft being mounted in bearings 9, suspended from the bench 1. By the rotation of this shaft the bench can be shifted laterally to any desired position in front of the furnace.

About midway of the middle of the furnace is arranged a horizontal rail 10, supported at its ends by frames 11, one located immediately in front of the furnace and the other at a dis-

tance therefrom greater than the desired traverse of the pipe-drawing buggy. On the rail 10 is mounted a sleeve 12, provided with collars 12^a, to which is secured a sector-frame 13, consisting of two side plates secured together at the ends and laterally braced by bars 14 to the ends of the sleeve. Between collars on the sleeve 12 is mounted a hub 15, provided with a socket 16, projecting radially therefrom and between the plates of the sector, which serves to hold the socket as against lateral movement in a direction parallel with the bench, while free to turn in a vertical plane at right angles to the bench. One end of a bar 18 is arranged within the socket, so as to move back and forth therein, while the opposite end of said bar is pivotally connected to the draft-bar of the buggy. This buggy consists of slides 19, arranged in suitable guideways in the bench, and a draft plate or bar 20, attached to said slides about midway of its length and having one end connected to the bar 18, as hereinbefore stated, while its opposite end is provided with a hook or other suitable means whereby the pipe-tang or pipe-tongs may be connected with the buggy. In order to shift the sleeve 12 and the buggy to which the sleeve is connected from and toward the furnace, an endless rope 21 is connected at one end to one of the sector-plates, passes rearwardly over a guide-pulley 22, mounted in the rear frame or standard, around a driving-drum 23, over guide-pulleys 24 and 25, mounted on the rear and front frame, respectively, and having its end connected with the sleeve 12. It is preferred to connect that part of the rope which shifts the buggy during the bending or welding of a pipe as near as possible to the buggy itself to prevent lateral strains on the connections between the sleeve and buggy, although it may be connected directly to the sleeve. The part of the rope which returns the buggy to the front of the bench is preferably connected with the sleeve above the rail 10, so as to be out of the way of the workmen.

To one side of the bench are secured tubes 26, whose opposite ends fit over one end of a series of bars 27, the outer ends thereof being attached to a trough 28, into which the finished pipes are rolled, the tubes and bars serving

as skids for the transfer of the pipes from the bench to the trough.

It will be observed that as the bench is shifted back and forth in front of the furnace the socket will be correspondingly shifted between the sector-plates, the bar 18 sliding in and out of the socket as the bench moves toward or from middle position.

I claim herein as my invention—

10 1. In a pipe bending or welding apparatus, the combination of a bench, a bending or welding die, means for shifting the bench later-
ally, a buggy mounted on the bench, a centrally-arranged draft mechanism, and an ex-
15 tensible connection between the draft mechanism and the buggy, substantially as set forth.

2. In a pipe bending or welding apparatus, the combination of a bench, a bending or welding die, means for shifting the bench later- 20
ally, a buggy mounted on the bench, a centrally-arranged rail, a sleeve mounted on the rail, a sector secured to the sleeve, a socket mounted on the sleeve and laterally braced 25
by the sector, and a bar movable in and out of the socket and connected to the buggy, substantially as set forth.

In testimony whereof I have hereunto set my hand.

THOMAS B. NUTTALL.

Witnesses:

DARWIN S. WOLCOTT,
F. E. GAITHER.