

(No Model.)

3 Sheets—Sheet 1.

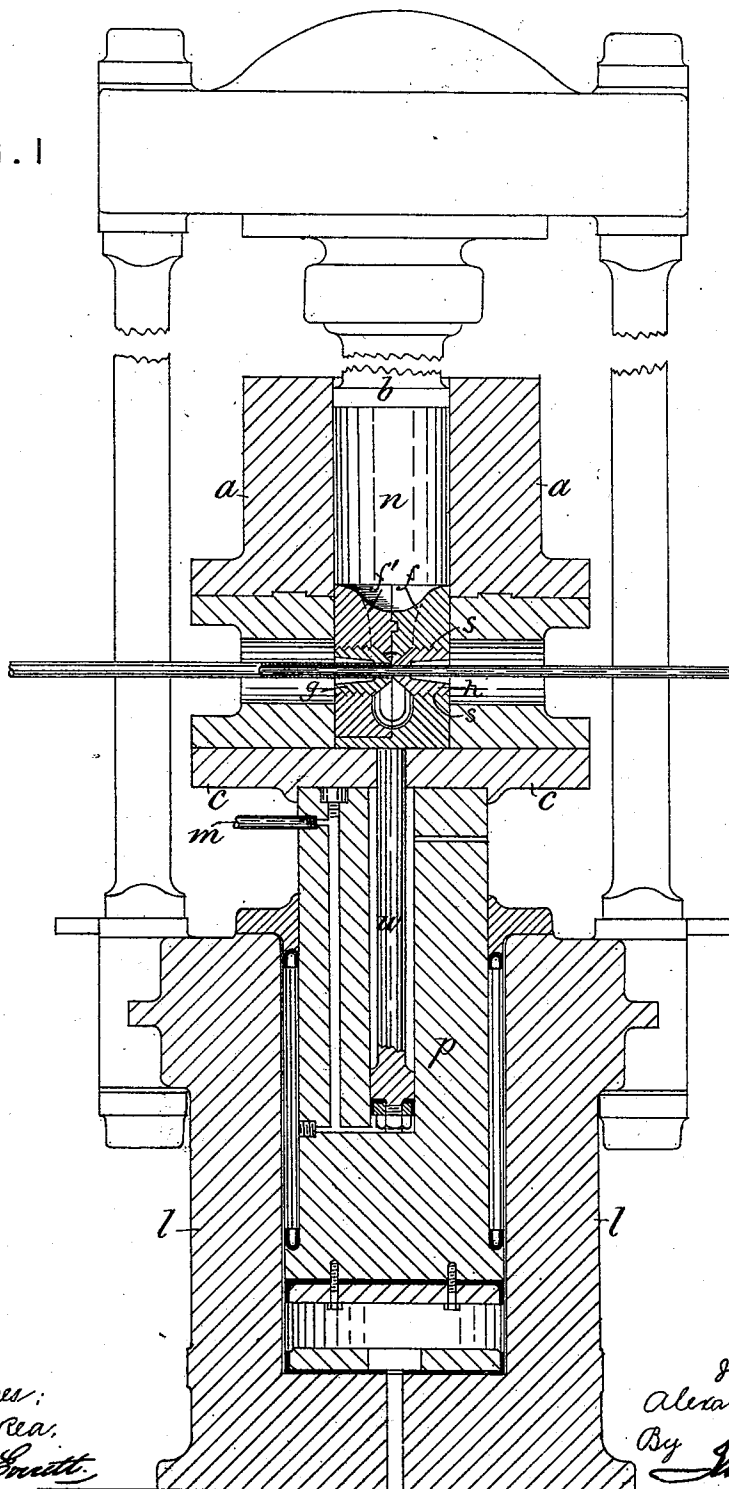
A. WYLIE.

APPARATUS FOR MANUFACTURING PIPES, COVERING WIRE, &c.

No. 512,143.

Patented Jan. 2, 1894.

FIG. 1



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(No Model.)

3 Sheets—Sheet 2.

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FIG. 2

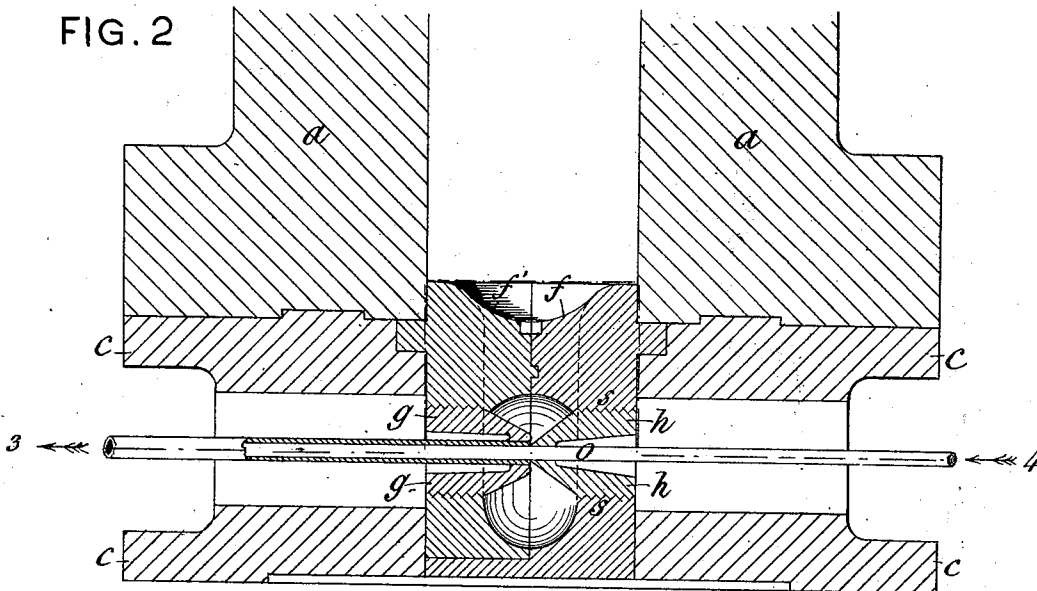
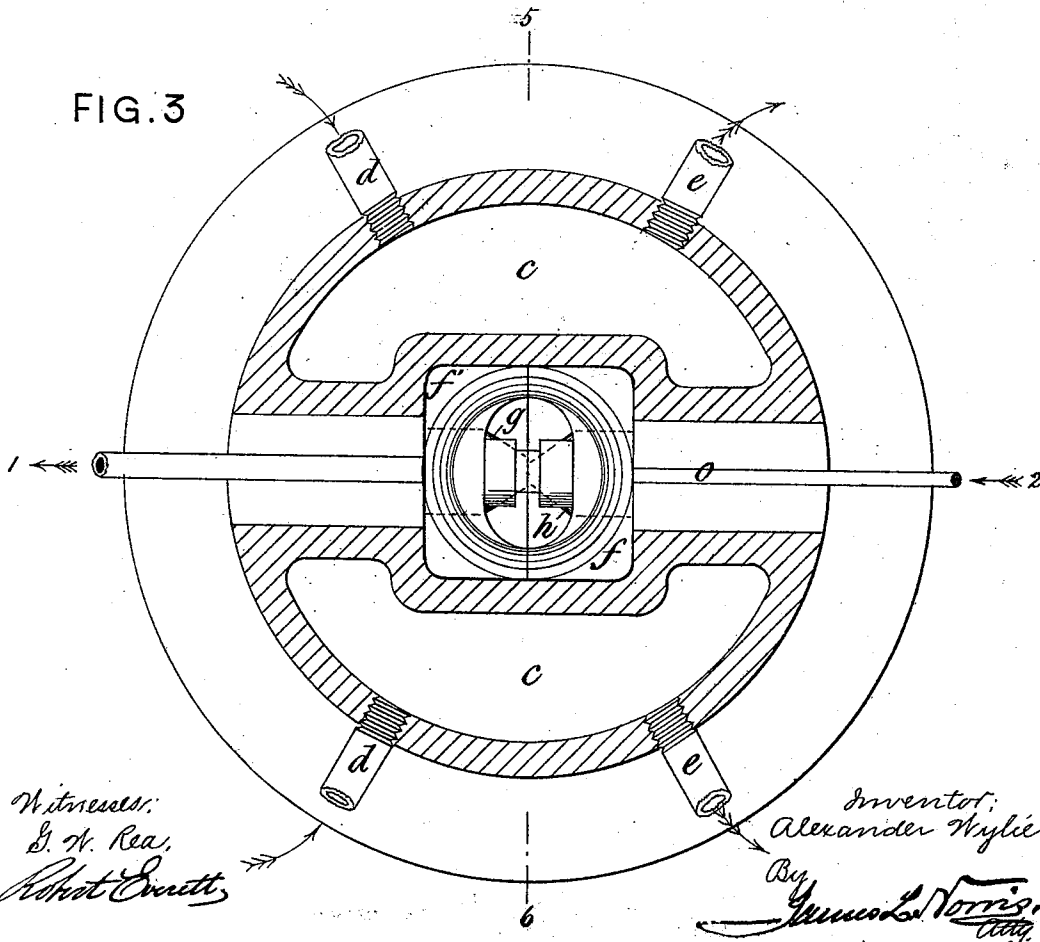


FIG. 3



(No Model.)

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FIG. 4

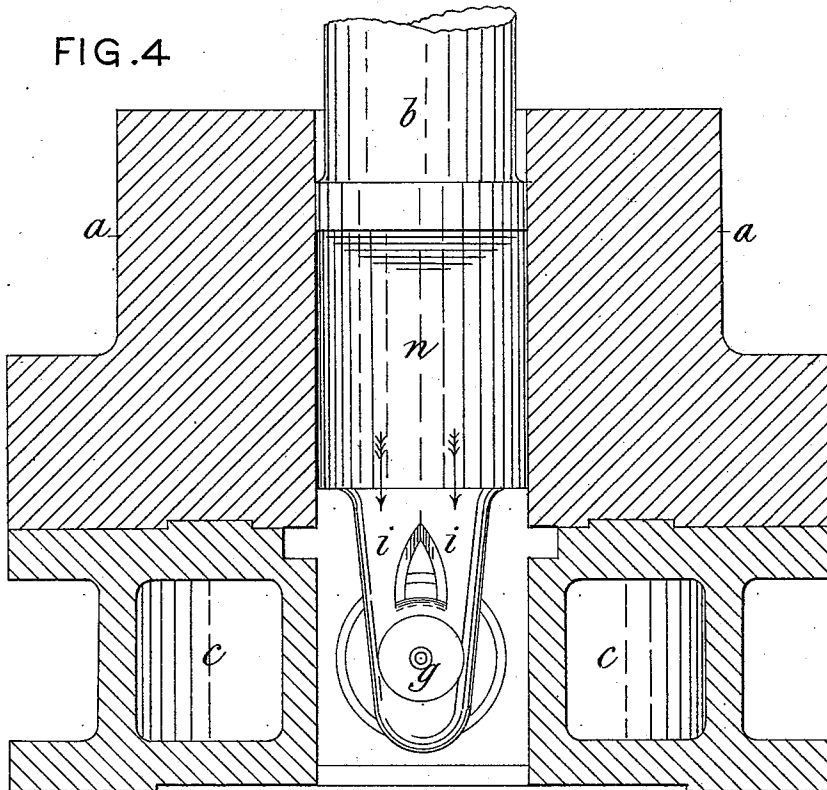
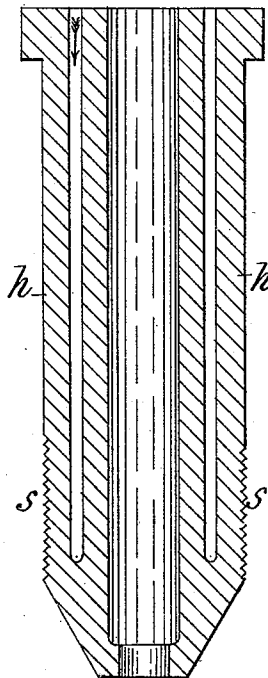


FIG. 5



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UNITED STATES PATENT OFFICE.

ALEXANDER WYLIE, OF JOHNSTONE, NEAR GLASGOW, SCOTLAND.

APPARATUS FOR MANUFACTURING PIPES, COVERING WIRE, &c.

SPECIFICATION forming part of Letters Patent No. 512,143, dated January 2, 1894.

Application filed December 29, 1892. Serial No. 456,653. (No model.) Patented in England November 29, 1888, No. 17,420, and in Germany November 5, 1889, No. 50,876.

To all whom it may concern:

Be it known that I, ALEXANDER WYLIE, a subject of the Queen of Great Britain, residing at Johnstone, near Glasgow, Scotland, have invented certain new and useful Improvements in Apparatus for the Manufacture of Metallic Pipes and Rods and for Covering Electric Telegraph and Telephone Cables and Wires, (for which I have obtained Letters Patent in Great Britain, No. 17,420, dated November 29, 1888, and in Germany, No. 50,876, dated November 5, 1889,) of which the following is a specification.

My invention relates to apparatus for the manufacture of metallic pipes and rods, and for covering electric telegraph and telephone cables and wires with lead or metallic compounds, and it consists in the novel construction and combination of parts hereinafter described and claimed, reference being made to the accompanying drawings, in which—

Figure 1 is an elevation (partly in section) showing the general arrangement of my hydraulic pipe press. Fig. 2 is an enlarged sectional elevation of the upper part of Fig. 1 on the line 1—2 of Fig. 3. Fig. 3 is a horizontal section on the line 3—4 of Fig. 2. Fig. 4 is a section on the line 5—6 of Fig. 3. Fig. 5 is an enlarged section of a die with water spaces for keeping it cool.

Referring to Fig. 1 l is the water cylinder, p is the ram, and a is the container, resting upon the bottom block c , the whole being sustained by the ram p and raised and lowered thereby. m is an inlet for water to the small ram w , within ram p and serving for the removal of the core die from the hollow block bottom. The head of the ram w is enlarged and fitted with a cup leather below the part shown broken off in the drawings. n is the lead or other metal or metallic compound under pressure. b is the fixed plunger.

Referring to Figs. 2, 3 and 4, a is the lead container. b is the fixed plunger which is used in a similar manner to that used in hydraulic pipe presses, as shown in Fig. 1. c is my improved hollow bottom block, having water passages as shown at d and e . The circulation of the water is kept up by a con-

tinuous supply of cold water either from a pump, accumulator, or other convenient supply. By this continuous supply of water the core seat and die box f, f' constructed in halves, are kept cold, thus preventing injury from heat to the cable being covered. g is the die which governs the thickness of the covering to the cable. The position of the core h for guiding the cable while being covered, is made adjustable by means of the screw thread in S, S , whereby the relative positions of the core h and die g can be regulated. $i i$ are the passages for the metal as indicated by the arrows, which passages are specially constructed to regulate the flow of lead to the core and die, the die being countersunk at the center both at the top and bottom, for regulating the lead and causing its equal flow under pressure. From these passages the metal is forced through the die g and caused to surround the cable o , as a solid drawn or seamless coating thereto.

I sometimes use a hollow or cellular core h constructed in one piece as shown in Fig. 5, a circulating stream of cold water being used therein, as indicated by the arrow to prevent overheating.

Having thus described my invention, what I claim is—

In machinery for covering electric telegraph and telephone cables with lead or other metal or metallic compounds, the combination with the container a and plunger b of the hollow or cellular bottom c having water chambers and passages for the inlet and outlet of cold water, the core seat and die box, f, f' , formed in two parts, for securing the die g in position, the die g regulating the external diameter of the covering of the cable, and the core seat and die box f, f' with countersunk cavities at the top and bottom for securing uniformity of flow and covering under pressure; substantially as and for the purposes described.

ALEXANDER WYLIE.

Witnesses:

WILLIAM KNOX,

ROBERT SCOTT,

Clerks to said Alexander Wylie.