

M. ALTMAN.
 APPARATUS FOR MAKING SEAMLESS TUBES.
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961,394.

Patented June 14, 1910.

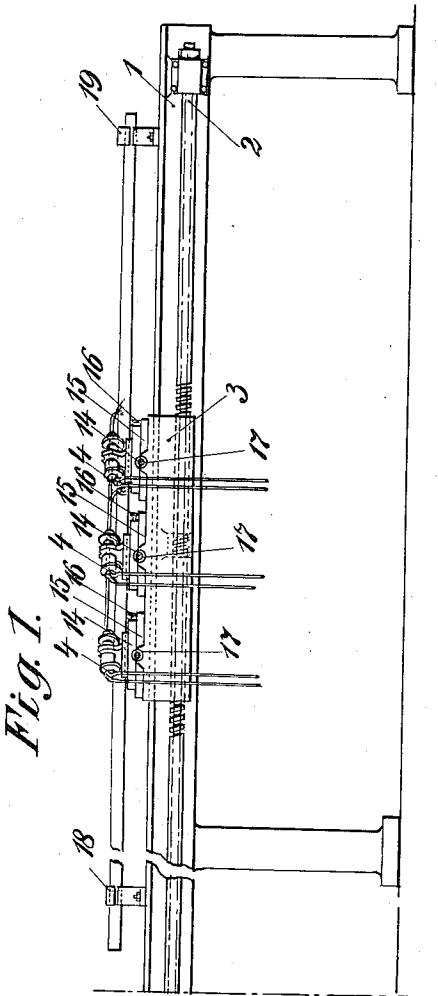


Fig. 1.

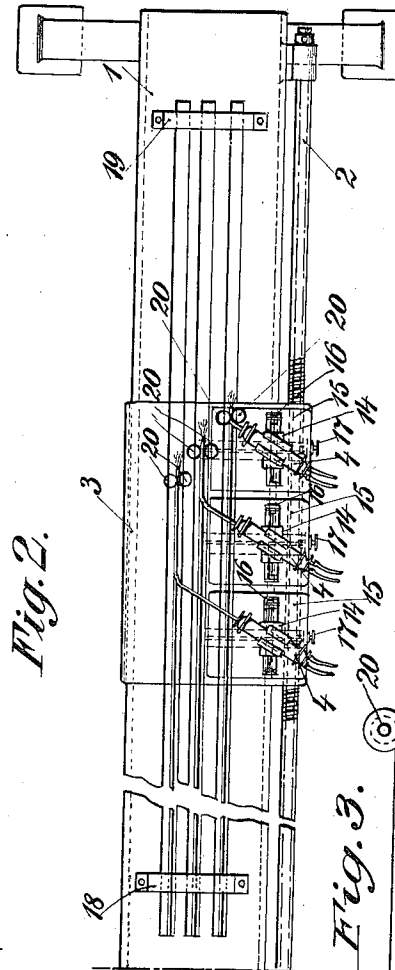


Fig. 2.

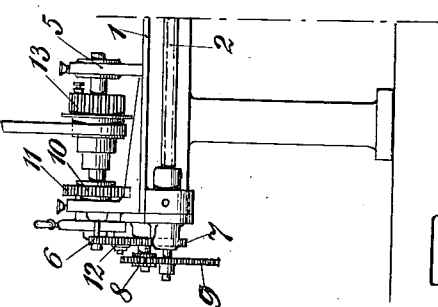
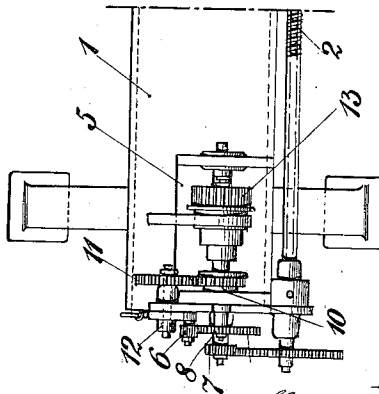


Fig. 3.



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UNITED STATES PATENT OFFICE.

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APPARATUS FOR MAKING SEAMLESS TUBES.

961,394.

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To all whom it may concern:

Be it known that I, MOÏSE ALTMAN, citizen of France, residing at Bagnolet, in the Department of the Seine and Republic of France, have invented certain new and useful Improvements in Apparatus for Making Seamless Tubes, of which the following is a full, clear, and exact description.

This invention has relation to apparatus for making seamless tubes and consists in the provision of novel means for supporting and securing the tubes to the bed of the apparatus and in the provision of a carriage carrying blow pipe heating means, the parts being located and combined as hereinafter described.

Figure 1 represents the machine in longitudinal elevation, and Fig. 2 is a corresponding plan view.

The machine comprises a bed 1, identical with those employed in parallel lathes, the leading screw 2 being utilized for effecting the displacement of the carriage 3 carrying the blowpipe or blowpipes 4. In the example here given three blanks have been represented under treatment, so that three blowpipes are also provided, but a larger or a smaller number might equally well be treated.

The gear for driving the shaft 2 is located at 5, and as in turning lathes comprises a fixed headstock with direct drive through the pinions and wheels 6, 7, 8 and 9 and reversed running by eccentric obtained by means of the pinions and wheels 10, 11 and 12 by unlocking the wheel 13. The advantage of this arrangement is that gearing up or down is greatly facilitated, so that the speed of rotation of the screw 2 or the displacement of the carriage 3 carrying the blowpipe 4 may readily be regulated in accordance with the work to be carried out. It also enables the work to be started at either end of the bed 1, so that it is not necessary to return the blowpipes 4 to their initial position. In such a case all that is necessary is to turn the blowpipes 4 in such a manner that their flames are still directed in the direction of the displacement of the carriage 3.

In order to render it possible to maintain the position of either of the blowpipes rela-

tively to the blanks, or rather the point of contact of the flame with the edges to be fused or assembled by fusion, and also so as to permit of correcting any irregularities in the interval separating the flame and the edges to be assembled, if necessary during the travel of the carriage, a device similar to that utilized for controlling the slide rests of lathes may be utilized or attached to the carriage 3. In this case each of the blowpipe holders should be mounted on two slides 14 and 15, of which 14 is displaceable longitudinally by means of the hand wheel 16, while 15 is displaceable transversely by means of the hand wheel 17.

Two supports 18 and 19 arranged at each extremity of the blanks to be produced may be employed for holding them in place during operations. If considered necessary, a variable number of these supports may be distributed throughout the length of the blanks to afford them adequate support when dealing with large sizes. These supports are bolted to the bed or connected therewith in some other appropriate manner. In addition to this, in order to hold the edges of the blank well together while it is being presented to the blowpipe flame, rollers 20 are arranged slightly behind this flame and move with the corresponding blowpipes and thus insure efficient operation. When producing blanks of great length, a number of blowpipes may be utilized for each blank; these blowpipes should be mounted on separate carriages, thus rendering it possible to fuse the blanks at several points and thereby increasing the rate of manufacture.

Claim.

An apparatus for making seamless tubes comprising a bed, a carriage mounted above and on the bed and movable along the same, supports mounted above and on the bed and on opposite sides of the carriage and a blow-pipe heating means carried by the carriage.

In witness whereof, I subscribe my signature, in presence of two witnesses.

MOÏSE ALTMAN.

Witnesses:

H. C. COXE,
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