Jan. 7, 1936. H. SEIFERTH 2,027,293

ROLLING METHOD

Filed June 12, 1931

Fig. 1

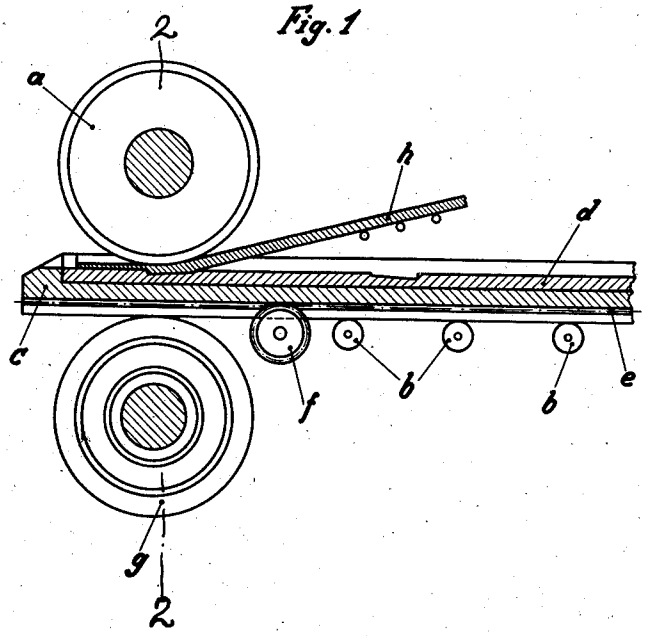
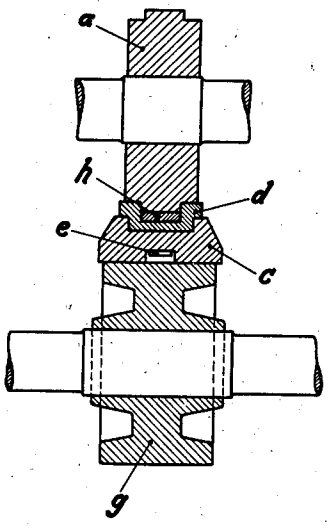


Fig. 2



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ROLLING METHOD

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7 Claims. (Cl. 80—60)

The invention relates to a method of rolling section bars of iron or other metals which have local raised portions or depressions varying in magnitude, transversely to the direction of rolling, such as ribs, serrations and the like in which the blank is passed between an upper roll and a table which acts as the under rolling tool and is provided with the local depressions and raised portions.

It has been found that when rolling section bars of the kind hereinbefore described at one rate of movement for roller and table, compressions, distortions and the like of the section iron occur between the ribs, serrations and the like, which affect the quality of the final product.

To obtain a perfect section bar the table which moves in a straight line is, according to the invention, given a greater speed than the peripheral speed of the roller.

It has been found for instance, that when rolling bars of iron with transverse profiling, if the table moves at a speed which is greater by 25% than the peripheral speed of the upper roller, the blank can be removed from the matrix of the table in perfect condition.

The greater velocity required is easily ascertainable experimentally with each of the metals which may form the blank.

In the accompanying drawing an apparatus is shown for carrying out the method according to the present application.

Figure 1 is partly a side elevation and partly a sectional view, and

Figure 2 is a cross sectional view of the apparatus along line 2—2 of Figure 1.

The table *c* is adapted to run on rollers *b* as regards the driven upper roller *a* the said table carrying the matrix *d* for the profile to be rolled out. The table carries on its underside the rack *e*. The ratchet wheel *f* adapted for the return movement engages in the said rack *e*. For obtaining a better support, the table bears on the bottom roller *g* which takes up the counter-pressure. The blank *h*, as shown in the drawing, is fed tangentially to the machining or operating position between upper roller *a* and matrix *d* and receives during the rolling out operation the profiling provided in the matrix. The table travels at a greater speed than the peripheral speed of the upper roller, the speed of the table varying according to the different metals and easily ascertainable by tests. With regard to iron, the speed of the table exceeds the surface or peripheral speed of the upper roller by about 25%. By operating the upper roller and the table of the apparatus at a varying speed, the blank is given a perfect profiling and can be removed from the matrix of the table in perfect condition.

I claim:

1. A method for producing, by rolling, metal bars with relatively high transverse ribs, which method consists in feeding the working material between a roll and a rolling table, moving said roll and table relatively to one another at a rate depending upon the metal to be worked, thereby stretching the material and pressing it into transverse grooves provided in the rolling table in order to form said transverse ribs without deformation.

2. A method for producing, by rolling, metal bars with relatively high transverse ribs, which method consists in feeding the working material between a rotated roll and a rolling table, moving said table with a higher linear speed than the peripheral speed of said roll at a rate of said linear speed depending upon the metal to be worked, thereby stretching the material and pressing it into transverse grooves provided in the rolling table in order to form said transverse ribs without deformation.

3. A method for producing, by rolling, metal profile bars with high transverse ribs, which method consists in feeding the working material between a roll and a rolling table in an oblique direction, relatively to the rolling table, moving said roll and rolling table relatively to one another at a rate depending upon the metal to be worked, thereby stretching the material and pressing it into transverse grooves provided in the rolling table in order to form said transverse ribs without deformation.

4. A method for producing, by rolling, metal profile bars with high transverse ribs, which method consists in feeding the working material between a rotated roll and a traversed rolling table in an oblique direction relatively to the rolling table, traversing said rolling table with a higher linear speed than the rotary speed of said roll, the rate of the said linear speed depending upon the metal to be worked, thereby stretching the material and pressing it into transverse grooves provided in the rolling table in order to form said transverse ribs without deformation.

5. A method for producing, by rolling, iron profile bars with high transverse ribs, which method consists in feeding the workpiece between a rotated roll and a table-like support, traversing said support with a linear speed about 25% higher than the rotary speed of the said roll, thereby stretching the material and pressing it into trans-

verse grooves provided in the rolling table in order to form said transverse ribs without deformation.

6. A method for producing, by rolling, metal profile bars with high transverse ribs in a single process which consists in feeding the work-piece between a rotated roll and a traversed table-like support in an oblique direction relatively to the said support by means of rollers, the said table-like support being in turn supported by rollers and traversed by gearing means with a linear speed higher than the rotary speed of the said roll, the rate of the said linear speed depending on the material to be worked, thereby stretching the material and pressing it into transverse grooves provided in the rolling table in order to form the transverse ribs without deformation.

7. A method for producing, by rolling, iron profile bars, with high transverse ribs in a single process which consists in feeding the work-piece between a rotated roll and a traversed table-like support in an oblique direction relatively to the said support by means of rollers, the said table-like support being in turn supported by rollers and traversed by gearing means with a linear speed about 25% higher than the peripheral speed of the said roll, thereby stretching the material and pressing it into transverse grooves provided in the rolling table in order to form said transverse ribs without deformation.

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