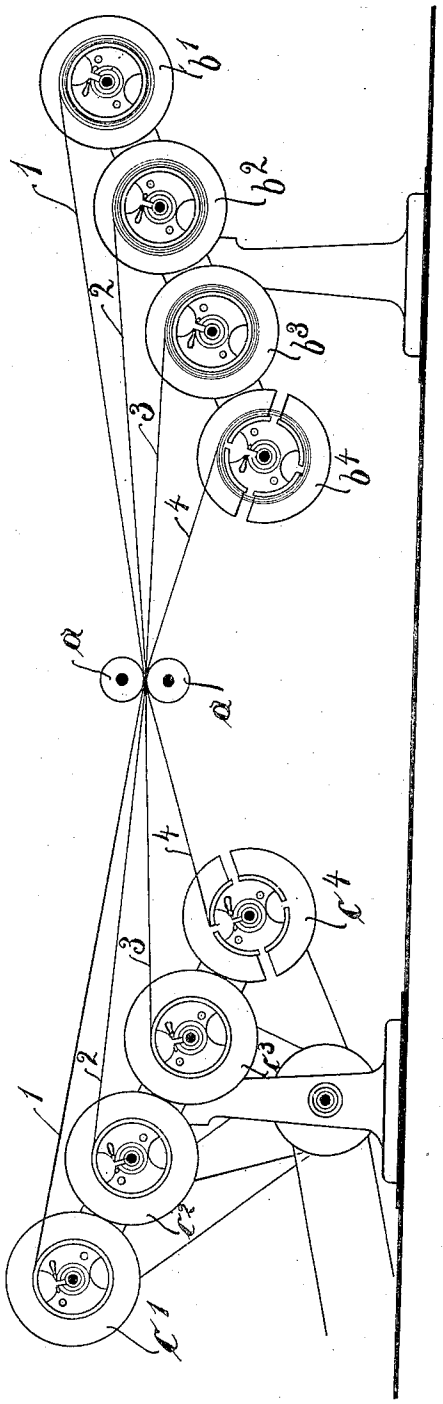
C. RÖTZEL.

METHOD OF ROLLING IRON.

APPLICATION FILED JUNE 6, 1919.

1,380,254.

Patented May 31, 1921.



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METHOD OF ROLLING IRON.

1,380,254. Specification of Letters Patent. Patented May 31, 1921.

Application filed June 6, 1919. Serial No. 302,363.

To all whom it may concern:

Be it known that I, CHRISTIAN RÖTZEL, a subject of the King of Prussia, residing at Dusseldorf, Richrath Bezirk, Germany, have invented certain new and useful Improvements in Methods of Rolling Iron, of which the following is a specification.

My invention relates to an improved method of rolling iron, and especially of rolling hoop- or ribbon-iron in the cold state.

It is known from the fine-plate-rolling manufactury, that, in rolling hoop- or ribbon-iron in the cold state, the following advantages are obtained, if a plurality of blooms or bars, laid one over another, are made to run through the rollers, viz:

1, the hoops or ribbons may be rolled to a thinner size, than if but a single bloom or bar is passed at a time through the rollers.

2, it has been proved by experiments, that no more power is required to roll a plurality of blooms or ribbons, than for rolling but a single bloom or ribbon;

3, the amount of work performed by a set of rollers is increased by the number of blooms or ribbons rolled at a time;

4, a considerable amount of labor is economized by rolling a number of blooms or ribbons at a time.

According to my present invention the favorable result obtained by rolling a plurality of blooms or ribbons at a time is improved by performing the rolling method in such a manner, that both surfaces of the rolled goods are brought into immediate contact with the pair of rollers employed, otherwise the quality of rolling will not be uniform.

In rolling the blooms or ribbons according to my invention, placed one over another, it is not required to bring the two surfaces of each ribbon more than once into contact with the roller.

In the accompanying sheet of drawings I have shown the mode of rolling ribbons or hoops according to my invention.

a, a, are the two rollers between which the plurality of blooms or ribbons are made to pass: the number of ribbons or hoops, for instance, is assumed to be four, designated 1, 2, 3, 4, laid one over another. It will be seen, that in the first passage through the rollers a, a, the upper surface of the uppermost sheet 1 and the lower surface of the lowermost sheet 4 will come into immediate contact with the rollers a, a. For the second passage, then, the surfaces are to be changed. The mode of changing, preferably, will be this, to simply turn the uppermost and the lowermost ribbon, 1 and 4, and to again run the four hoops or ribbons jointly through the pair of rollers a, a. Then, the third passage is made by placing the two hoops 1 and 4 between the two other hoops 2 and 3 and making the whole pass jointly for a third time through the pair of rollers a, a, thus causing the upper surface of the uppermost hoop and the lower surface of the lowermost hoop to come into immediate contact with the working pair of rollers, as before.

After that, the fourth passage is made by turning the uppermost and the lowermost hoop, formerly designated 2 and 3, in such a manner, to bring their opposite surfaces into contact with the said rollers. The four passages of the joined hoops, accordingly, will be sufficient to perform the process of my invention. If any further passages are desired or found necessary, the changing of the places of the four hoops in the series is not further required, but it may be done nevertheless. The means and mode of changing the surfaces of the hoops to be rolled may be varied, as also the number of hoops to be passed at a time. It may be mentioned, still, that as many reels b^1, b^2, b^3, b^4 ought to be employed for feeding the single hoops or ribbons, and as many reels c^1, c^2, c^3, c^4 for receiving the rolled hoops, as the number of blooms that are to pass at a time.

The new and improved method of rolling is particularly useful in being applied for manufacturing hoop-iron for packing purposes and the like, said hoop-iron being required in great quantities and the quality of workmanship to be bestowed to it not being particularly nice.

I claim as my invention:

An improved method of rolling hoop or ribbon iron, which consists in passing a plurality of separated blooms or bars in a cold

state, laid one over another, at one time through a pair of rollers and repeating said passage in a cold state as often as required to bring the upper and lower surface of each hoop at least once into immediate contact with one of the rollers of the pair, and changing the surfaces at each passage.

In testimony whereof I have affixed my signature in presence of two witnesses.

CHRISTIAN RÖTZEL.

Witnesses:
JOSEF E. WATSAK,
LEO AUGUST KRAHE.