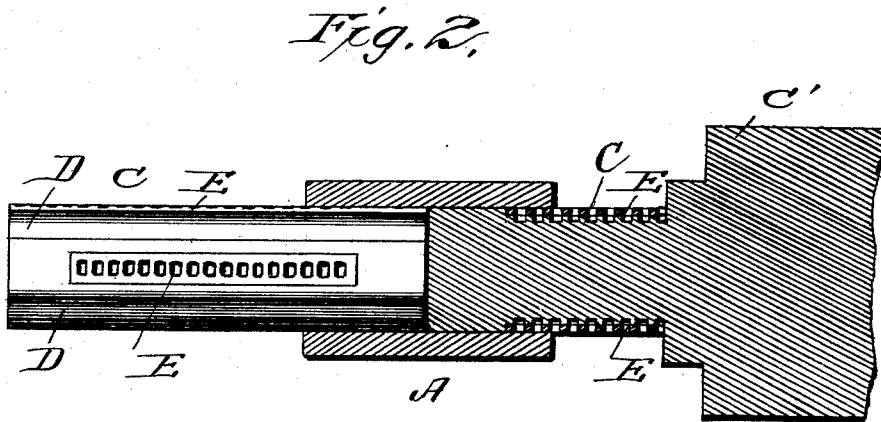
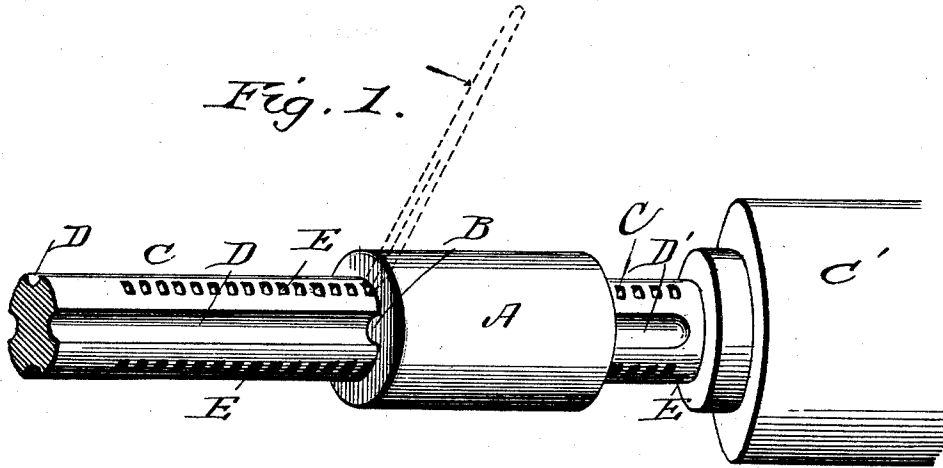


(No Model.)

S. M. GUSS.
COUPLING DEVICE FOR ROLLING MILLS.

No. 524,715.

Patented Aug. 21, 1894.



Witnesses
James H. Keider
Geo. R. Hamlin

Inventor
Samuel M. Guss
Philo W. Goss
Associate Attorney.

UNITED STATES PATENT OFFICE.

SAMUEL M. GUSS, OF HARRISBURG, PENNSYLVANIA.

COUPLING DEVICE FOR ROLLING-MILLS.

SPECIFICATION forming part of Letters Patent No. 524,715, dated August 21, 1894.

Application filed March 24, 1894. Serial No. 504,979. (No model.)

To all whom it may concern:

Be it known that I, SAMUEL M. GUSS, a citizen of the United States, residing at Harrisburg, in the county of Dauphin and State of Pennsylvania, have invented certain new and useful Improvements in Coupling-Spindles; and I do declare the following to be a full, clear, and exact description of the invention, such as will enable others skilled in the art to which it appertains to make and use the same, reference being had to the accompanying drawings, and to the letters of reference marked thereon, which form a part of this specification.

This invention relates to certain new and useful improvements in coupling spindles, and more especially for such as are used in rolling mills.

As heretofore constructed when it became necessary or desirable to connect or disconnect spindles, it was a matter of a good deal of trouble, and of considerable time.

The object I now have in view is to construct the coupling spindle, over the ends of which the coupling boxes fit, in such a manner that the connection of box and spindle will be made in a simple and easy manner, and, moreover, so that a great saving of time will be effected in the operation.

In the accompanying drawings forming a part hereof, I have shown two ways in which my invention may be constructed.

Figure 1, is a perspective view of two spindles one having a roll thereon and a coupling connecting them, showing the indentations upon the spindles cast integrally therewith, and Fig. 2, is a horizontal sectional view thereof, showing a depression or recess cast in the spindles and a block or plate having indentations cast in it, secured in said recess.

The reference letter A indicates the coupling, made of any suitable material, and provided with a series of ribs B, cast integrally therewith and extending in a longitudinal direction. This coupling is made to fit over the adjacent ends of similarly constructed spindles C and C the latter having a roll C' thereon, and to hold them in union, said spindles being provided each with a series of flutes D and D' cast therein, and between said flutes are provided indentations E, extending from

a point near the end of the spindle throughout its entire length as is or may be the case with short spindles, that is to say, spindles of a length under five feet, or these indentations may extend a distance of only two or three feet, say, from either end toward each other, where the length of the spindle is eight feet or over. These indentations are preferably equi-distant from each other, and of a size to readily admit of the insertion of a pinch bar, such as is ordinarily or commonly used, by means of which the coupling is easily and speedily pushed along on the spindle.

It may be found in some instances more desirable to cast the spindle with a groove or depression and to insert therein a plate or block provided with indentations, as more clearly shown in Fig. 2, and in this way it is possible to make the block of a metal different from that of the spindle, and one more capable of standing severe strain.

I show the indentations cast in the spindle between each of the flutes, but it may be found necessary to have a greater or less number of them, and they may be directly and oppositely placed in relation to each other, or otherwise according to the purposes for which the spindle is to be used.

I have shown in the accompanying drawings, one instance in which this device may be constructed and used, but it is obvious that it may be somewhat differently constructed by a mechanic skilled in the art to which this invention appertains, for instance teeth or notches may be made instead of indentations, and I do not wish therefore to be understood as limiting myself to the exact construction herein shown and described.

Having thus fully described my invention, what I claim as new, and desire to secure by Letters Patent, is—

1. A roller for rolling or other mills, provided with a spindle having a series of notches or indentations, in combination with a box or coupling which receives said spindle, as and for the purpose set forth.

2. The combination with a coupling, of spindles fitting therein, said spindles being provided with indentations or teeth near either end thereof, substantially as described.

3. The combination of a coupling having

- ribs cast interiorly thereon, with spindles having corresponding flutes therein, and a series of indentations or teeth between the flutes, substantially as described.
- 5 4. The combination with a coupling having ribs cast interiorly thereon of spindles having corresponding flutes therein, and a series of indentations or teeth between the flutes and oppositely disposed to each other on the
10 spindle, substantially as described.
5. The combination with a coupling having ribs interiorly cast thereon of spindles having corresponding flutes cast therein and a series of indentations or teeth cast integrally therewith, between the flutes, substantially as described. 15

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

SAMUEL M. GUSS.

Witnesses:

SAML. E. RUPP,
S. W. FLEMING.