No. 648,089. Patented Apr. 24, 1900.

F. G. TALLERDAY.

BENDING ROLL.

(Application filed Oct. 11, 1899.)

(No Model.)

Fig. 1

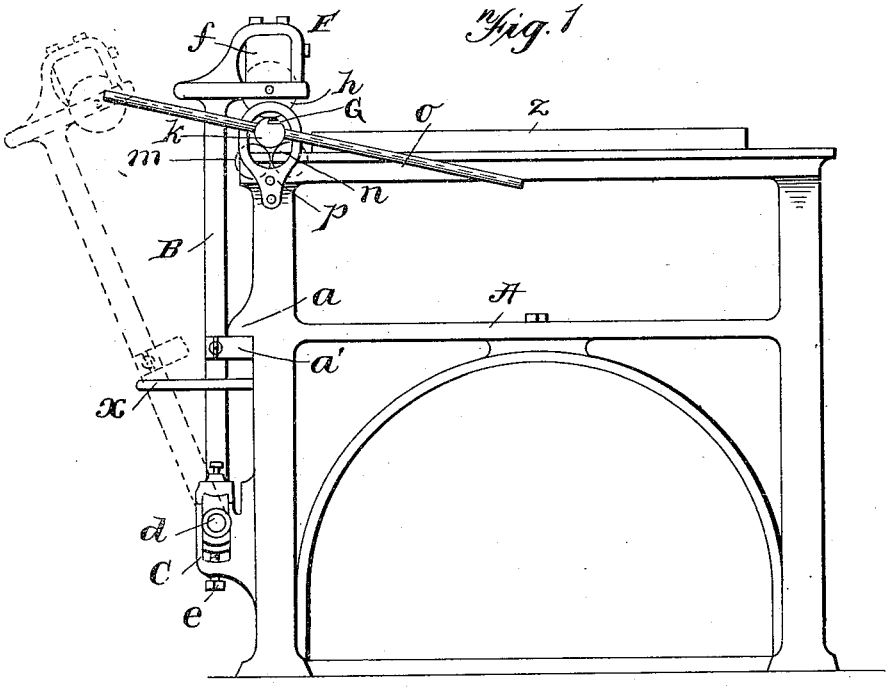


Fig. 2.

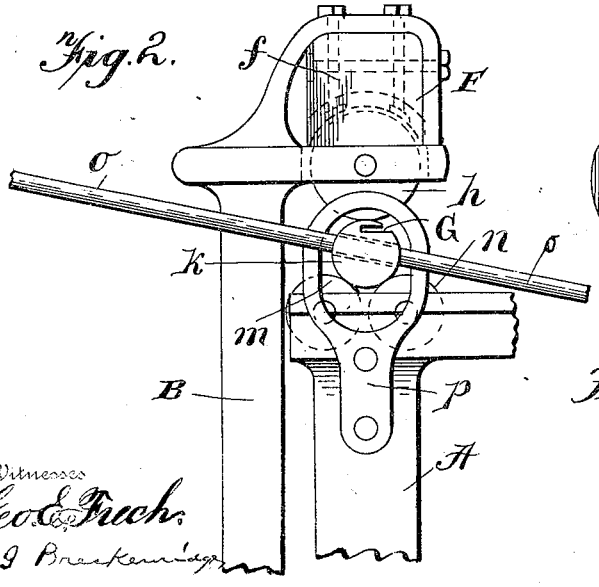
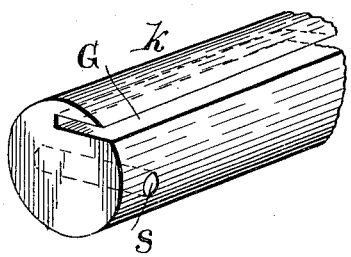


Fig. 3.



Witnesses
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UNITED STATES PATENT OFFICE.

FRANKLIN G. TALLERDAY, OF WATERLOO, IOWA.

BENDING-ROLL.

SPECIFICATION forming part of Letters Patent No. 648,089, dated April 24, 1900.

Application filed October 11, 1899. Serial No. 733,335. (No model.)

To all whom it may concern:

Be it known that I, FRANKLIN G. TALLERDAY, a citizen of the United States of America, and a resident of Waterloo, Black Hawk county, Iowa, have invented certain new and useful Improvements in Bending-Rolls, of which the following is a specification.

My invention relates to improvements in rolls for flanging lock-seams and forming pipe; and the object of my improvement is to provide means for simultaneously rolling sheets of metal and forming flanges thereon for lock-seaming. I attain this object by the mechanism illustrated in the accompanying drawings, in which—

Figure 1 is a side elevation of the entire machine. Fig. 2 is a side elevation of that part of the machine which contains the bending-roll, and Fig. 3 is a perspective view of a portion of the bending-roll.

Similar letters refer to similar parts throughout the several views.

The bending-roll *k* is represented as superimposed upon the bearing-rolls *m* and *n*, having each end passed through the retaining devices *p p*.

In the drawings in Fig. 1 but one side of the machine is shown, as the opposite side is identical in construction, and for the purposes of description when letters of designation are repeated it is to refer, respectively, to these similar parts.

The retaining devices *p p* have a sufficient interior diameter to permit of the use of different sizes of bending-rolls.

o o represent a lever passed through the hole *s* in the end of the bending-roll *k* for the purpose of being used in rotating it by hand-power.

h represents a pressure-roll contained within a frame F and provided with bearings and braces at *f*.

The frame F is supported upon the vertical posts B B and strengthened by means of horizontal beams at *f* and *a'*.

The lower ends of the supports B B are attached to the horizontal shaft *d* by means of clamps or other suitable fastening devices.

The shaft *d* works within bearings in the post-hanger C and may be vertically adjusted therein by means of the bolt *e*.

The post-hangers may be constructed to move within vertical slots on the frame, if so desired.

The lugs *a' a'* on the supporting-posts B B are adapted to engage with the lugs *a a* on the frame of the machine when the pressure-roll *h* is thrown into position for use and operate to relieve the strain thus brought upon the pressure-roll.

When not in use or when it is found necessary to shift the bending-roll *k*, the frame F is thrown back until arrested by the clutch *x*.

The lugs *a' a'* are adapted to be vertically adjusted upon the posts B B by means of set-screws or other fastening devices inserted into openings in said posts, so as to keep said lugs always in engagement with the lugs *a a* when the shaft *d* is raised or lowered within the post-hangers.

As shown by Fig. 1, the frame A forms a support for the table *z*.

The bending-roll *k* is provided with a narrow straight groove cut deeply into its surface and running longitudinally parallel with its axis, as shown in Fig. 3.

If desired, the retaining devices at *p p*, the lugs *a' a'* and *a a*, and the table *z* may be omitted without changing the principle involved in my invention.

The swing-frame B F may be pivoted, swung, or raised in any other suitable way other than described.

In operation the bending-roll *k* is adjusted with its longitudinal groove G toward the front of the machine and the pressure-roll *h* is brought into position over it. When one edge of a sheet of metal has been inserted into the groove G, the bending-roll *k* is rotated until the sheet is brought into contact with the bearing-roll *n*, which operation forms a flange upon the sheet. To convert the sheet into a pipe or into cylindrical shape ready for lock-seaming, the sheet is reversed and the edge opposite to that already flanged is inserted into the groove G and the bending-roll *k* is rotated through one revolution, which operation not only rolls the sheet into cylindrical form, but also flanges the edge, and when the cylinder is drawn off the roll the two flanges may be easily lock-seamed.

What I claim as my invention, and desire to secure by Letters Patent, is—

1. In a machine for flanging sheet metal

for lock-seams and forming pipe, the longitudinally-grooved roll k, in combination with the bearing-rolls m and n, the pressure-roll h and swinging beam B F, all substantially as shown and described.

2. In a machine for flanging sheet metal for lock-seams and forming pipe, the longitudinally-grooved roll k in combination with the bearing-rolls m and n, retaining devices p p, pressure-roll h, swinging frame B F, adjustable lugs a' a', adjustable post-hangers C C, shaft d, and table A z provided with lugs a a, all substantially as shown and described.

Signed by me at Waterloo, Iowa, this 22d day of September, 1899.

FRANKLIN G. TALLERDAY.

Witnesses:
T. M. EVANS,
CHAS. W. ILLINGWORTH.