(No Model.)

W. BANSEN.

MACHINE FOR BUNDLING HOOP IRON.

No. 383,686. Patented May 29, 1888.

Fig. 1.

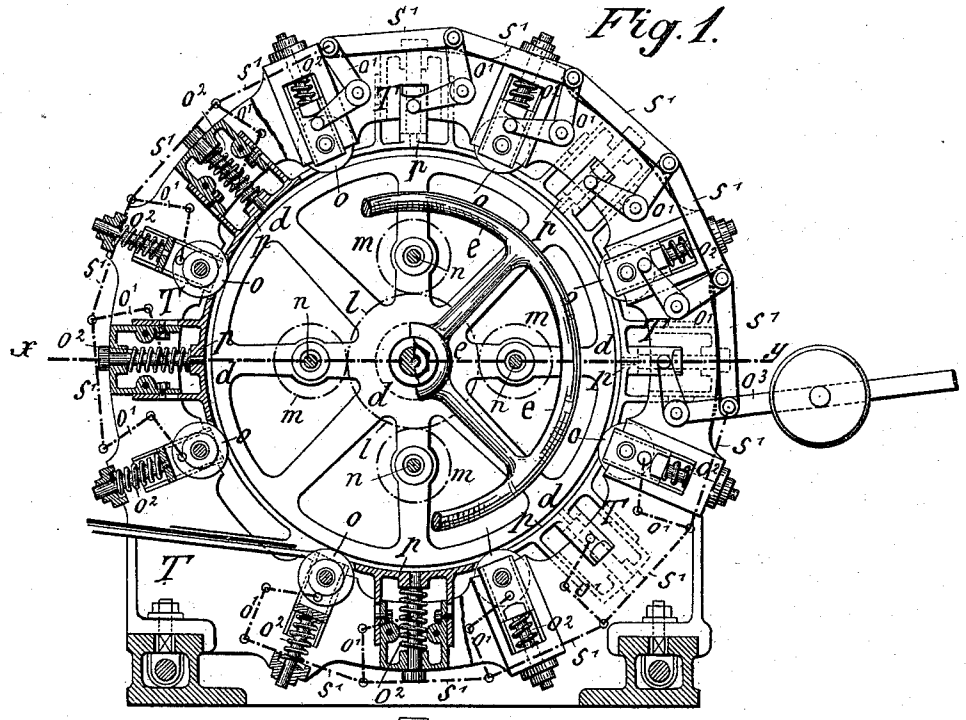
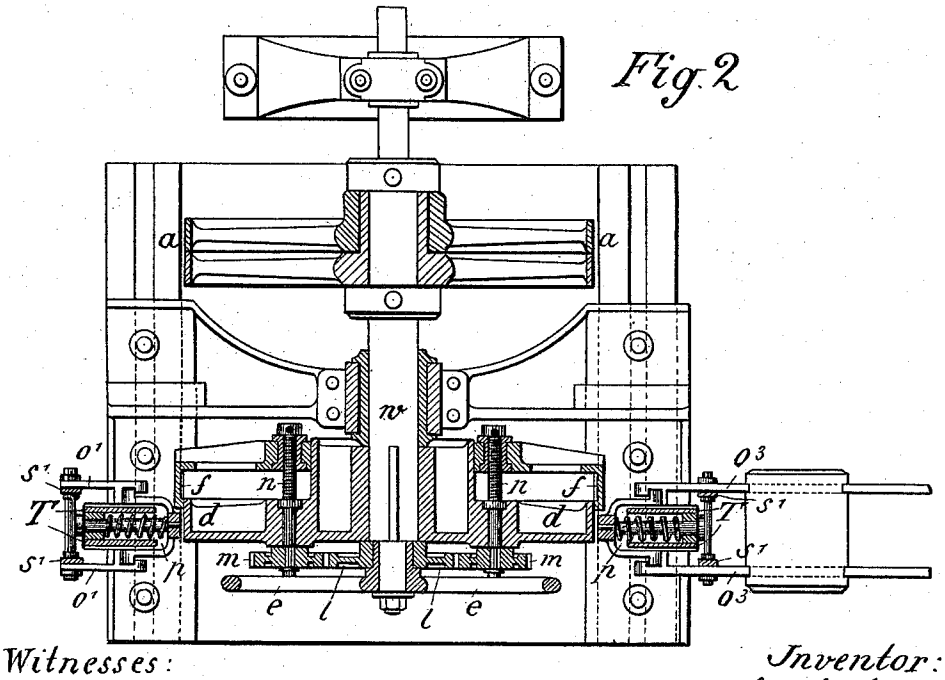


Fig. 2



Witnesses:
Thomas Tinnie.
A. Wiebking.

Inventor:
Wilhelm Bansen.
by
Albert L. Atwater.
Attorneys.

N. PETERS. Photo-Lithographer, Washington, D. C.

UNITED STATES PATENT OFFICE.

WILHELM BANSEN, OF KATTOWITZ, PRUSSIA, GERMANY.

MACHINE FOR BUNDLING HOOP-IRON.

SPECIFICATION forming part of Letters Patent No. 383,686, dated May 29, 1888.

Application filed March 16, 1888. Serial No. 267,467. (No model.) Patented in Germany June 19, 1887, No. 43,056; in England July 4, 1887, No. 9,447; in Belgium July 4, 1887, No. 78,058; in France July 4, 1887, No. 184,397, and in Luxemburg January 12, 1888, No. 943.

To all whom it may concern:

Be it known that I, WILHELM BANSEN, a subject of the King of Prussia, German Emperor, residing at Kattowitz, Upper Silesia, Kingdom of Prussia, German Empire, engineer, have invented new and useful Improvements in Machines for Bundling Hoop-Iron, (for which I have obtained Letters Patent in Germany, No. 43,056, dated June 19, 1887; England, No. 9,447, dated July 4, 1887; Belgium, No. 78,058, dated July 4, 1887; France, No. 184,397, dated July 4, 1887, and Luxemburg, No. 943, dated January 12, 1888,) of which the following is a specification.

My invention relates to improvements in machines for bundling hoop-iron in which a drum is made to slide over another drum on which the hoop-iron is wound after coming from the rolling-mill, and by means of a hand-wheel and screws the first-named drum is made to slide over the winding-drum and force the roll of hoop-iron off, after which it is made into the proper form ready for the market. I attain this object by the mechanism illustrated in the accompanying drawings, in which—

Figure 1 is a vertical part section of the entire machine. Fig. 2 is a horizontal section of the machine through the line *x y* of Fig. 1.

Similar letters refer to similar parts throughout the two views.

The winding-drum *d* is fixed fast on the shaft *w*, by which it is made to revolve by means of a belt on the pulley *a*, and carries with it the drum *f* and the hand-wheel *e*. The drum *f* is connected to the winding-drum by means of screwed spindles *n n*, which serve to draw the pushing-off drum *f* over the winding-drum *d*, which will be afterward explained.

The winding-drum *d* revolves within the frame-work T, which is provided with a number of rollers, *o o o o o*, and guides *p p p*, which serve to hold the hoop-iron on the drum and to guide it in an even roll. These rollers and guides are pressed against the surface of the winding-drum by means of springs o^2 o^2 o^2, so as to keep a constant pressure on the hoop-iron, and so prevent the hoop-iron from slipping on the drum *d*. These rollers and guides are each provided with crank-levers *o' o'*, and these levers are connected to each other and to the lever o^3 by the links *s'*, so that by pressing the lever o^3 down by hand the pressure of the rollers and guides on the surface of the drum *d* may be relaxed.

When there is a sufficient quantity of hoop-iron rolled on the drum *d* and it is required to remove it, the drum is stopped and rollers *o o* and guides *p* released and the hand-wheel *e* turned, to which is fastened the cog-wheel *l*, which works into the cog-wheels *m m*, and the screwed spindles *n n* are made to revolve, and as they screw into the drum *f* so is the drum *f* drawn over the drum *d*, and so forces the roll of hoop-iron off, which is afterward formed into an oblong bundle ready for the market.

Having thus fully described my invention, what I claim, and desire to secure by Letters Patent in the United States, is—

1. In machines for bundling hoop-iron, the winding-drum *d*, in combination with the shoving-off drum *f* and with the screwed spindles *n n n*, for the purpose as described.

2. In machines for bundling hoop-iron, the drums *d* and *f* and screwed spindles *n n n n*, in combination with the frame-work T, provided with rollers *o o o o* and guides *p p p*, for the purpose as described.

3. In machines for bundling hoop-iron, the winding-drum *d*, in combination with the shoving-off drum *f*, the screwed spindles *n n n*, and the frame-work T, provided with rollers *o o* and guides *p p*, arranged elastically to the frame, with the levers *o' o' o' o'*, connected by links *s'*, for the purpose as described.

In witness whereof I have hereunto set my hand in presence of two witnesses.

WILHELM BANSEN.

Witnesses:
SCHÜLNER,
B. ROI.