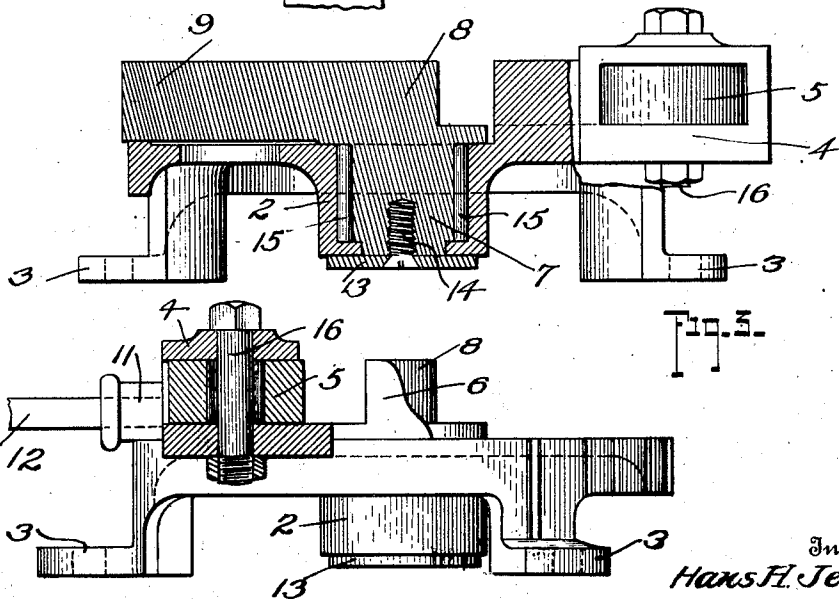
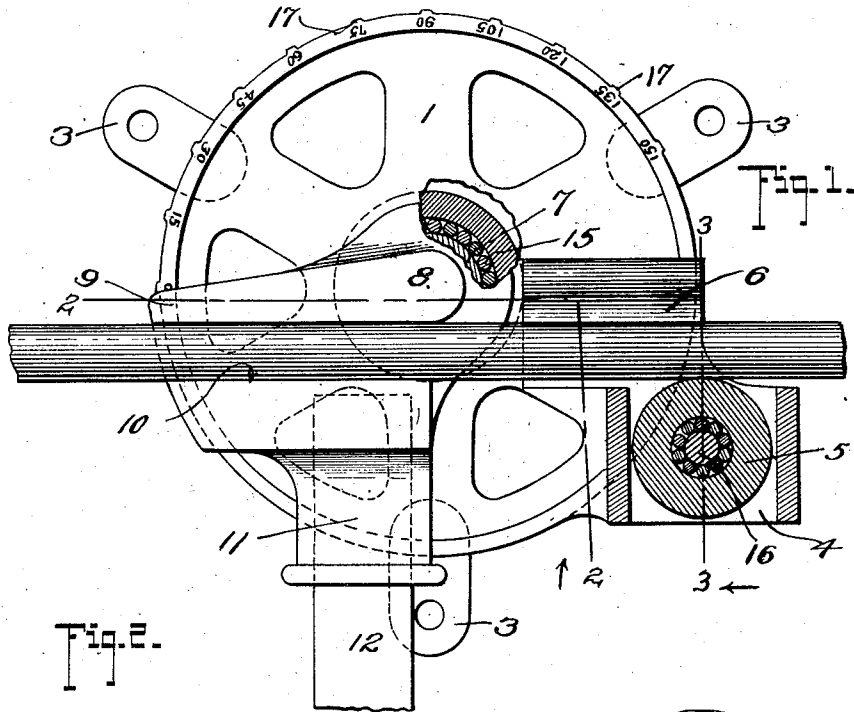


H. H. JENSEN.
 ROD BENDING MACHINE.
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1,021,932.

Patented Apr. 2, 1912.



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HANS HOLDEN JENSEN, OF MILWAUKEE, WISCONSIN.

ROD-BENDING MACHINE.

1,021,932.

Specification of Letters Patent.

Patented Apr. 2, 1912.

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To all whom it may concern:

Be it known that I, HANS HOLDEN JENSEN, a citizen of the United States, residing at Milwaukee, in the county of Milwaukee and State of Wisconsin, have invented certain new and useful Improvements in Rod-Bending Machines, of which the following is a specification.

The present invention appertains to machines of the type designed particularly for bending rods, hollow tubing, pipes, etc., and resides essentially in the construction of a machine of this type which is exceedingly simple in that it necessitates the employment of very few parts; may be readily operated by reason of the mounting of the rod gripping jaws which cooperate with the operating lever, and which comprises holding means for the rod or work, engaging the same at the free portion thereof and preventing buckling or bending other than that required by the actuation of the bending member.

For a full understanding of the present invention, reference is to be had to the following description and to the accompanying drawings, in which—

Figure 1 is a plan view partly broken away to show the mounting of the bending member more fully, as well as the arrangement of the bearing roller. Fig. 2 is a sectional view taken about on the line 2—2 of Fig. 1. Fig. 3 is a section taken about on the line 3—3 of Fig. 1.

Throughout the following detail description and on the several figures of the drawings, similar parts are referred to by like reference characters.

A machine embodying the essential features of this invention includes primarily a suitable base 1 preferably of circular form and provided at its central portion with a depending bearing 2. At suitable points near the outermost portions of the base are formed the integral apertured attaching lugs 3 through which bolts or other fastenings may be passed in order to secure the base to a suitable support.

Preferably formed integrally with the base and projecting laterally therefrom is a hollow bracket 4 in which is mounted the horizontally arranged bearing roller 5, the periphery of which is adapted to project slightly from the inner open end portion of said bracket. The roller 5 is intended to cooperate with a work engaging and guid-

ing member 6 also preferably integral with the base and projecting upwardly therefrom in spaced relation to the members 4 and 5. The member 6 is elongated so as to have a firm bearing against the rod, pipe, or other work when the latter is arranged between the parts 5 and 6 preparatory to the bending operation, and said member 6 is disposed radially with respect to the bearing 2 previously mentioned.

Mounted in the bearing 2 is the journal 7 of the bending member 8, the latter being formed with radially extending spaced jaws 9 and 10. Integral with the jaw 10 and extending substantially at a right angle to both jaws aforesaid is the lever arm 11, the latter being virtually a socket in which the inner end of a lever 12 is adapted to be received.

It will be noted that the space between the jaws 9 and 10 is in alinement with the space between the members 5 and 6, when the parts of the machine are arranged in the positions shown in Fig. 1, and the bending member 8 is prevented from displacement from the base by means of a plate 13 which closes the lower open end portion of the bearing 2 and is attached to the journal 7 by a screw or similar fastening 14. Roller bearings are preferably interposed between the parts 2 and 7, as shown at 15, and likewise between the axis 16 and roller 5 mounted thereon, said axis being preferably in the form of a bolt passing vertically through the bracket 4.

It will be apparent that, in the use of the machine above described, a rod or other work to be operated on will be arranged so as to rest in the spaces between the jaws 9 and 10 and the members 5 and 6, and by swinging the lever 12 in a direction away from the member 5, the bending member 8 will be rotated, pulling the work with it and bending the same in the desired manner.

In order that the bending of the rods, pipes, etc., may be accurately done, it is preferred that the peripheral portion of the base 1 be provided with graduations, as shown at 17, indicative of degrees of a predetermined arc, with which graduations the outer side of the jaw 9 is adapted to register in a manner readily visible to the operator.

The arrangement of the lever 12 in relation to the bending member 8 is advanta-

geous because the work as it is bent is in advance of the operator some distance and not likely to interfere with him in the bending operation. Furthermore, while the pipe or rod is being bent into shape, the free end or that portion cooperating with the members 5 and 6 is held straight by the bearing of the member 6 thereagainst and thus prevented from a buckling action not desired. The movement of the work is facilitated furthermore by the roller bearing 5 operating in contact with the same at one side.

It is to be noted that with the machine above described, it is possible to decrease the angle of bend in the work by reversing the direction of movement of the operating lever 12, should the operator accidentally bend a rod, or the like to a greater angle than necessary or desirable.

Having thus described the invention, what is claimed as new is:

A bending machine of the class described comprising a base formed with a central bearing and provided with an off-standing

bracket, a bearing roller mounted on said bracket, a work engaging and guiding member spaced from said bearing roller and arranged radially with respect to the first mentioned central bearing, a bending member provided with a journal received in the central bearing aforesaid and formed with spaced jaws projecting toward the outer portion of the base and arranged so that the space therebetween is normally in alignment with the space between the work engaging and guiding member and its associated bearing roller, one of the jaws of the bending member being formed with a radially projecting lever arm arranged at an angle to the jaws, and a member cooperating with the journal and bearing in which it is mounted to prevent displacement of the bending member from the base.

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

HANS HOLDEN JENSEN.

Witnesses:

PHILIP KOEHRING,
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