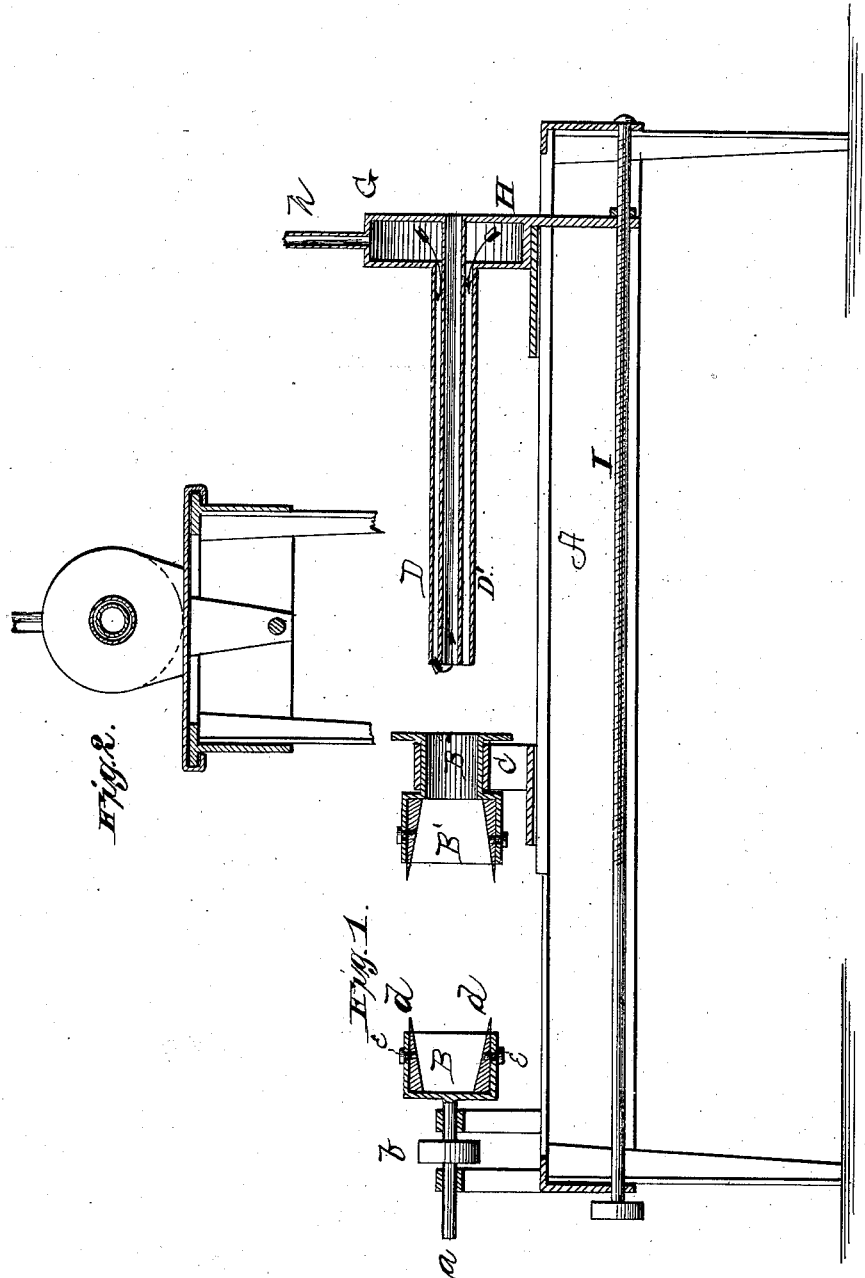


W. C. BARKER.
MACHINES FOR BORING PUMP-LOGS.

No. 194,638.

Patented Aug. 28, 1877.



WITNESSES
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UNITED STATES PATENT OFFICE.

WILLIAM C. BARKER, OF HORSEHEADS, NEW YORK.

IMPROVEMENT IN MACHINES FOR BORING PUMP-LOGS.

Specification forming part of Letters Patent No. 194,638, dated August 28, 1877; application filed August 17, 1877.

To all whom it may concern:

Be it known that I, WILLIAM C. BARKER, of Horseheads, in the county of Chemung, and in the State of New York, have invented certain new and useful Improvements in Device for Boring Pump-Stocks; and do hereby declare that the following is a full, clear, and exact description thereof, reference being had to the accompanying drawings, and to the letters of reference marked thereon, making a part of this specification.

The nature of my invention consists in the construction and arrangement of a machine for boring logs for water-tubing and pump-stocks, as will be hereinafter more fully set forth.

In order to enable others skilled in the art to which my invention appertain to make and use the same, I will now proceed to describe its construction and operation, referring to the annexed drawing, in which—

Figure 1 is a longitudinal section of my machine. Fig. 2 is a transverse vertical section of the same.

A represents the frame of my machine, at one end of which, in suitable bearings, is placed a shaft, *a*, having a pulley, *b*, secured on it for the application of a belt to rotate the shaft. On the inner end of the shaft *a* is secured a hollow square head, B, for the insertion of one end of the log. The other end of the log is inserted in a similar head, B¹, having a hollow journal, B², in a carriage, C, movable back and forth on the frame. Within the hollow heads B B¹ are placed wedge-shaped wooden blocks *d d*, fastened by bolts *e e*, or other suitable means, and having their smaller ends projecting beyond the heads, as shown. These wedge-blocks make the interior of the heads flaring, so that logs of any size may be inserted and held therein. The log thus is rapidly rotated, while the auger is stationary and brought up to the log. The auger is composed of an ordinary bit or cutter, secured on the end of the exterior tube D, said bit projecting a short distance beyond the end of the interior tube D'.

The exterior tube D projects from the center of a steam-box, G, which is mounted upon a carriage, H, sliding upon the frame A, while the interior tube D' passes through said steam-box, as shown.

The carriage H is operated by means of an elongated screw-shaft, I, for feeding the auger to and into the log. Steam is admitted into the

chest G at *h*, and passes around the interior tube D', into the log at the bit, and then returns through the interior tube, carrying off with it all the chips, dust, &c.

By the log rotating and the auger remaining stationary, except as far as feeding is concerned, a true bore will be made in the log, as the auger, by the rapid revolution of the log, becomes, so to say, supported upon all sides, which is not the case where the auger rotates, because then the auger is not only apt to sag down by its own weight, but also liable to sheer off to one side into the sap, instead of running straight through the log.

The application of steam, as described, has several important advantages. It carries off the chips, &c., softens the wood in front of the auger, and, in case of frost, drives the frost ahead of the auger.

It will, of course, be understood that the carriage C, after the log has been fastened, is to be secured to the frame by any suitable device that will allow of its being quickly released again.

In a full-sized machine the end of the auger will be supported by a movable support until the bit has entered the log, when said support will be removed, and the log itself form the support for the auger.

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

1. The heads B B¹, provided with interior wedge-shaped blocks *d*, for the purposes herein set forth.

2. The combination of the two rotating heads B B¹, provided with interior wedges *d d*, and a rigidly-attached cutting bit or tool capable of being fed to the log, all substantially as set forth.

3. The combination of the exterior tube D, interior tube D', and steam-chest G, constructed as described, whereby steam is passed around the interior tube to the bit, and returns through said tube, carrying with it chips, &c., as herein set forth.

In testimony that I claim the foregoing I have hereunto set my hand this 16th day of August, 1877.

W. C. BARKER.

Witnesses:

FRANK GALT,
J. C. SCHROEDER.