No. 612,227. Patented Oct. 11, 1898.

J. H. BAKER, G. F. SHEVLIN & F. H. BAKER.

WOOD BARKING MACHINE.

(Application filed Oct. 6, 1897.)

(No Model.)

Fig. 2.

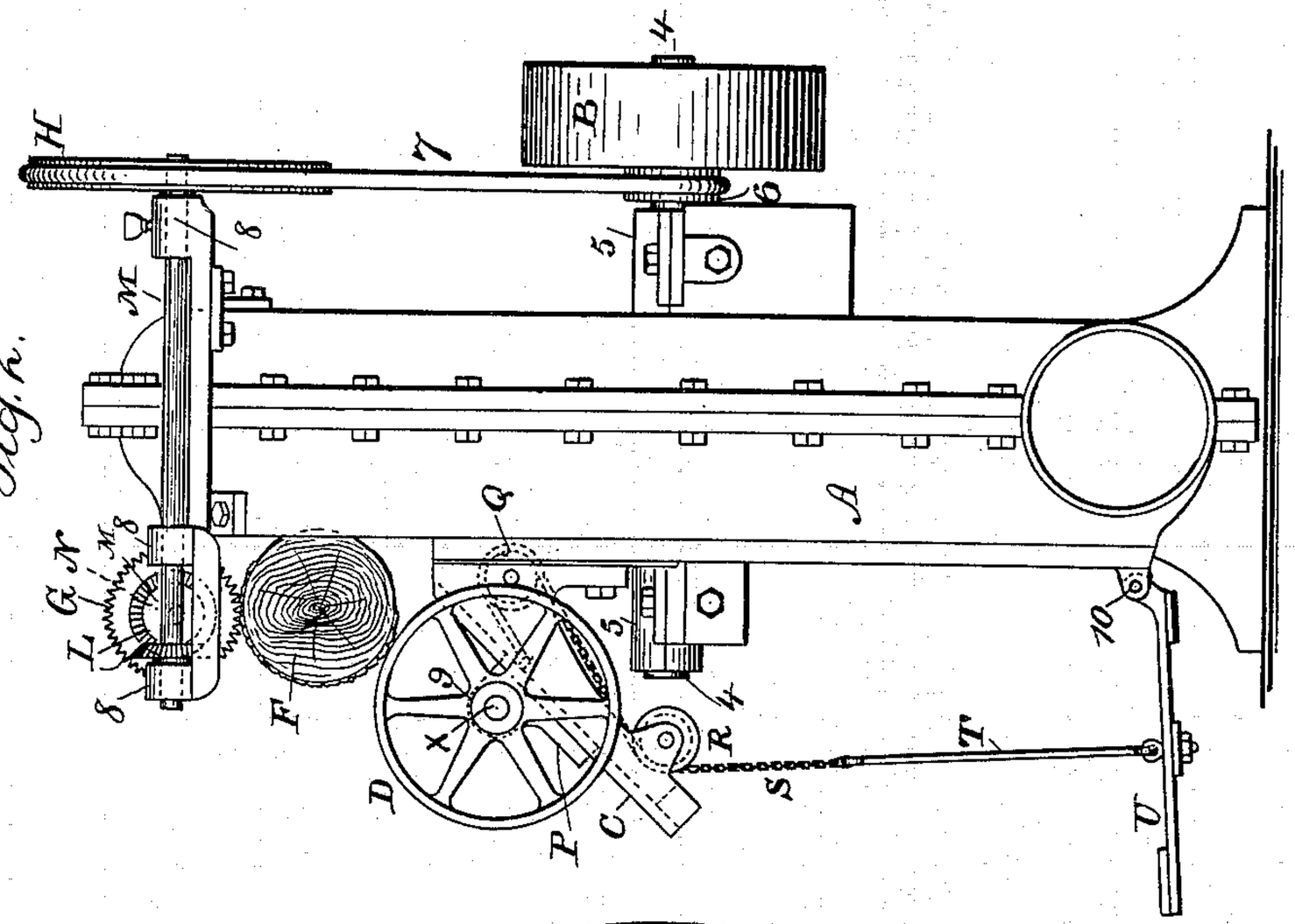
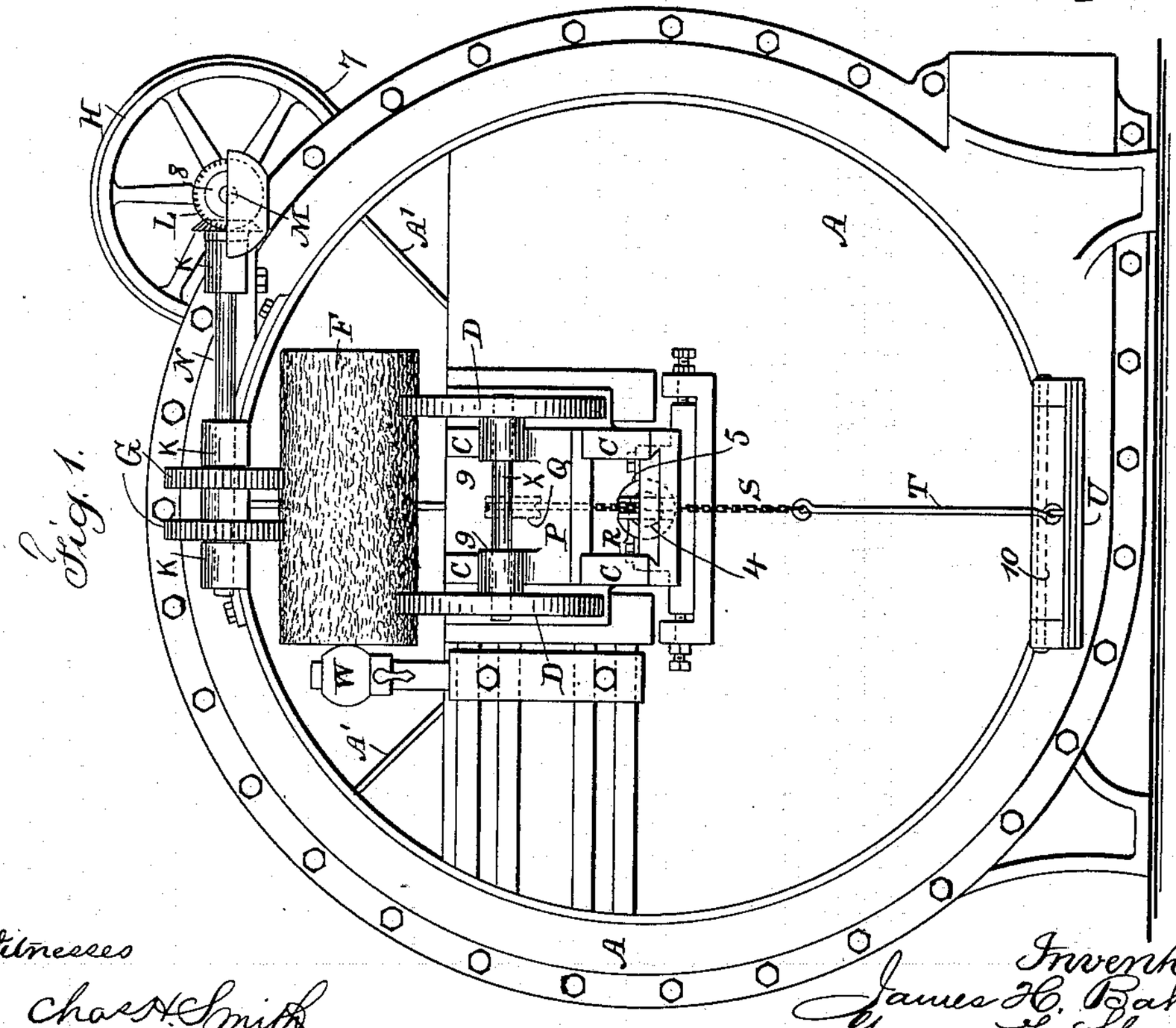


Fig. 1.



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UNITED STATES PATENT OFFICE.

JAMES H. BAKER, GEORGE F. SHEVLIN, AND FREDERICK H. BAKER, OF SARATOGA SPRINGS, NEW YORK.

WOOD-BARKING MACHINE.

SPECIFICATION forming part of Letters Patent No. 612,227, dated October 11, 1898.

Application filed October 6, 1897. Serial No. 654,224. (No model.)

To all whom it may concern:

Be it known that we, JAMES H. BAKER, GEORGE F. SHEVLIN, and FREDERICK H. BAKER, citizens of the United States, residing at Saratoga Springs, in the county of Saratoga and State of New York, have invented an Improvement in Wood-Barking Machines, of which the following is a specification.

In the manufacture of paper-pulp from wood the bark of the log is usually removed previous to the grinding operation; and with this object in view a disk provided with radial knives has been made use of and the log of wood has been supported on rollers while being presented to the action of the knives, but difficulty has arisen in supporting logs of different diameters during the barking operation, and also in arresting the rotation of the log during the removal of knots or inequalities in the bark.

The object of the present invention is to adapt the barking-machine to different sizes of logs and also to allow the attendant to suspend the rotary movement of the log while the cutters are removing knots or inequalities in the bark, so as to entirely remove that which might be injurious in the production of the paper-pulp.

With the aforesaid object in view toothed wheels, continuously revolved, are employed for rotating the log and the log is supported beneath these toothed wheels by wheels and a cross-shaft and bed upon an inclined slide, and foot-lever connections are employed for drawing the slide and moving the log up against the toothed wheels, and in consequence of the inclination of the slide the supporting-wheels will be farther away from the rotary cutter with a large log than with a small one, and when the pressure of the log against the toothed wheels is relieved the rotary motion of the log will cease, thereby allowing the cutter to remove knots or extra thicknesses of bark, and these operations are performed without risk to the attendant in handling or turning the log.

In the drawings, Figure 1 is an elevation of the apparatus, and Fig. 2 is an elevation at right angles to Fig. 1.

Within the case A there is to be a suitable rotary cutter A′ upon the shaft 4; that is supported in the bearings 5 upon the case A. As this rotary cutter and the case are well known, further description is unnecessary.

Adjacent to the driving-pulley B upon the shaft 4 is a pulley 6 and band 7 to the pulley H upon the end of the shaft M, supported in suitable bearings 8 upon the case A, and the beveled gears L communicate motion to the shaft N and the toothed feeding-rolls G, there being bearings K upon the case A for the shaft N at each side of the toothed feed-rolls G, and the side of the case A below the feed-rolls G is open, in order that the log F may be in a position to be acted upon by the rotary knives or cutters within the case A.

At one side of the case A the inclined bed C is permanently fastened, and upon it a carriage P is adapted to slide, and this carriage has bearings 9 for the shaft X, upon the ends of which are the supporting-wheels D, and the foot-lever U, preferably pivoted at 10 upon the case A, is provided with a rod T and chain S, the latter passing over a wheel R and around the wheel Q, and the end of the chain is fastened to the carriage P, so that by the action of the foot upon the lever U the carriage P can be drawn up the inclined bed C, or such carriage can slide back by its weight when the pressure of the foot is relieved, and this carriage P and the supporting-wheels D sustain the log F while the bark is removed therefrom, and the log will be rotated by the feed-rolls G when pressed into contact with such rolls by the action of the foot-lever U; but when the pressure upon such lever U is released the log remains in position and under the action of the cutters without being rotated for the removal of knots and extra thicknesses of bark, it being understood that the speed with which the feed-rollers G are driven is such that under ordinary circumstances the bark will be entirely stripped from the log by the action of the knives as the log is rotated and that it is only necessary to suspend the feeding operation in order to remove knots or unusual thicknesses of bark.

With large logs the carriage P will be farther from the rotary cutter than it will when supporting small logs, and hence the log will

never tend to roll off the supporting-wheels D toward the attendant, but will tend to roll toward the barking-knives.

Any suitable support may be provided at the end of the log to withstand the thrust from the knives. The roller W upon a vertical support is represented for this purpose.

We claim as our invention—

1. The combination with the revolving mechanism for cutting the bark, of toothed feed-rolls, mechanism for driving the same continuously, a carriage and wheels for supporting the log and mechanism for moving the carriage upward and pressing the log against the feed-rolls, substantially as specified.

2. The combination with the cutting-knives for barking the log, of an inclined bed, a carriage and log-supporting wheels upon the bed, mechanism for moving the carriage and wheels upward, feed-rolls above the log and mechanism for driving the same for turning the log, substantially as set forth.

3. The combination with the cutting-knives for barking the log and the inclosing case, of an inclined bed supported by the case, a carriage and log-supporting wheels upon the bed, a foot-lever and mechanism for acting upon the carriage for moving the carriage and wheels up the incline, and feed-rolls above the log and mechanism for driving the same for turning the log, substantially as set forth.

4. The combination with the revolving cutters for barking the log, of feed-rolls occupying a fixed position and means for revolving the same, log-supporting rolls and means for moving the log-supporting rolls toward the feed-rolls for pressing the log into contact with the feed-rolls or for allowing such log to remain out of contact with the feed-rolls to arrest the feed, substantially as set forth.

Signed by us this 2d day of October, 1897.

JAMES H. BAKER.
GEO. F. SHEVLIN.
FREDERICK H. BAKER.

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