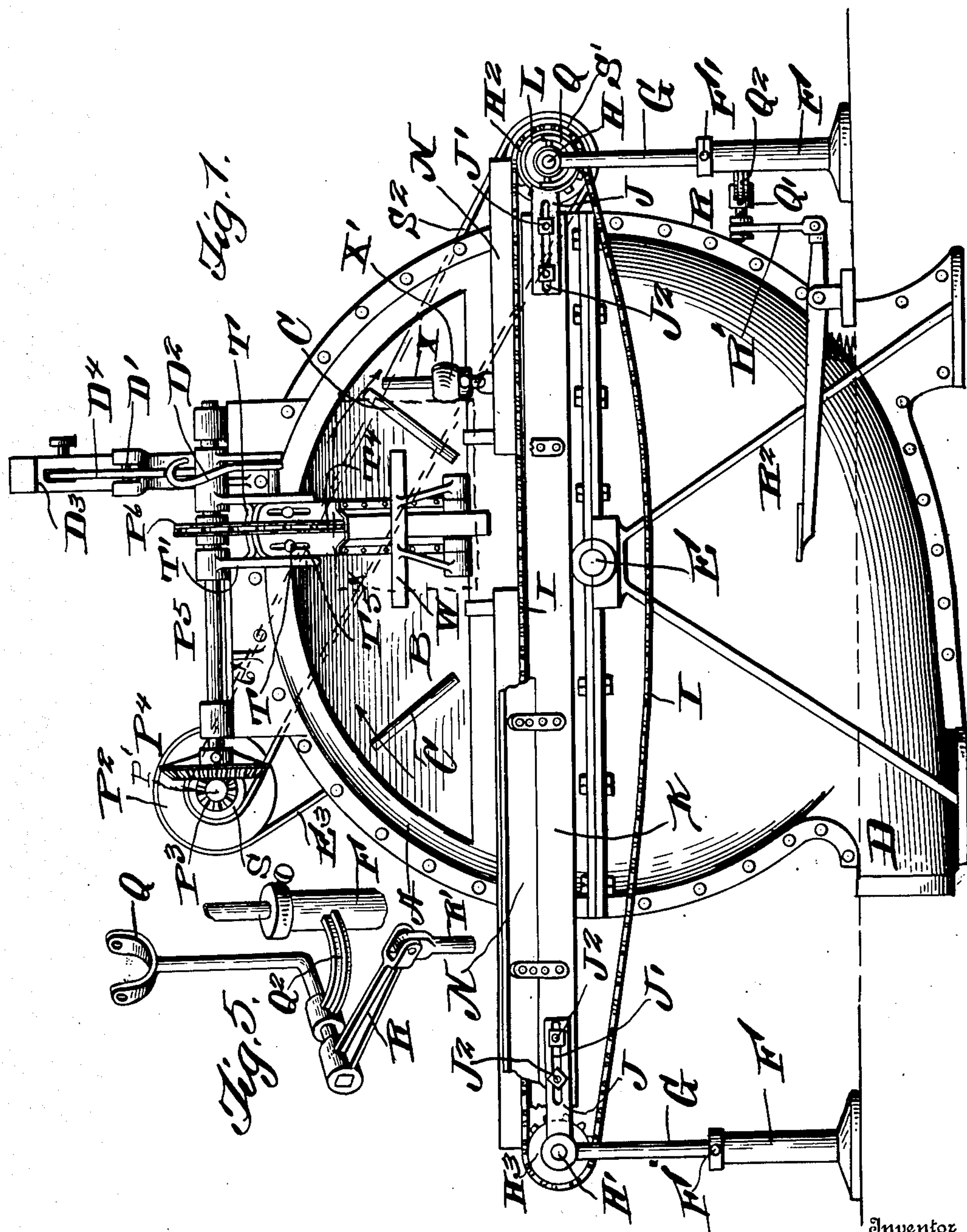


J. M. BALDWIN.
ROSSING MACHINE.
APPLICATION FILED SEPT. 29, 1908.

916,651.

Patented Mar. 30, 1909.

3 SHEETS—SHEET 1.



Inventor

James M. Baldwin,
Franklin D. Hoyt

Attorney

Witnesses

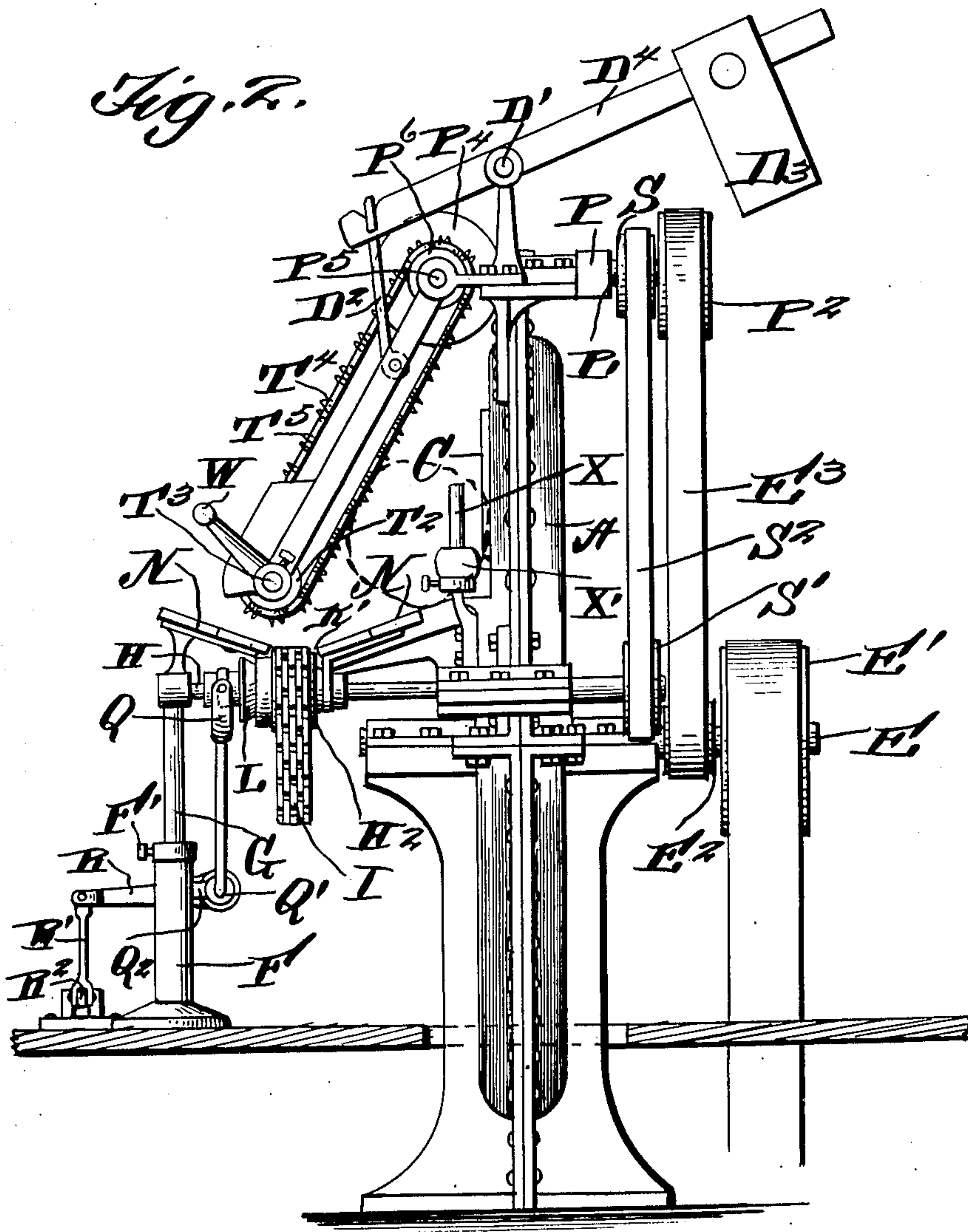
R. B. Boswell
G. L. Hoyt

J. M. BALDWIN.
ROSSING MACHINE.
APPLICATION FILED SEPT. 29, 1908.

916,651.

Patented Mar. 30, 1909.

3 SHEETS—SHEET 2.



Witnesses

R. B. Boswell.
A. L. Hough.

Inventor

James M. Baldwin,
Franklin D. Hough

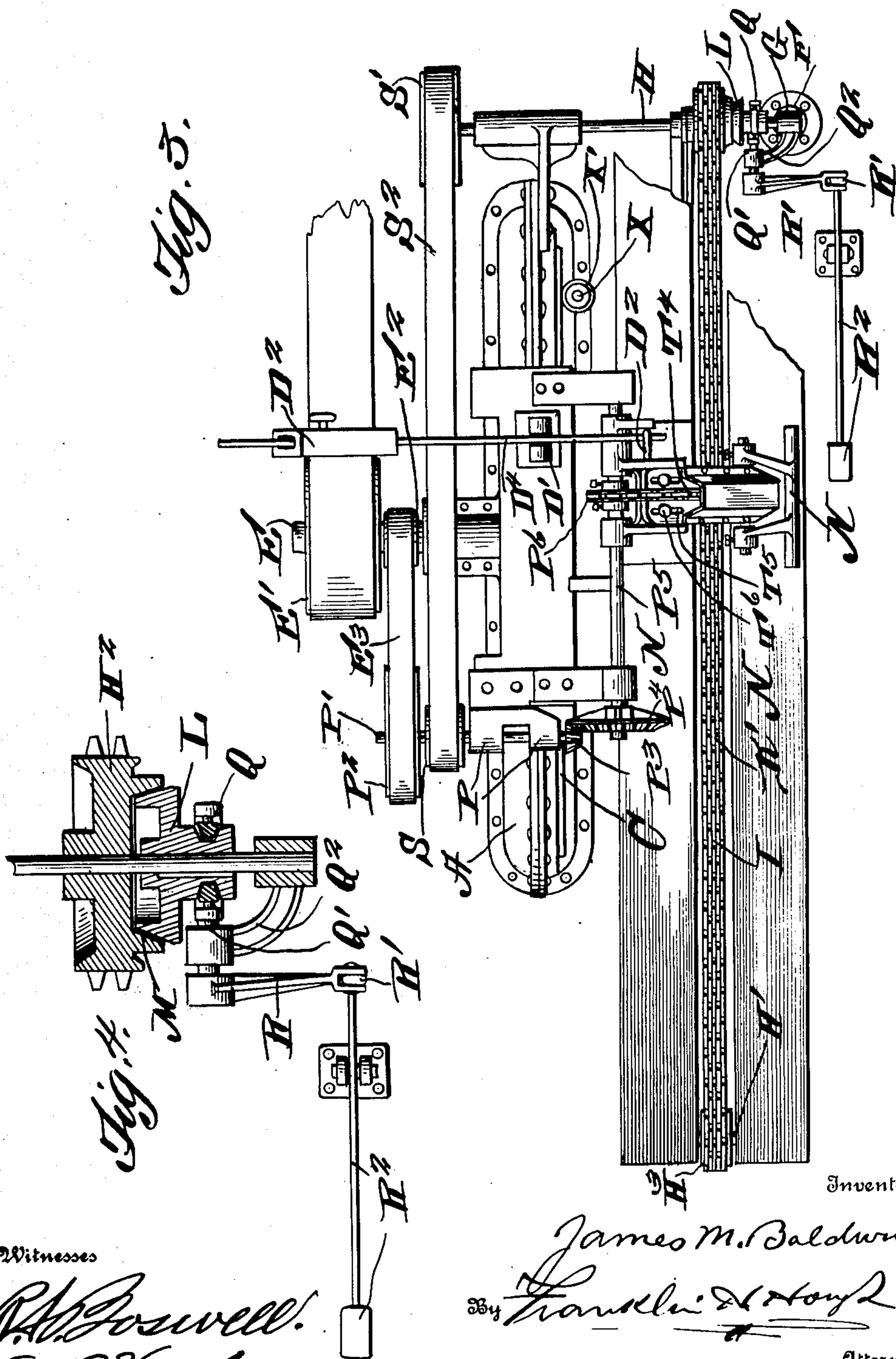
Attorney

ROSSING MACHINE.

Patented Mar. 30, 1909.

3 SHEETS—SHEET 3.

916,651.



Inventor

James M. Baldwin,

334 Franklin D. Stoyr

Attorney

Witnesses

R. H. Foswell.
A. & Hough.

UNITED STATES PATENT OFFICE.

JAMES M. BALDWIN, OF BROWNVILLE, NEW YORK, ASSIGNOR OF ONE-HALF TO RYTHER & PRINGLE CO., OF CARTHAGE, NEW YORK.

ROSSING-MACHINE.

No. 916,651.

Specification of Letters Patent.

Patented March 30, 1909.

Application filed September 29, 1908. Serial No. 455,311.

To all whom it may concern:

Be it known that I, JAMES M. BALDWIN, a citizen of the United States, residing at Brownville, in the county of Jefferson and State of New York, have invented certain new and useful Improvements in Rossing-Machines; and I do hereby declare the following to be a full, clear, and exact description of the invention, such as will enable others skilled in the art to which it appertains to make and use the same, reference being had to the accompanying drawings, and to the letters and figures of reference marked thereon, which form a part of this specification.

This invention relates to new and useful improvements in machines for rossing bark and the object in view is to generally improve upon and render more efficient this class of inventions and in so doing produce an apparatus which will reduce to minimum the manual labor required in handling the stock and greatly increase the capacity of the machine.

The invention consists essentially in the provision of an inclined stationary trough or table having a conveyer passing longitudinally through a slot in the lowest portion thereof and upon which the blocks of wood to be rossed are fed means being provided for, automatically moving the block from the trough or table against the knives of a rotary cutter and, after the bark has been removed from the block, the latter is allowed to roll back by gravity upon the conveyer.

The invention comprises various details of construction, combinations and arrangements of parts which will be hereinafter fully described and then specifically defined in the appended claims.

My invention is illustrated in the accompanying drawings, in which:—

Figure 1 is a side elevation of the apparatus. Fig. 2 is an end view. Fig. 3 is a top plan view. Fig. 4 is a sectional view through the frictional clutch mechanism, and Fig. 5 is an enlarged view in elevation of the means for actuating the frictional clutch mechanism.

Reference now being had to the details of the drawings by letter, A designates a casing for the reception of the disk cutter wheel B to which the usual cutting knives C are held, a portion of the wall of said casing be-

ing open to allow the block of wood to be rossed to come in contact with the rapidly rotating cutter knives. Leading from the lower portion of said casing is a passageway D through which the bark, as it is rossed from the block, may be drawn away by any suitable suction force. A shaft E is journaled in suitable bearings in said casing and has a main driving pulley E' fixed thereto and to which power is applied for driving the plate carrying disk.

Mounted at any suitable locations are the hollow posts F having set screws F' mounted in threaded openings therein and in each of said posts is mounted an adjustable standard G, the upper ends of which form bearings for the shafts H and H' to which the sprocket wheels H² and H³ are mounted, the former of said wheels being loosely mounted upon the shaft H while the latter is keyed to the shaft H'.

K designates a trough or table having an elongated slot K' in the bottom thereof in which slot the endless conveyer chain I travels, which chain is mounted upon the sprocket wheels H² and H³. Adjustably mounted upon the upright portions of said trough or table are the plates J connected at their outer ends to the shafts H and H' and each of said plates has an elongated slot J' through which the bolts J² carried by the side wall of the trough or table pass and suitable nuts are mounted upon said bolts for holding the plates in adjustable positions with reference to the trough or table.

By the provision of the adjusting means described, it will be noted that the trough or table may be held in different positions to adapt the apparatus for use in connection with various forms of rossing apparatus, as it will be understood that my invention is of such a simple nature and so constructed that it may be readily adapted for use in connection with various forms of debarking machines. Said trough or table has the inclined portions N which will cause the block, after the bark has been removed therefrom, to roll down upon the conveyer and be carried forward and deposited upon another conveyer and carried away to any suitable location without the necessity of the operator handling the block. A suitable endless conveyer, not shown, may be provided for carrying the blocks to be rossed to

the conveyer which moves through the slot of said trough or table, whereby the operator of the rossing machine may devote his entire attention to the machine without the necessity of losing time in picking up the billets or blocks to be rossed and which is considerable of a desideratum in economy of time.

Splined to the shaft H is a frictional clutch cone L having a tapering circumference adapted to contact with the tapering wall of a recess M formed in one face of the sprocket wheel H², as shown clearly in the sectional view of the drawings. A clutch throwing yoke, designated by letter Q, is in engagement with the frictional clutch cone and is pivotally connected at Q' to a projection Q² upon the trough or table. The other end of said yoke is pivotally connected to a crank arm R fixed to the shaft R' and to which shaft is connected a spring-pressed or weight-actuated foot lever R² whereby the operator, by depressing said lever, may cause the friction cone to be thrown out of gear and cause the conveyer carrying the block to stop and, by releasing the foot lever, said conveyer will resume its forward movement.

Mounted in suitable bearings P upon said casing is a shaft P' having a pulley P² fixed thereto and E² designates a pulley which is fixed to the main driving shaft E and has belted connection E³ with the pulley P² for driving the shaft P'. A beveled pinion P³ is fixed to the shaft P' and is in mesh with a similar beveled pinion P⁴ fixed to the shaft P⁵ mounted in bearings projecting from the casing of the rossing apparatus. Mounted upon the shaft P' is a second pulley S, and S' designates a pulley which is fixed to the shaft H and a belt S² passes about the two pulleys S and S' and affords means for driving the shaft H.

Fixed to the shaft P⁵ is a sprocket wheel P⁶, and T designates a yoke having arms T' which are loosely mounted upon the shaft P⁵, one upon either side of the sprocket wheel P⁶, and T² designates a sprocket wheel having spindles T³ journaled in the outer end of said yoke T. A sprocket chain T⁴ passes about the two sprocket wheels P⁶ and T² and is provided with spurs T⁵ upon the links of the chain T⁴ provided for the purpose of pricking into the block from which the bark is to be removed and causing the block to be fed up the inclined trough or table and against the knives of the rotary cutter. A handle W is provided upon said yoke T affording means for swinging the latter into such a position that the chain thereon will engage the block of wood and cause the same to be fed to the rotary cutter. Said yoke T is normally held at its farthest outer throw by a lever D⁴ mounted upon a pivot D' and having a link connection D²

with the yoke while a counterpoise weight D³ is adjustably held upon the long arm of said lever D⁴.

Mounted upon a vertically disposed pin X rising from the casing of the frame is a friction roller X' against which the end of the block bears as the latter is rotated by the endless chain T⁴ as the rotary knives are in contact with the bark of the block in rossing the same. In order to regulate the tension of the conveyer chain T⁴, said yoke is provided with elongated slots T^{5x} adapted to receive the adjusting bolts T^{6x} carried by a section of the yoke, suitable nuts being mounted upon said adjusting bolt.

The operation of my rossing apparatus is as follows:—The blade carrying disk is driven at a rapid speed by power applied to the main shaft. The blocks to be rossed are fed forward on the conveyer I, which latter is constantly in motion excepting as the operator throws the friction clutch out of gear, which will cause the conveyer I to come to a standstill. When the block upon the conveyer I comes to a location from which it is desired to cause the same to be carried in contact with the rotary cutter, the operator by depressing the foot lever may cause the conveyer to stop after which, by pushing the yoke T, toward the rotary cutter, the spurs upon the continuously moving endless chain T⁴ will contact with the block of wood and cause the same to be fed up the inclined wall of the trough or table and against the projecting knives of the rotary cutter. As the endless chain is constantly in motion, it will cause the block to rotate against the knives as they sever the bark from the block. It will be noted that the knives upon the rotary cutter are so positioned with relation to the block from which the bark is being removed that, when the knives contact with the bark, they will have passed by vertical positions and cause a downward draw cut upon the bark which will have a tendency to hold the block in proper position, one end of the block bearing against the roller X'. As soon as the bark is removed from the block and as the operator releases his hold of the handle W, the counterbalanced lever D⁴ will cause the yoke T to return to its farthest outer throw and the block from which the bark has been rossed, falling by gravity upon the inclined wall of the trough, will roll down upon the endless conveyer I which is put in motion by the operator removing his foot from the foot lever. When the block from which the bark has been removed reaches the end of the conveyer, it may be automatically dropped upon any suitable conveyer mechanism from which it may be carried away from the apparatus.

From the foregoing, it will be noted that, by the provision of an apparatus as shown and described, the operator is saved the work

of raising a block from the carrier and also handling the block after the bark has been removed therefrom, as the block, when freed of its bark, will fall by gravity upon the inclined wall of the trough and back upon the carrier which may be put in motion by the operator releasing his foot from the clutch throwing lever.

What I claim to be new is:—

10 1. A rossing apparatus comprising, in combination with a rotary cutter, a stationary conveyer trough having an inclined wall, an endless conveyer movable through said trough, mechanism positioned at one side of the vertical center of the cutter and adapted to raise the blocks from the conveyer up the inclined wall of the trough and hold the same against the cutter, as set forth.

20 2. A rossing apparatus comprising, in combination with a rotary cutter and casing therefor, a trough having inclined walls, a conveyer movable through a longitudinal opening at the lower edges of the inclined walls of the trough, one of said walls extending from the casing to said conveyer, an endless spurred log feeding chain positioned above said trough and at one side of the vertical center of the rotary cutter and designed to raise a billet of wood from the conveyer up the inclined wall of the trough and to hold the block against the cutter, as set forth.

30 3. A rossing apparatus comprising, in combination with a rotary cutter and casing therefor, a vertically adjustable trough, a conveyer movable through a longitudinal opening at the lower edges of the inclined walls of the trough, one of said walls extending from the casing to said conveyer, an endless spurred log feeding chain positioned above said trough and at one side of the vertical center of the rotary cutter and designed

to raise a billet of wood from the conveyer up the inclined wall of the trough and to hold the block against the cutter, as set forth.

4. A rossing apparatus comprising, in combination with a rotary cutter and casing therefor, hollow standards, posts adjustably held therein, a trough supported by said posts and having inclined walls, a conveyer movable through a longitudinal opening at the lower edges of the inclined walls of the trough, one of said walls extending from the casing to said conveyer, an endless spurred log feeding chain positioned above said trough and at one side of the vertical center of the rotary cutter and designed to raise a billet of wood from the conveyer up the inclined wall of the trough and to hold the block against the cutter, as set forth.

5. A rossing apparatus comprising, in combination with a rotary cutter and casing therefor, hollow standards, posts adjustably held therein, slotted bearing plates supported by said posts, a trough adjustably connected to said bearing plates and having inclined walls, a conveyer movable through a longitudinal opening at the lower edges of the inclined walls of the trough, one of said walls extending from the casing to said conveyer, an endless spurred log feeding chain positioned above said trough and at one side of the vertical center of the rotary cutter and designed to raise a billet of wood from the conveyer up the inclined wall of the trough and to hold the block against the cutter, as set forth.

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

JAMES M. BALDWIN.

Witnesses:

JOHN WHALING,
L. C. ENGLISH.