

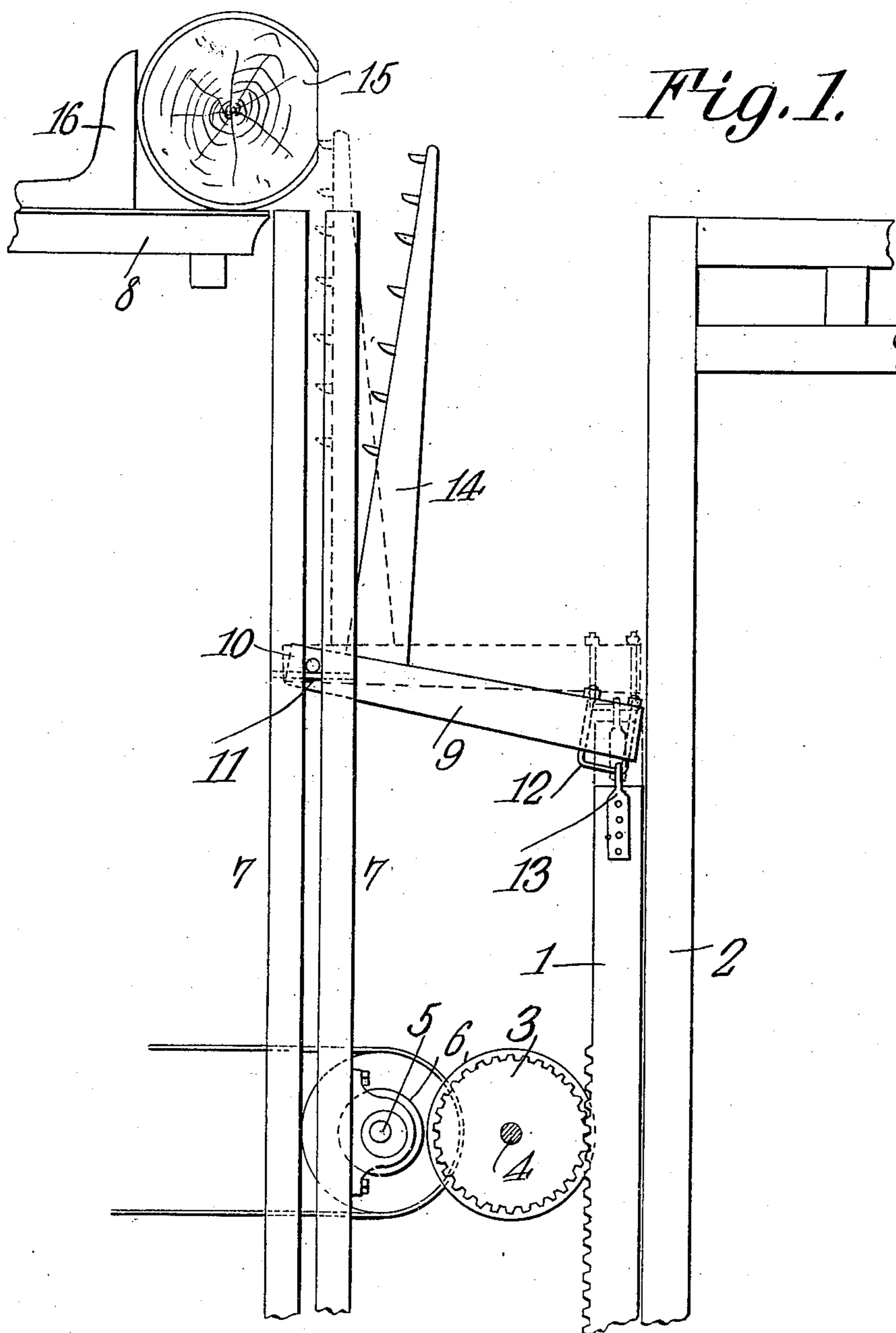
No. 889,446.

PATENTED JUNE 2, 1908.

W. E. DOWNING.
SAW LOG NIGGER.

APPLICATION FILED JAN. 31, 1907.

2 SHEETS—SHEET 1.



WITNESSES.

E. J. Stuart

E. A. Smith, Albany

Wily E. Downing,
INVENTOR.

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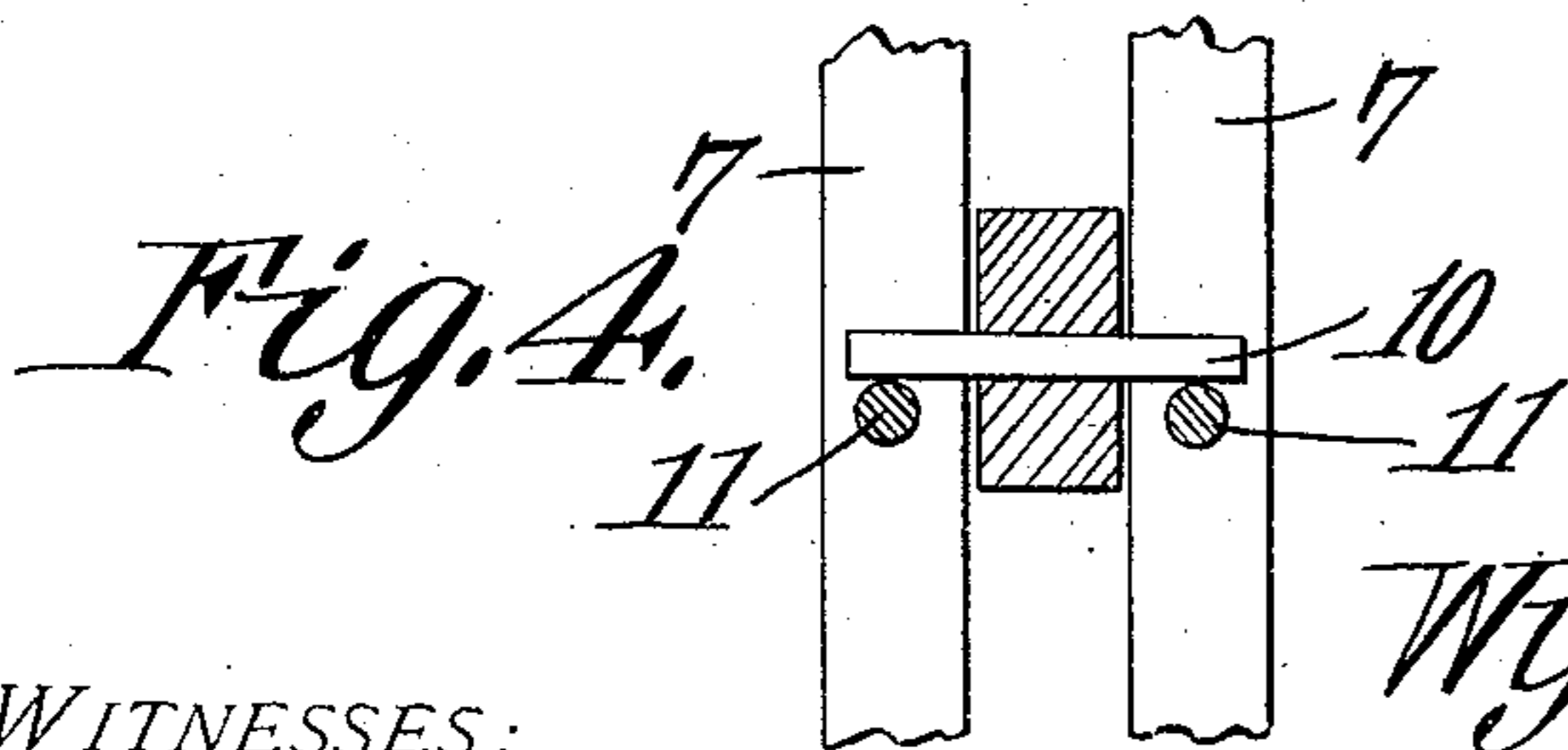
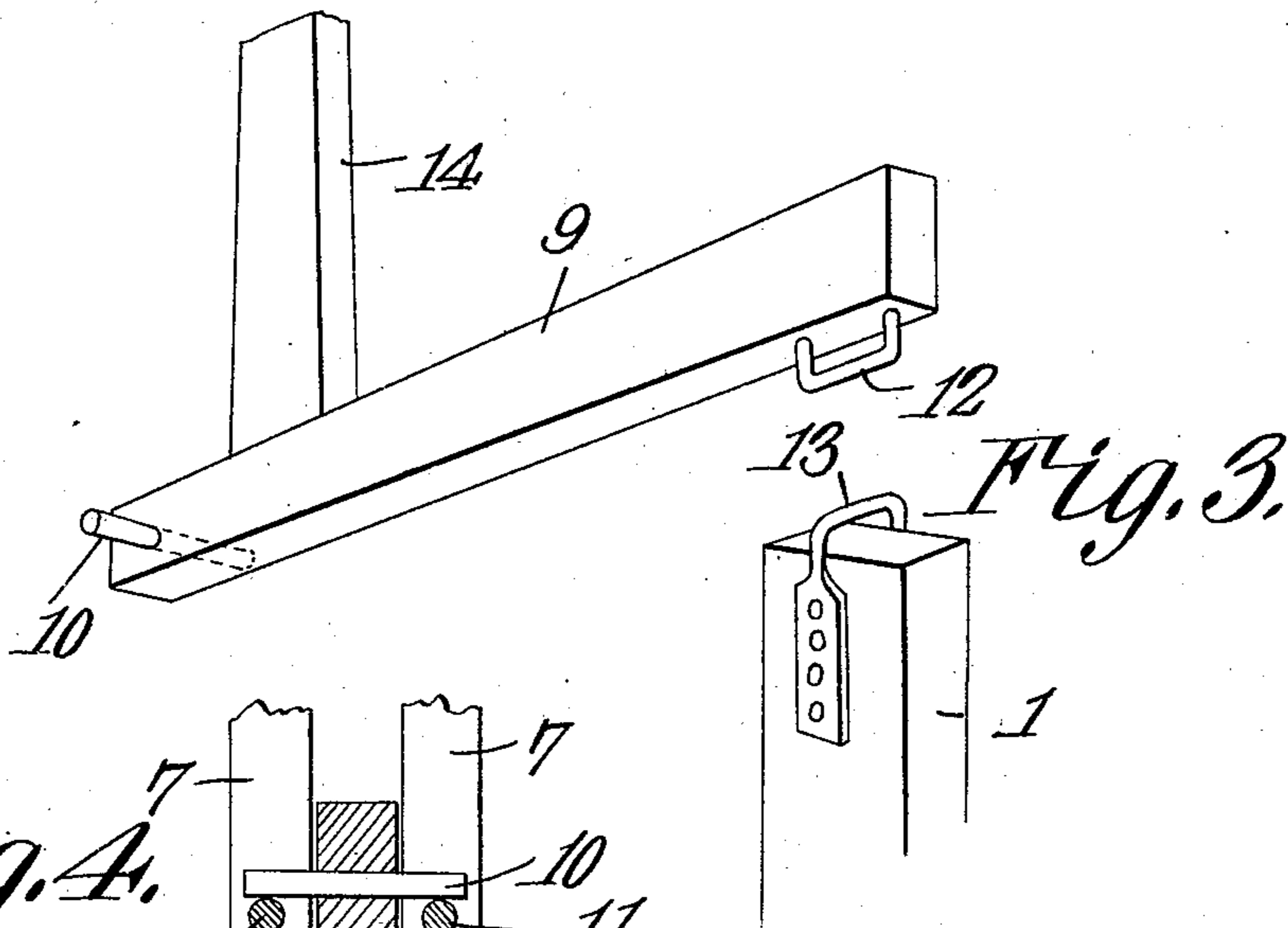
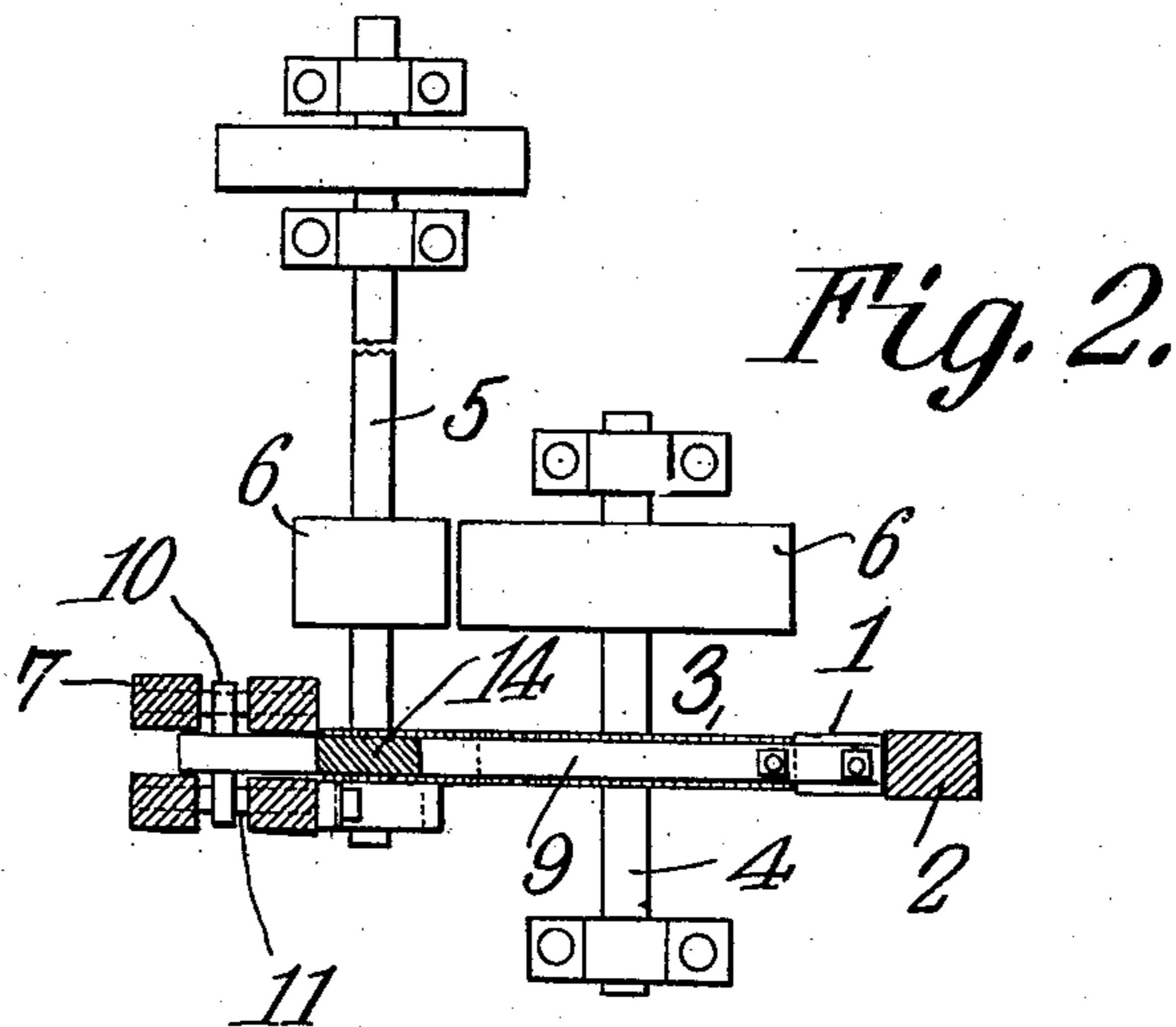
ATTORNEYS

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WITNESSES:

E. J. Stewart
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W. E. Downing
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UNITED STATES PATENT OFFICE.

WYLY ELISHA DOWNING, OF OVETT, MISSISSIPPI.

SAW-LOG NIGGER.

No. 889,446.

Specification of Letters Patent.

Patented June 2, 1908.

Application filed January 31, 1907. Serial No. 355,166.

To all whom it may concern:

Be it known that I, WYLY E. DOWNING, a citizen of the United States, residing at Ovett, in the county of Jones and State of Mississippi, have invented a new and useful Saw-Log Nigger, of which the following is a specification.

This invention has relation to friction niggers used in connection with saw mill carriages for turning logs and it consists in the novel construction and arrangement of its parts as hereinafter shown and described.

The object of the invention is to provide a power operated device of the character indicated which is adapted to turn a log while resting upon a saw carriage and thus relieve the operators of the arduous labor of so manipulating the log manually.

The device consists primarily of a geared propeller which meshes with a gear wheel mounted upon a shaft. Suitable means is provided for rotating said shaft when desired in order that the said propeller may be moved vertically. The upper end of said propeller is connected with a beam which in turn has mounted upon it a toothed bar. Said beam is provided with a cross-pin which works between vertically disposed guides which direct the upward movement of said beam and suitable guides are provided for the propeller. As the said propeller moves vertically and the beam, while moving vertically, describes an arc, means is provided at the connection between said parts for compensating for such difference in movement. When the propeller bar moves upward the beam is carried up also and swung upon its cross-pin whereby the upper portion of the toothed bar is brought in contact with the side of the log resting upon the carriage and the said log is turned. When the propeller bar descends the beam and bar follow the same leaving the log in its turned position.

In the accompanying drawing:—Figure 1 is a side elevation of the invention. Fig. 2 is a horizontal sectional view of the same. Fig. 3 is a perspective view of the beam and propeller separated, and Fig. 4 is a transverse sectional view of the beam.

The device consists of the gear propeller 1 which is arranged to move vertically along the guide 2. The gear of the bar 1 meshes with the gear wheel 3 which is fixed to the counter-shaft 4. The said counter-shaft 4 is driven at intervals by the main shaft 5 through the friction wheels 6, 6. The spaced

guides 7, 7 are vertically disposed and their upper ends terminate substantially at a level with the upper surface of the bed of the log carriage 8. The beam 9 is provided with a cross-pin 10 the end portions of which are located between the guides 7, 7. The said guides are provided with stops 11 which limit the downward movement of the pin 10. The rear portion of the beam 9 is provided with a bail 12, the intermediate portion of which is disposed in alinement with the longitudinal axis of the said beam. The upper end of the propeller 1 is provided with a bail 13 which passes through the bail 12. The intermediate portions of the bails 12 and 13 are disposed substantially at right angles to each other. The toothed bar 14 is mounted upon the beam 9 in the vicinity of the cross-pin 10 thereof. The saw log 15 rests upon the bed of the table 8 and is held against rearward movement thereon by the knee 16 in the usual manner.

The operation of the device is as follows:—When it is desired to turn the log 15 the shaft 5 is caused to rotate by shifting a belt or otherwise and through friction wheels 6 the shaft 4 is rotated together with the gear wheel 3. As the said gear wheel 3 meshes with the gear propeller 1 the said propeller is elevated vertically. The beam 9 in its initial movement will swing upon the pin 10 as a pivot until the upper portion of the toothed bar 14 comes in contact with the side of the log 15 when the beam 9 and bar 14 will move vertically and the teeth of the said bar engaging the side of the log 15 will turn the same upon the bed of the table 8 and against the knee 16. When the said log is turned the operation above described is reversed when the parts are carried to their normal positions out of the way. It will be observed that the gear propeller 1 may move vertically only, while the beam 9 moves vertically and at the same time describes an arc. This difference in movement is compensated for by the bails 12 and 13 which are linked together as above described, which also permits the end of the beam 9 to operate over the end of the propeller 1 and against the guide 2 whereby the pin 10 is relieved of strain.

Having described my invention what I claim as new and desire to secure by Letters-Patent is:—

A saw log nigger comprising a vertically disposed guide, a propeller bar mounted for

longitudinal movement along said guide and
having teeth on its side away from the guide,
opposite sets of binate guides, a beam ex-
tending between the opposite sets of binate
5 guides, a cross pin carried by the beam and
lying between the guides of the opposite sets
of binate guides, each set of binate guides
having a stop located in the path of the cross
pin for limiting the downward movement of
10 the beam, bails attached to the propeller bar
and the beam and engaging each other and
being disposed substantially at right angles to
each other, a toothed bar mounted upon the
beam at a point intermediate of the ends

thereof, the end of said beam lying over the 15
upper end of the propeller and directly oppo-
site the first said guide a gear wheel meshing
with the teeth of the propeller and a contin-
uously rotating shiftable shaft having means
for operating the gear wheel at intervals. 20

In testimony that I claim the foregoing as
my own, I have hereto affixed my signature
in the presence of two witnesses.

WYLY ELISHA DOWNING.

Witnesses:

J. L. HARRISON,
F. R. HOLLOWAY.