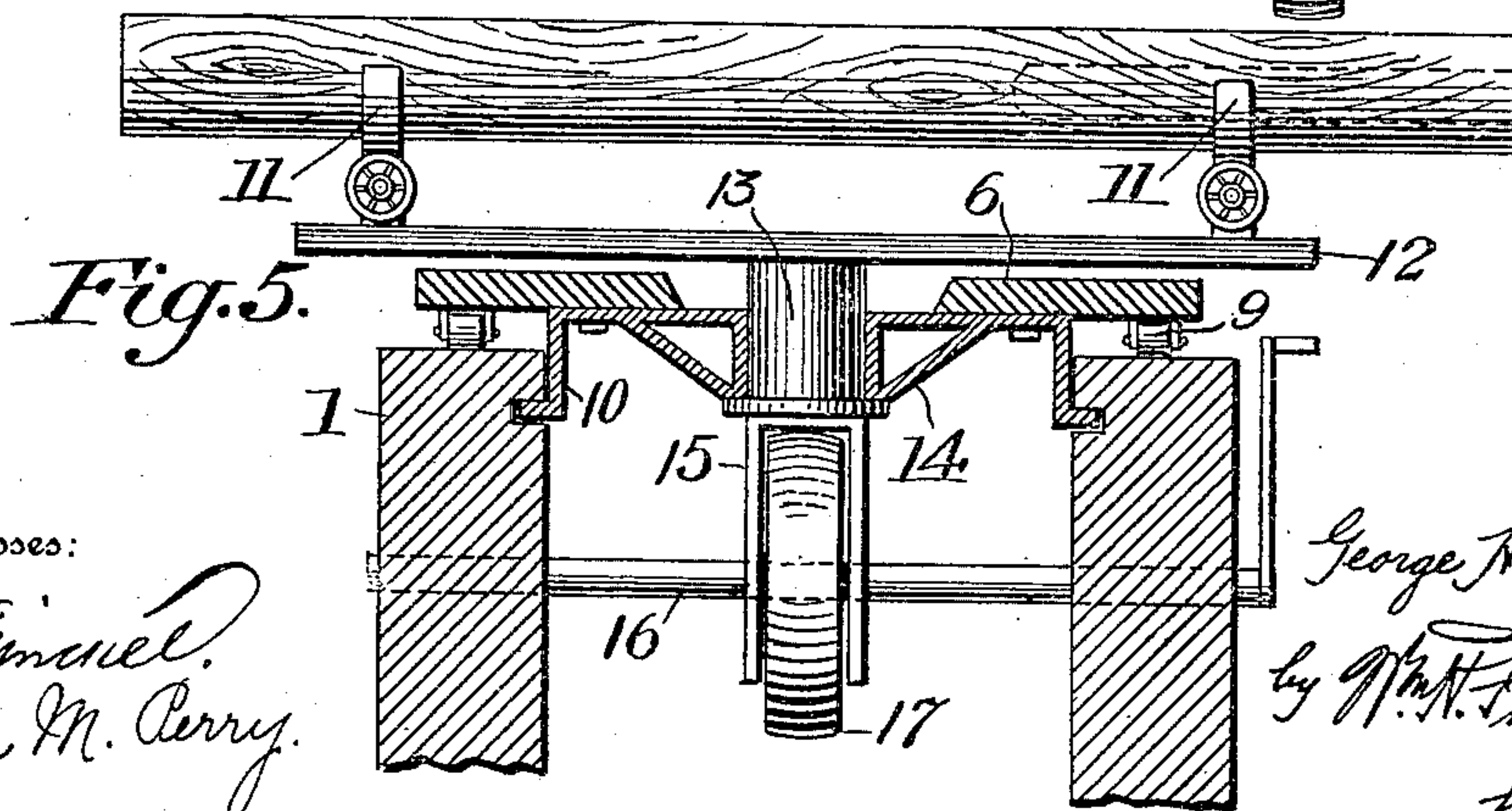
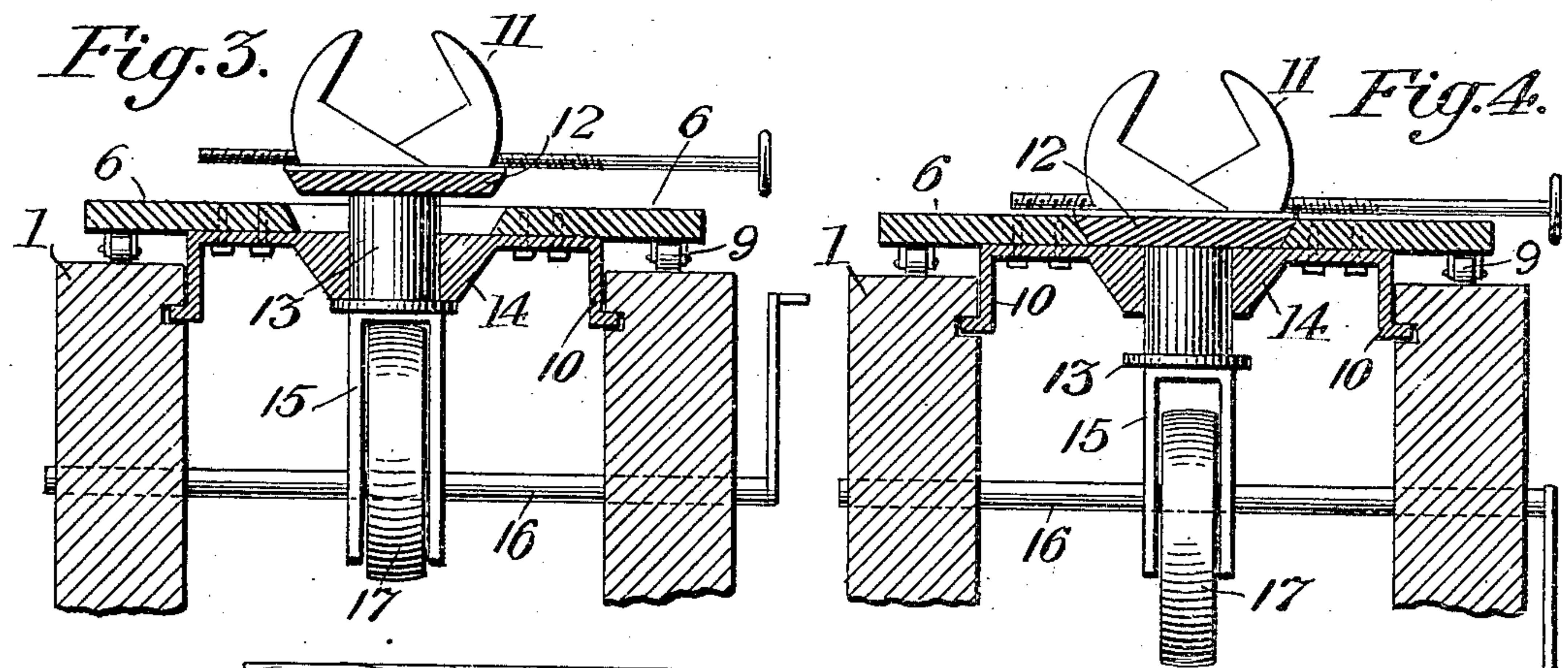
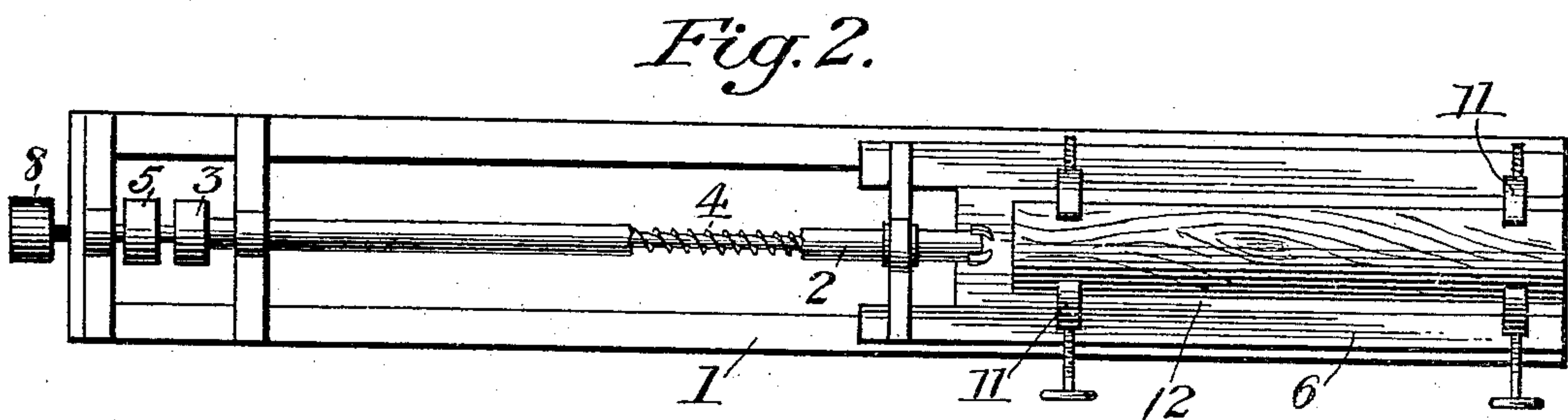
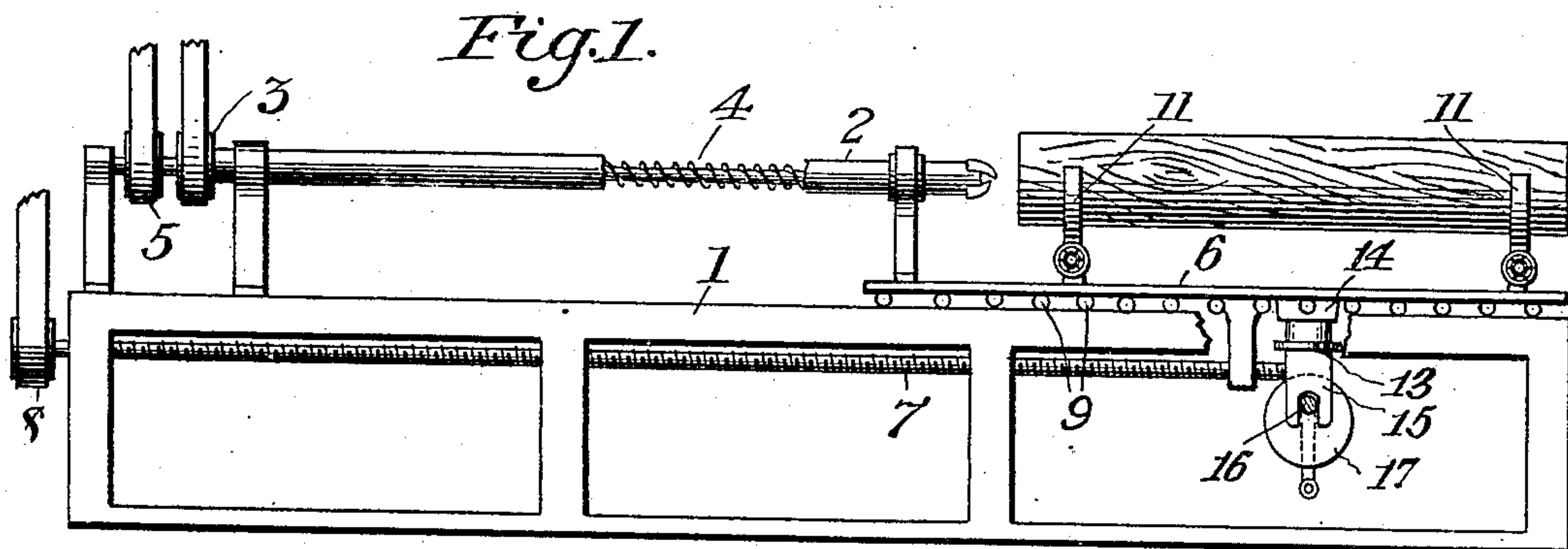


G. H. LAMBERT.  
MACHINE FOR BORING LOGS.  
APPLICATION FILED MAY 25, 1908.

936,330.

Patented Oct. 12, 1909.



Witnesses:

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his Attorney.



# UNITED STATES PATENT OFFICE.

GEORGE H. LAMBERT, OF ASHEVILLE, NORTH CAROLINA.

MACHINE FOR BORING LOGS.

936,330.

Specification of Letters Patent.

Patented Oct. 12, 1909.

Application filed May 25, 1908. Serial No. 434,819.

*To all whom it may concern:*

Be it known that I, GEORGE H. LAMBERT, a citizen of the United States, residing at Asheville, in the county of Buncombe and State of North Carolina, have invented a certain new and useful Improvement in Machines for Boring Logs, of which the following is a full, clear, and exact description.

The object of this invention is to provide a machine for boring wooden columns, logs, and the like from opposite ends without reversing the article in its clamps, and thus to obviate the necessity for lifting the article from its clamps, turning it end for end and clamping and centering it anew, thereby insuring accuracy of the bore and saving time and handling.

The invention consists of a boring machine for the purpose mentioned, in which the clamps are mounted upon a turn-table which forms part of the carriage, so that when the article is once mounted and centered upon the turn-table and it is desired to turn the article end for end, the turn-table is swung around and carries the article with it, all as I will proceed now more particularly to set forth and finally claim.

In the accompanying drawings, illustrating the invention, in the several figures of which like parts are similarly designated, Figure 1 is an elevation and Fig. 2 a top plan view illustrating in a somewhat diagrammatic way one embodiment of the invention. Fig. 3 is a cross-section, on a larger scale, of the machine, the turn-table being raised ready for turning. Fig. 4 is a view similar to Fig. 3 with the turn-table lowered into boring position. Fig. 5 is a cross-section, like Figs. 3 and 4, but showing the turn-table partly turned around and also showing a modified form of hub.

The bed or frame 1 may be of any approved form, and on it are supported the boring tool 2 and its driver 3, the chip-remover or conveyer 4 and its driver 5, and the carriage 6 and its driving screw 7 and driver 8. The carriage may be supported upon the bed or frame by rollers 9 and clips or cleats 10 or any other suitable means. Unlike prior machines of this kind, the clamps 11 (of any approved construction) are mounted upon a turn-table 12 which is set, preferably countersunk in the carriage in any suitable way to cause it to move positively with said carriage and yet be capable of independent movement. This turn-table

has a journal 13 depending from it, say, centrally of its length, and this journal is capable of up and down and rotary movement in a hub 14 depending from the carriage. The hub may be solid, as in Figs. 3 and 4, or it may be of skeleton-form as shown in Fig. 5. Beneath this journal is a follower 15, straddling the cross shaft 16, and otherwise supported if necessary, and coöperating with the follower is a cam 17 fast on shaft 16.

As shown in Figs. 3 and 5, the shaft may be turned so as to cause the cam to lift the follower and through it the journal and turn-table, so that the turn-table is lifted clear of the carriage and then may be swung around, by hand or suitable mechanical means, not shown, so as to permit the column, log or other article to be turned end for end relatively to the boring tool, without lifting the article from the clamps and hence without the necessity of centering it anew. The turning of the turn-table is done by using the follower as a support for the journal, the two being separate pieces. After the turn-table has been turned, it is again dropped into coöperative relation in the carriage by turning shaft 16 and bringing the shorter radius of the cam uppermost, as in Fig. 4.

The invention admits of various structural changes and modifications of mechanism. For example, the carriage may be moved by other power than that shown, or it may be moved by hand. So, also, any other form of clamps may be used; and, further, the turn-table may be raised and lowered by other means than the illustrated mechanism.

What I claim is:—

1. In a wood boring machine, the combination of a bed, a carriage mounted thereon, a boring tool mounted on the bed and adapted to bore wooden columns, logs and the like lengthwise to render them hollow, means to move the carriage longitudinally of the bed toward and from the tool, a turn-table movable longitudinally with and axially upon the carriage and countersunk in it to maintain itself in alinement with the tool and provided with clamps to center and hold the article to be bored, a journal depending from the turn-table, a hub on the carriage in which the journal has a bearing, and means to raise the turn-table and its load above and clear of the carriage and thereby



- permit of the axial turning of the turn-table and its load end for end independently of the carriage, so as to present opposite ends of the article to be bored to the boring tool without releasing the said article from the clamps, and again sinking and thereby securing said turn-table in the carriage to be moved toward and away from the boring tool as before.
2. In a wood boring machine, the combination of a bed, a carriage mounted thereon, a boring tool mounted on the bed and adapted to bore wooden columns, logs and the like, lengthwise to render them hollow, means to move the carriage longitudinally of the bed toward and from the tool, a turn-table movable longitudinally with and axially upon the carriage and countersunk in it to maintain itself in alinement with the tool and provided with clamps to center and hold the article to be bored, a journal depending from the turn-table, a hub on the carriage in which the journal has a bearing, a follower beneath the journal, a cross-shaft in the bed straddled by the follower, and a cam on the cross-shaft engaging the follower and adapted to raise the turn-table and its load above and clear of the carriage and thereby permit of the axial turning of the turn-table and its load end for end independently of the carriage, so as to present opposite ends of the article to be bored to the boring tool without releasing the said article from the clamps, and again sinking and thereby securing said turn-table in the carriage to be moved toward and away from the boring tool.
- In testimony whereof I have hereunto set my hand this 23rd day of May A. D. 1908.
- GEORGE H. LAMBERT.
- Witnesses:  
FRED L. SALE,  
P. Y. JOHNSON.