

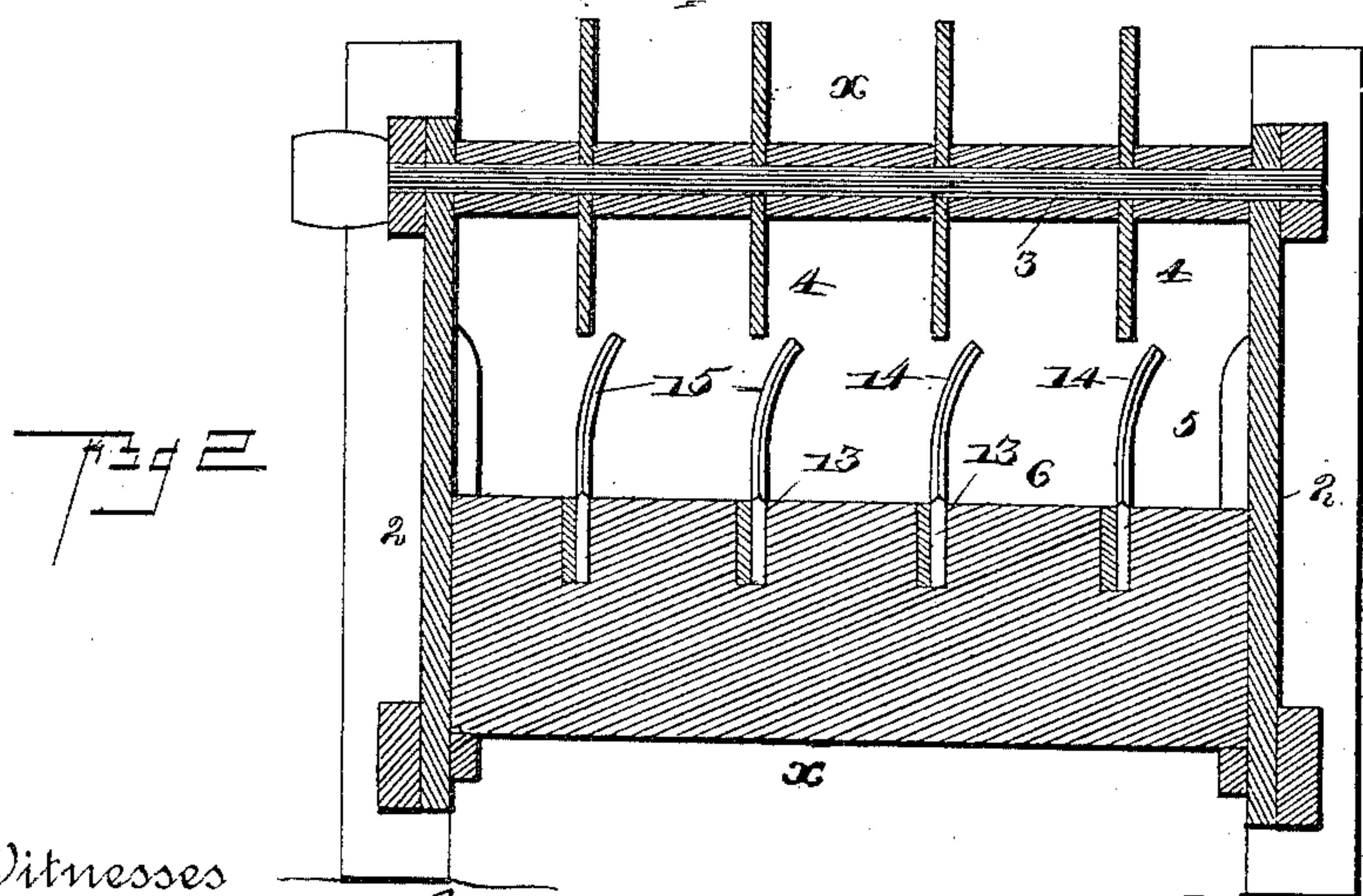
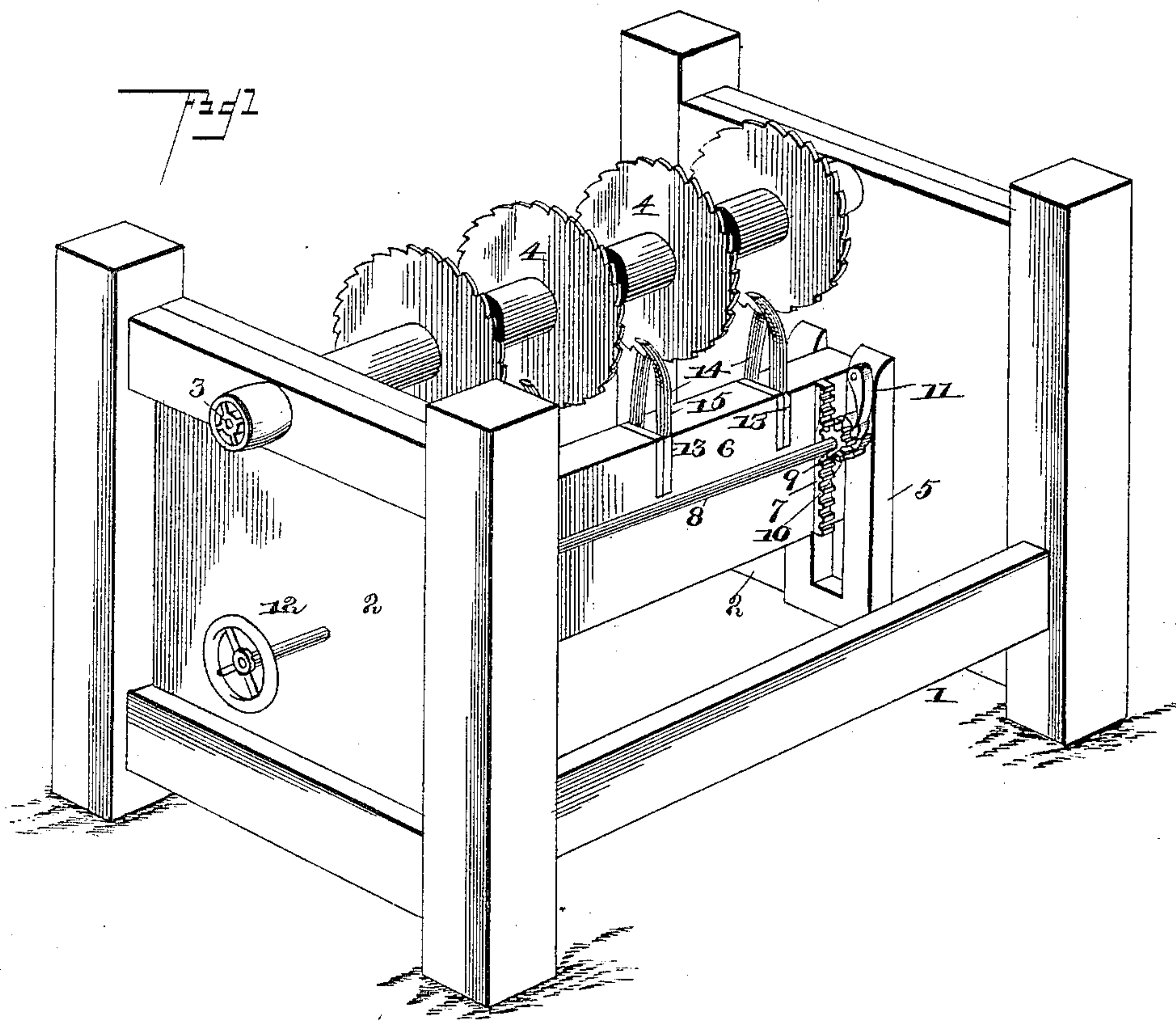
(No Model.)

2 Sheets—Sheet 1.

L. H. SHUFORD & W. F. FOWLER.  
DEVICE FOR CLEANING GIN SAWS.

No. 433,049.

Patented July 29, 1890.



Witnesses

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*Wm. Bagger*

Inventor

*Luther H. Shuford*  
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By their Attorneys

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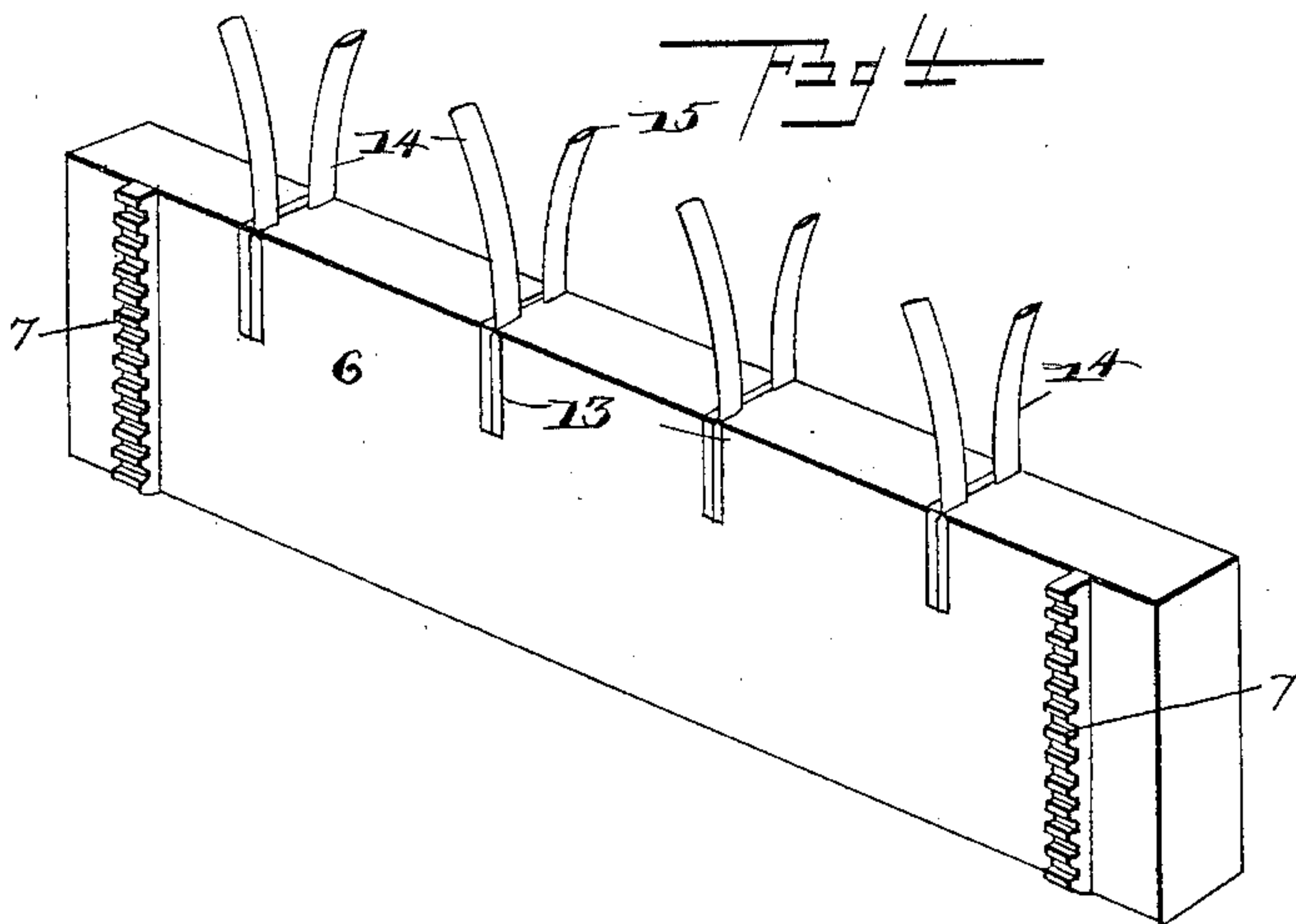
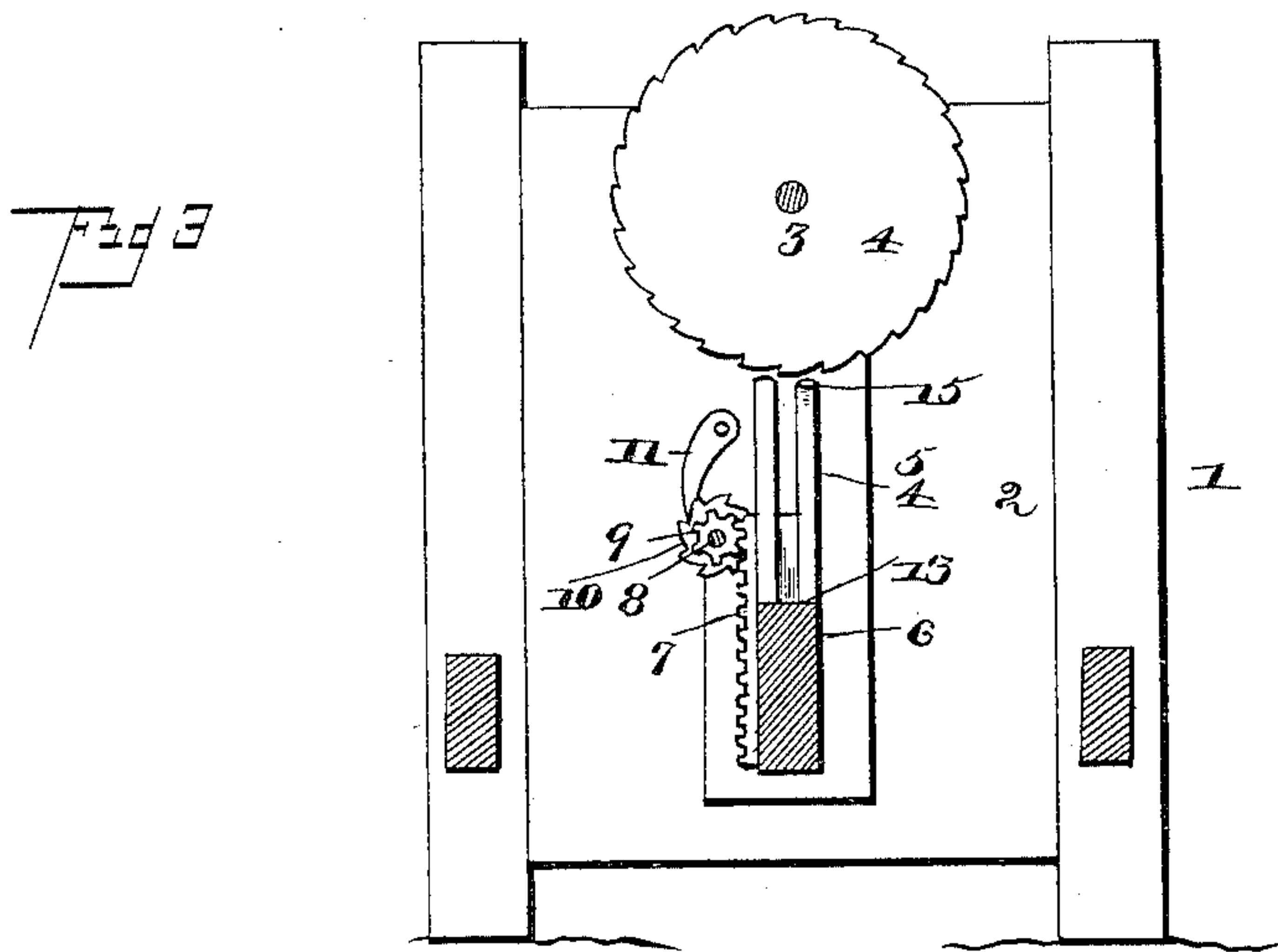
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# UNITED STATES PATENT OFFICE.

LUTHER HUNT SHUFORD AND WILLIE FLEWIN FOWLER, OF COURTLAND,  
MISSISSIPPI.

## DEVICE FOR CLEANING GIN-SAWS.

SPECIFICATION forming part of Letters Patent No. 433,049, dated July 29, 1890.

Application filed November 29, 1889. Serial No. 331,852. (No model.)

*To all whom it may concern:*

Be it known that we, LUTHER HUNT SHUFORD and WILLIE FLEWIN FOWLER, citizens of the United States, residing at Courtland, in the county of Panola and State of Mississippi, have invented a new and useful Improvement in Devices for Cleaning Gin-Saws, of which the following is a specification.

This invention relates to devices for cleaning gin-saws; and it has for its object to provide a device of this class which shall be adapted to be attached permanently to the frame of a cotton-gin in such a manner as to be vertically adjustable with relation to the saws, and by means of which the latter may be easily and quickly cleaned or freed from the gummy substances and other impurities which are apt to accumulate thereon, and which, if allowed to remain upon the saws, would not only seriously interfere with the operation of the latter, but also create sufficient friction to cause danger of fire resulting from such friction.

The invention consists in the improved construction, arrangement, and combination of parts, which will be hereinafter fully described, and particularly pointed out in the claims.

In the drawings, Figure 1 is a perspective view of a cotton-gin frame to which our invention has been applied. Fig. 2 is a vertical sectional view of the same, taken longitudinally through the saw-shaft, the shaft being in elevation. Fig. 3 is a vertical transverse sectional view taken on the line *x x* in Fig. 2. Fig. 4 is a perspective view showing the saw-cleaning device detached from the gin-frame.

Like numerals of reference indicate like parts in all the figures.

1 designates the frame of the cotton-gin of ordinary construction, the sides of which 2 2 are provided with bearings for the shaft or arbor 3, carrying the saws 4. The sides 2 2 are provided on their inner sides with flanges 5, affording bearings for a vertically-sliding block or cross-bar 6, which is provided on its front side and near its ends with vertical racks 7 7. 8 designates a shaft, which is journaled in the sides 2 2 of the frame in front of the vertically-sliding block 6, and which has at its ends spur-wheels 9, that engage the racks 7. The shaft 8 is provided at one end with

a ratchet-wheel 10, engaging a pawl 11, which is mounted pivotally upon one side of the gin-frame. The shaft 8 is also provided with a hand-wheel 12, by means of which it may be operated.

The vertically-adjustable block or cross-bar 6 is provided in its upper side with a series of transverse recesses 13, registering with the gin-saws. In each of these recesses is securely mounted a pair of upwardly-extending springs 14, of brass or any other suitable material, the upper ends of which are bent outwardly in opposite directions. These springs constitute the saw-cleaners, and they are provided with sharp edges 15, which readily remove such impurities as may accumulate upon the gin-saws.

When it is desired to clean the gin-saws by means of our improved cleaning device, the shaft 8 is operated by means of a hand-wheel 12 to raise the vertically-adjustable block 6 until the springs 14, which constitute the cleaners, come in contact with the sides of the gin-saws. The latter should be stationary while the block 6 is being raised, and the outwardly-bent upper ends of the cleaning-springs will cause the latter to engage the saws with ease and certainty. When the block 6 has been raised to the desired height, it remains supported by the pawl 11, engaging the ratchet-wheel 10 upon the shaft 8, the spur-wheels 9 of which engage the racks 7 upon the vertically-adjustable block. The gin-saws are now caused to rotate in a reversed direction, when the cleaning-springs will speedily remove any gum or other impurities—such as rust—which may adhere to the saws. The operation of cleaning having been completed, the pawl 11 is disengaged from the ratchet-wheel 10, and the shaft 8 is so manipulated as to lower the block 6, carrying the cleaners, thus leaving the gin in readiness for operation.

The advantages of our improved cleaning device will be readily appreciated. Heretofore gin-saws have usually been cleaned by hand, and the operation has consumed considerable time. By our invention the entire series of saws may be cleaned in a few moments and without danger to the operator in case the saws should accidentally start while



they are being cleaned. It will be particularly observed that both sides of the cleaning-springs are beveled to a sharp edge, as shown at 15. Such being the case no injury to the gin-saws will result in the event of their being started in a forward direction while the cleaning device is in position for operation.

Having thus described our invention, what we claim, and desire to secure by Letters Patent, is—

1. A gin-saw cleaner comprising an adjustable block having a series of cleaning-springs arranged in pairs and having sharp beveled edges and outwardly-bent outer ends, substantially as and for the purpose set forth.

2. The combination, with a gin-saw frame having vertical flanges upon its inner sides, of a vertically-sliding block having the upwardly-extending cleaning-springs arranged in pairs and having sharp beveled edges and outwardly-bent outer ends, and mechanism for raising and lowering said block and for retaining it in any position to which it may be adjusted, substantially as and for the purpose set forth.

3. The combination, with a gin-saw frame having vertical flanges upon its inner sides, of the vertically-sliding block having the upwardly-extending cleaning-springs having sharp beveled edges and outwardly-bent outer ends and provided with vertical racks on its front side, a shaft mounted transversely in the gin-saw frame in front of said block and having spur-wheels engaging the racks upon the latter, a ratchet-wheel mounted upon the said shaft, a pawl pivoted to the gin-frame and engaging the said ratchet-wheel, and a hand-wheel mounted upon the outer end of said shaft, all combined, arranged, and operating substantially as and for the purpose set forth.

In testimony that we claim the foregoing as our own we have hereto affixed our signatures in presence of two witnesses.

LUTHER HUNT SHUFORD.  
WILLIE FLEWIN FOWLER.

Witnesses:

R. F. WILEY,  
B. R. SHARRELL.