

No. 774,125.

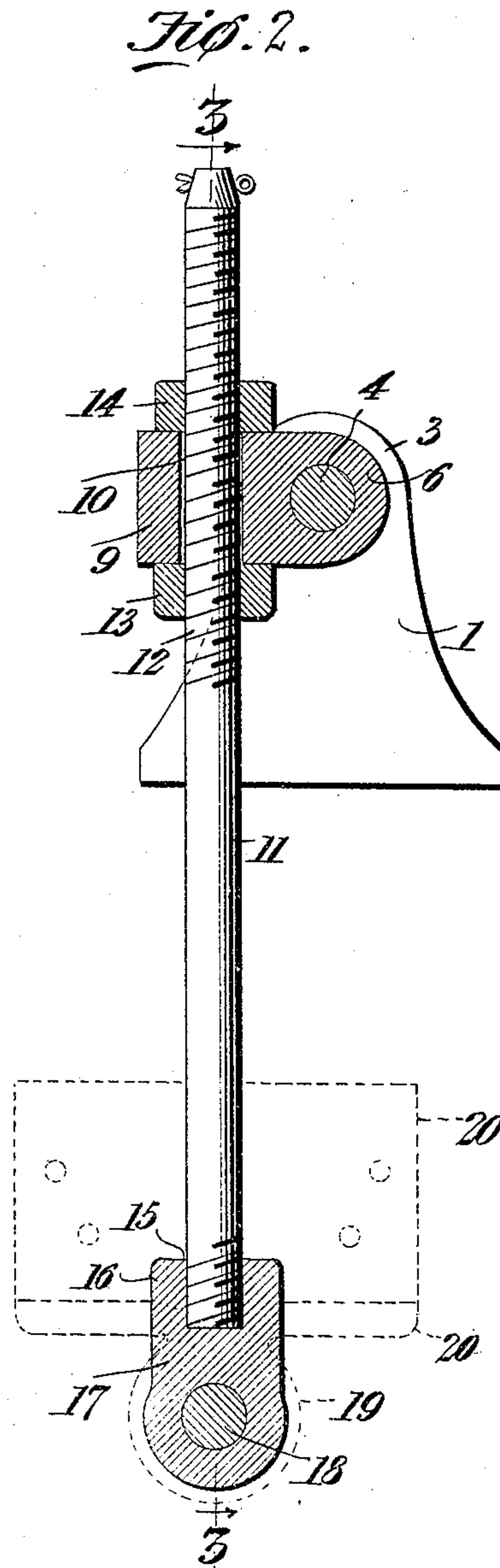
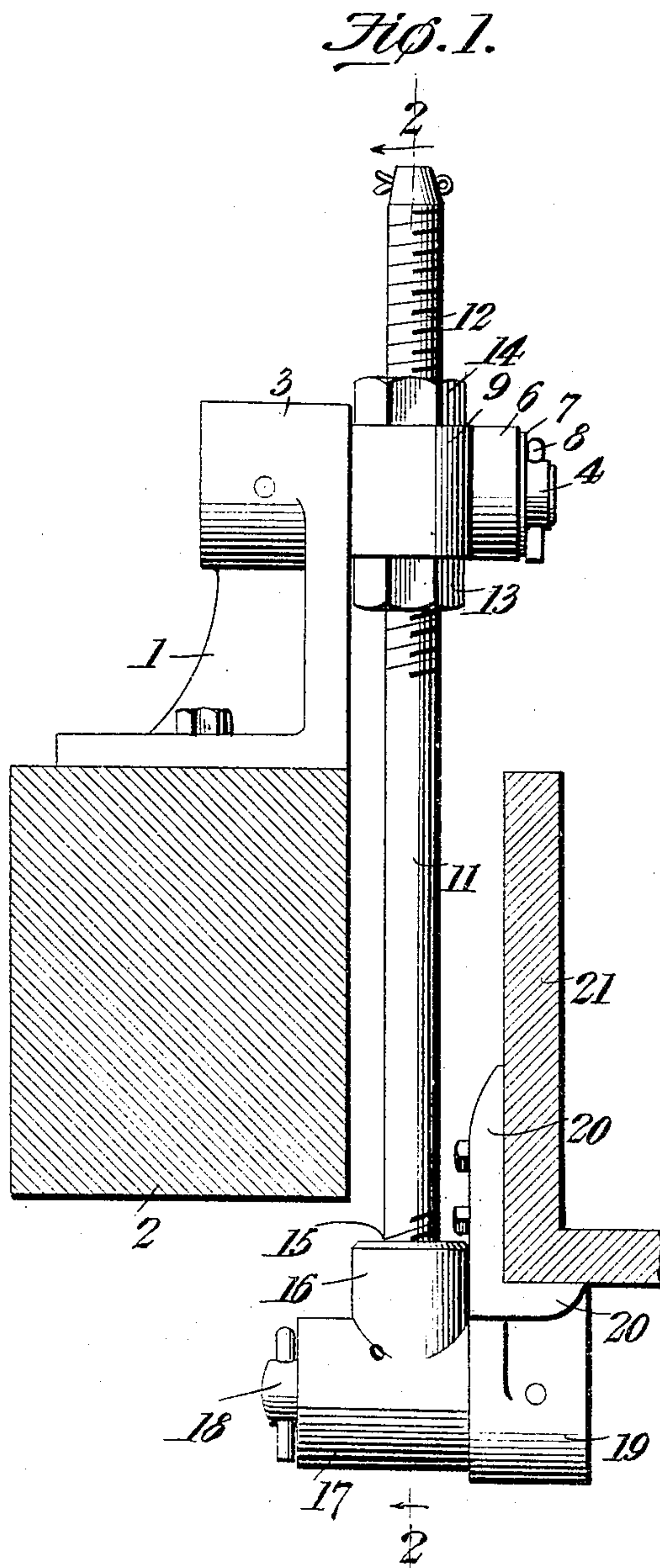
PATENTED NOV. 1, 1904.

J. C. WINDER.
SHAKER HANGER.

APPLICATION FILED MAY 14, 1904.

NO MODEL.

2 SHEETS—SHEET 1.



Witnesses
E. H. Stewart
Wm. Ragger

James C. Winder
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Attorneys

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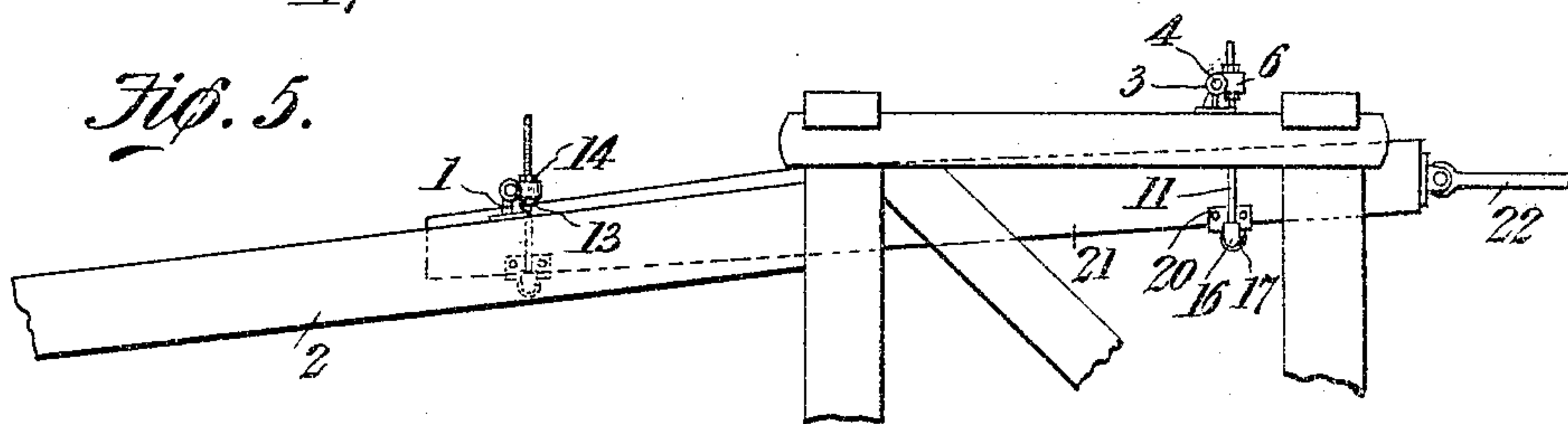
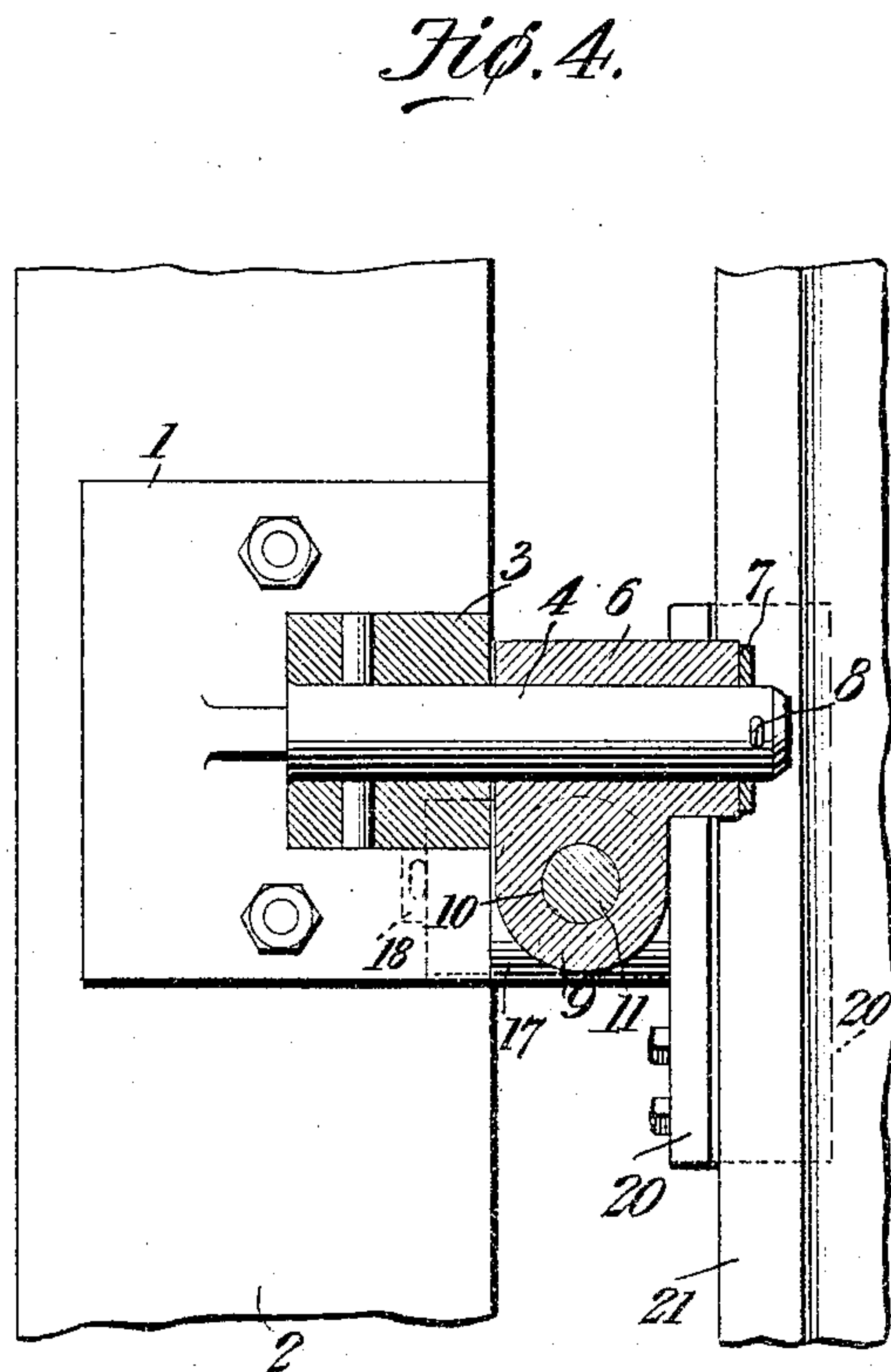
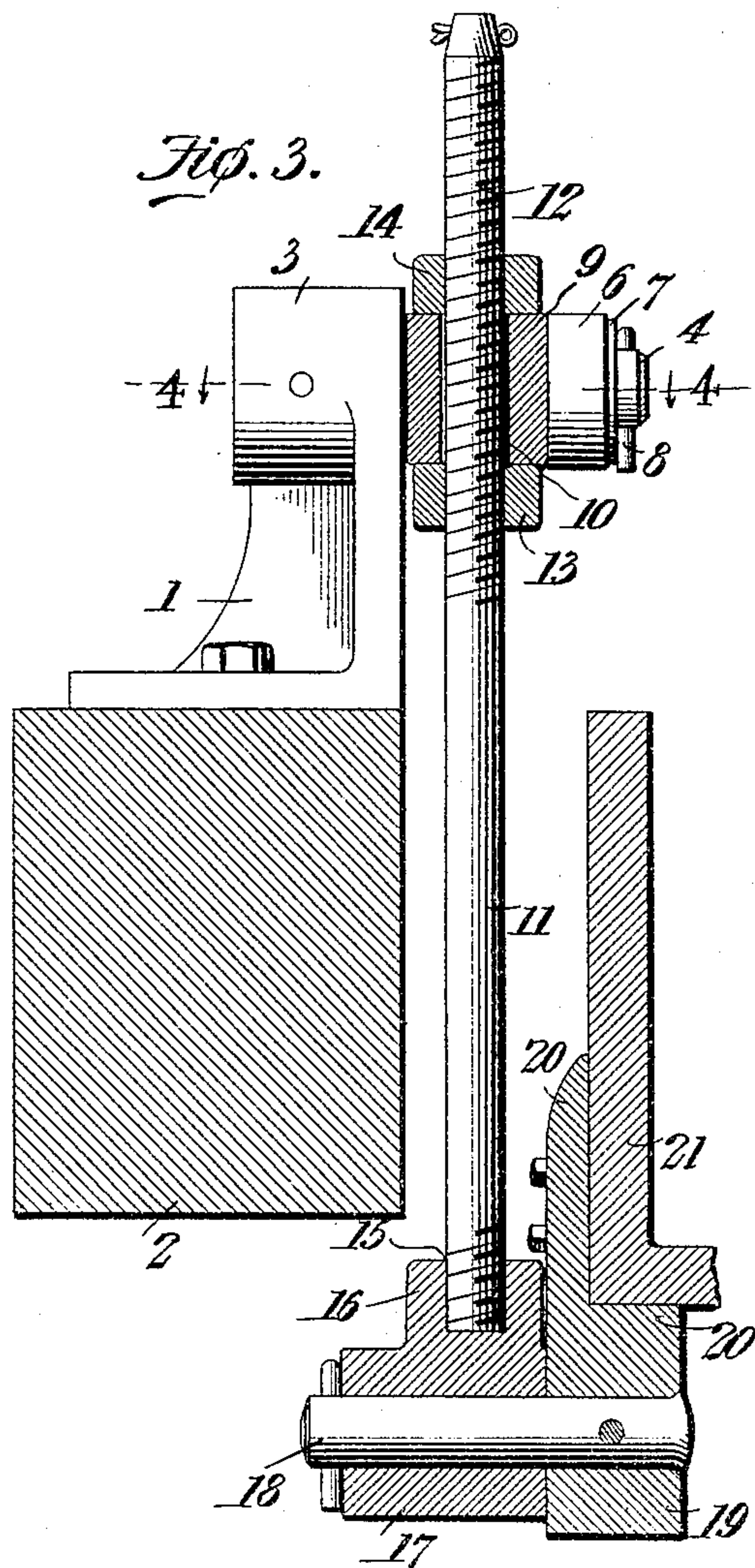
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UNITED STATES PATENT OFFICE.

JAMES C. WINDER, OF EASTPOINT, GEORGIA, ASSIGNOR TO ATLANTA
UTILITY WORKS, INC., OF EASTPOINT, GEORGIA.

SHAKER-HANGER.

SPECIFICATION forming part of Letters Patent No. 774,125, dated November 1, 1904.

Application filed May 14, 1904. Serial No. 207,993. (No model.)

To all whom it may concern:

Be it known that I, JAMES C. WINDER, a citizen of the United States, residing at Eastpoint, in the county of Fulton and State of Georgia, have invented a new and useful Shaker-Hanger, of which the following is a specification.

This invention relates to shaker-hangers or devices for suspending shakers and shaking-screens in order that a shaking or combined vertically and horizontally reciprocatory motion may be imparted to such shakers or screens.

My improved shaker-hanger, while capable of being utilized in all places where shakers and shaking-screens are employed, has been specially designed for use in connection with cotton-seed-oil machinery and for special application to the shakers in which the separation of the hulls from the meats of the cotton-seeds is effected.

Among the principal objects of the invention are to provide a device of the class referred to which shall possess superior advantages in point of simplicity, durability, and general efficiency.

Other objects are to provide a device which in operation shall impart a distinct lifting motion in addition to the oscillating motion, the object being to toss up and carry forward the products of the shaker at the same time by reason of the double motion imparted.

A further object is to reduce friction and consequent loss of power, as well as wear and tear upon the machinery, to a minimum.

Another object is to provide for adjustment at each point where the shaker is supported by the improved hanger, so that the shaker may be perfectly balanced and adjusted, thereby reducing the vibration to which this class of machinery is in practice subjected.

With these and other ends in view, which will readily appear as the nature of the invention is better understood, the same consists in the improved construction and novel combination and arrangement of parts, which will be hereinafter fully described, and particularly pointed out in the claims.

In the accompanying drawings has been

illustrated a simple and preferred form of embodiment of the invention, it being understood, however, that no limitation is necessarily made to the precise structural details therein exhibited, but that the right is reserved to any changes, alterations, and modifications which come fairly within the scope of the invention and which may be resorted to without departing from the spirit or sacrificing the utility of the same.

In said drawings, Figure 1 is a side view of the improved shaker-hanger. Fig. 2 is a vertical sectional view taken on the line 2 2 in Fig. 1. Fig. 3 is a vertical sectional view taken on the line 3 3 in Fig. 2. Fig. 4 is a horizontal sectional view taken on the line 4 4 in Fig. 3. Fig. 5 is a side elevation, reduced, and with parts broken away, showing a part of a shaker-frame and shaker suspended therein by the improved hangers.

Corresponding parts in the several figures are indicated by similar numerals of reference.

In carrying out the invention a standard is provided, which is adapted to be bolted or otherwise firmly secured upon one of the side beams 2 of the shaker-frame. This standard is provided at its upper end with a head 3, in which is secured a laterally-extending pin or shaft 4. The pin or shaft 4 supports a rocking head, which includes a horizontally-disposed sleeve 6, journaled directly upon the pin 4, and held in position upon the latter by means of a washer 7 and a cotter-pin 8. Upon the sleeve 6 is formed a laterally-extending projection 9, having a vertical bore 10, which is disposed at right angles to the bore of the sleeve 6. Through this bore or perforation extends the upper end of a stem 11, having a screw-threaded portion 12, carrying nuts 13 and 14, abutting upon the lower and upper sides of the extension 9, thereby retaining the stem 11 in adjusted position with relation to the rocker-head. The lower end of the stem 11 is screw-threaded and extends into a threaded socket 15, formed in a boss 16, upon the upper side of a sleeve 17. This sleeve is journaled upon a pin or shaft 18, extending laterally from a casting 19, provided with flanges 20 at right angles to each other, which said

flanges afford a seat for a shaker 21, which is to be bolted to or otherwise suitably connected with said flanges.

In practice the shaker is to be suspended by 5 and supported upon a plurality of the improved hangers, of which at least two are usually to be employed at each side of the shaker, as will appear by reference to Fig. 5 of the drawings. Means, preferably including a pit- 10 man 22, are usually to be employed for the purpose of imparting to the shaker a reciprocatory motion from some suitable source of power.

The operation and advantages of this inven- 15 tion will be readily understood from the foregoing description, taken in connection with the drawings hereto annexed, by those skilled in the art to which it appertains. The shaker, as will be readily understood, is enabled by 20 the hangers, each of which includes an upper and a lower joint, to submit to the reciprocatory movement imparted thereto, and the shaker, being suspended practically in horizontal alinement with the lower ends of the 25 stems of the hangers, will as the latter oscillate upon the pins 4 partake of an oscillatory or combined horizontal and vertical reciprocating movement. Owing, however, to the fact that the stems are connected with the 30 rocking heads at a distance from the axes of the latter, the shaker will as the hanger-stems oscillate be subjected to a distinct upward throw or movement, with the effect that the material resting upon the shaker will be sub- 35 jected to a distinct upward toss, whereby separation is facilitated, and the materials are at the same time caused to move forwardly upon the shaker. This feature of the device is found extremely useful and valuable in expediting 40 the separation of various materials.

Owing to the vertically-adjustable nature of the connection between the hanger-stems and the rocking heads, proper adjustment may

readily be had at each point where the shaker is supported by the hangers, and this is im- 45 portant not only in order to provide for the proper leveling of the shaker, but it may also be utilized for the purpose of adjusting the shaker at any desired tilt or slant, which may obviously be accomplished by lengthening the 50 stems of the hangers at one end of the shaker and shortening the stems at the opposite end.

Having thus described the invention, what is claimed is—

1. A shaker-hanger consisting of a standard 55 having a laterally-extending pin, a rocking head including a sleeve journaled upon said pin and a lateral protuberance bored at right angles to the bore of the sleeve, a stem extended through and adjustably secured in said 60 bore, a sleeve carried by the lower end of said stem, and a shaker-supporting fastening having a pin journaled in said sleeve and provided with flanges constituting a seat for a 65 shaker-casing.

2. The combination of a frame, a shaking- 70 screen, and hangers for said screen, each including a standard supported upon the frame and having a laterally-extending pin, a rocking head including a sleeve journaled upon 75 said pin and a lateral protuberance bored at right angles to the bore of the sleeve, a stem extending through and adjustably secured in said bore, a sleeve carried by the lower end of said stem, and a shaker-supporting casting 75 having a pin journaled in said sleeve and provided with flanges forming a seat for the shaker-casing.

In testimony that I claim the foregoing as my own I have hereto affixed my signature in 80 the presence of two witnesses.

JAMES C. WINDER.

Witnesses:

W. H. BARPIELL,
J. L. HEAD.