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Patented Feb. 20, 1900.

L. RENZ.

FAN ATTACHMENT FOR CHAIRS.

(Application filed June 29, 1899.)

(No Model.)

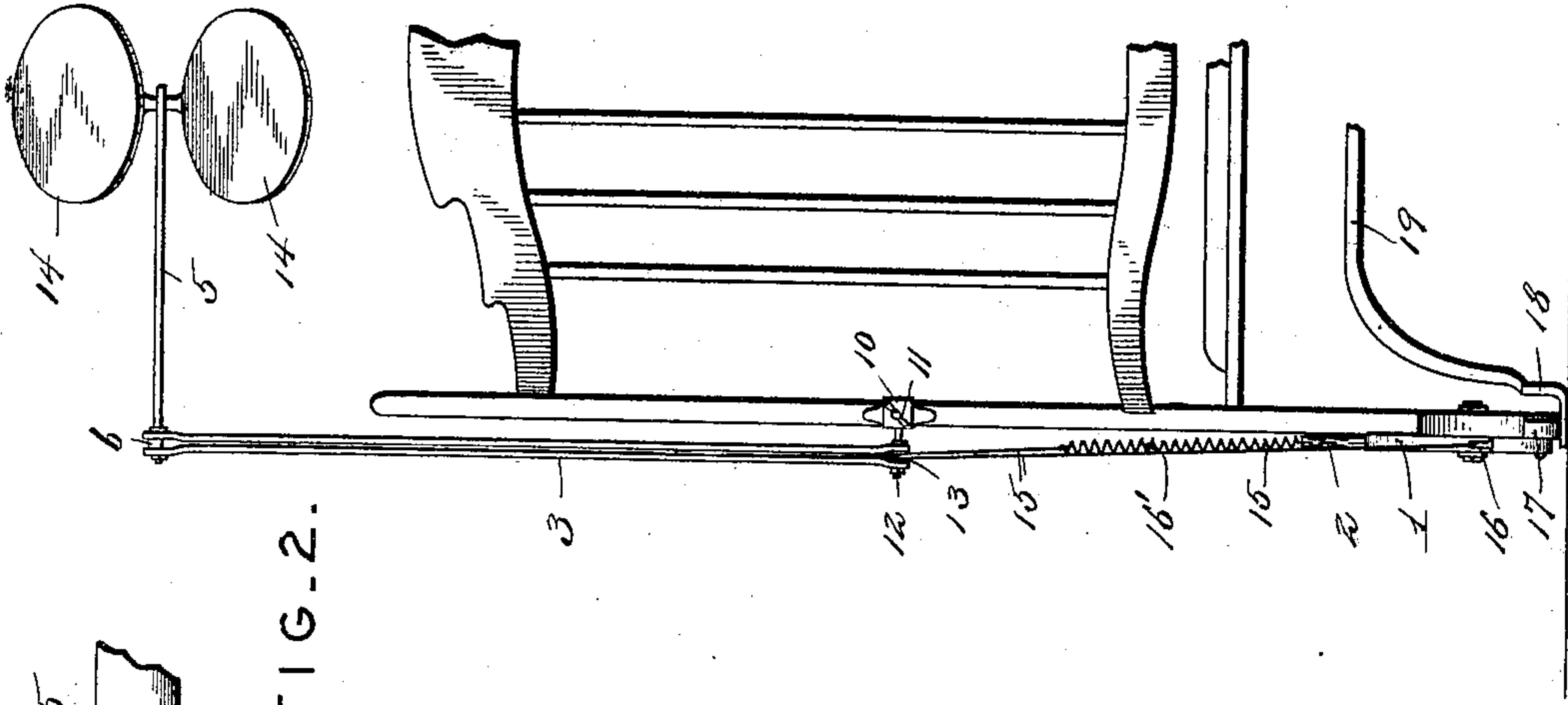


FIG. 2.

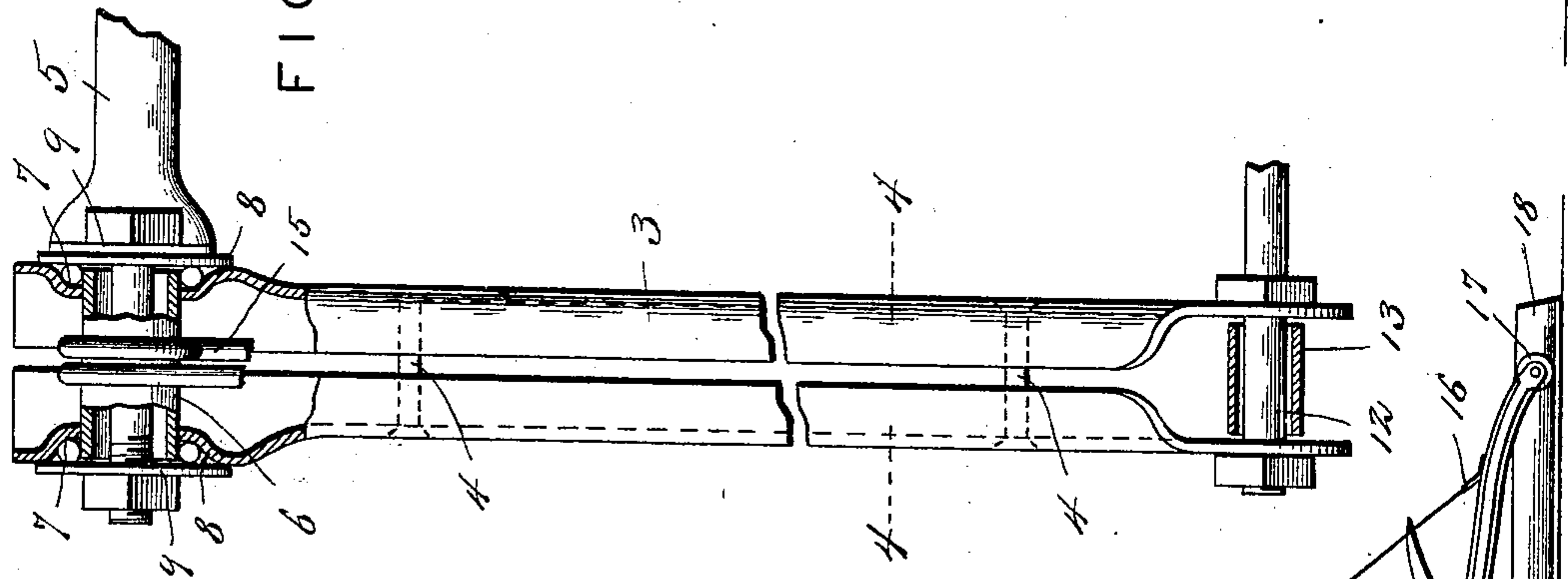


FIG. 3.

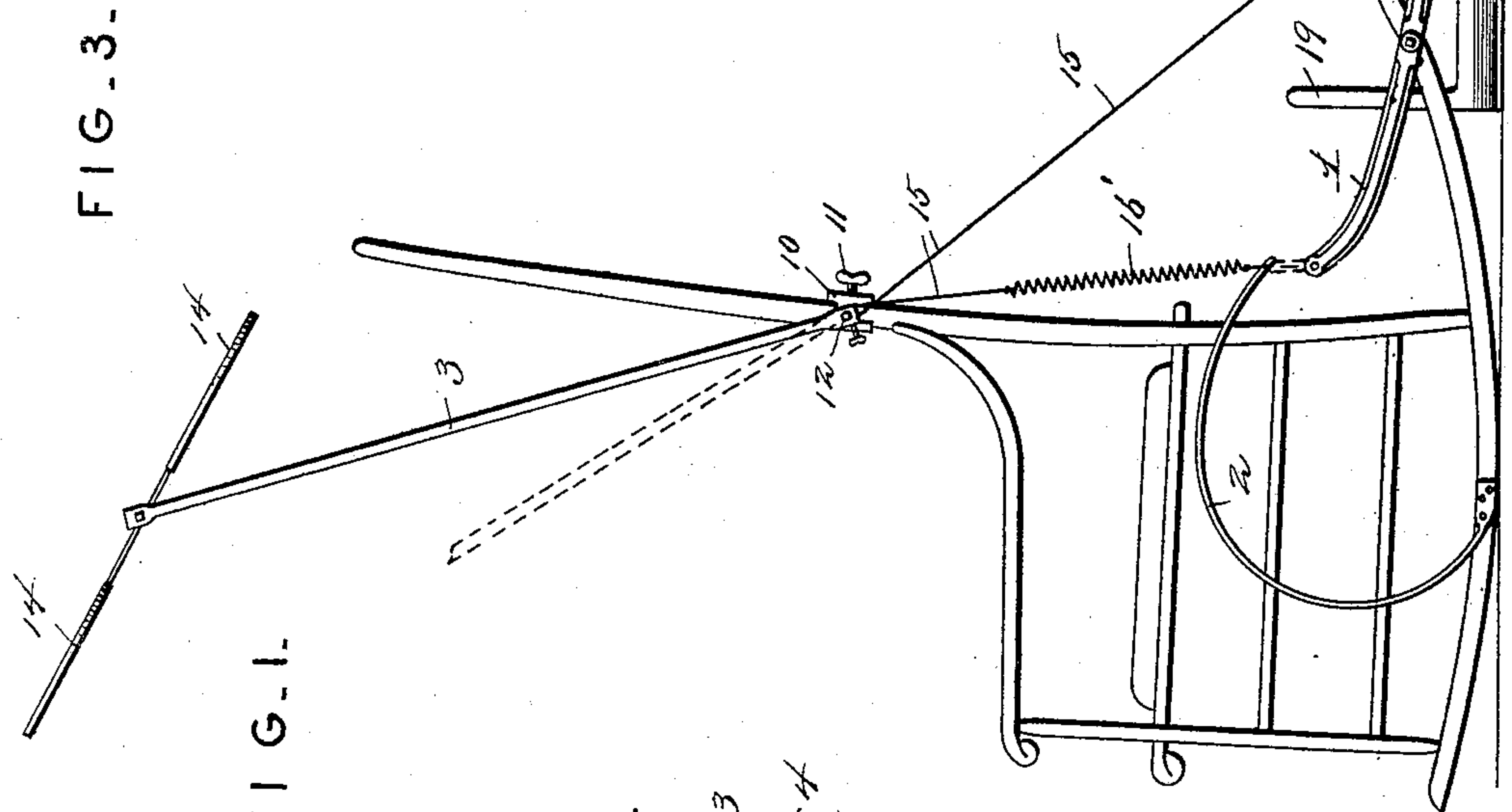
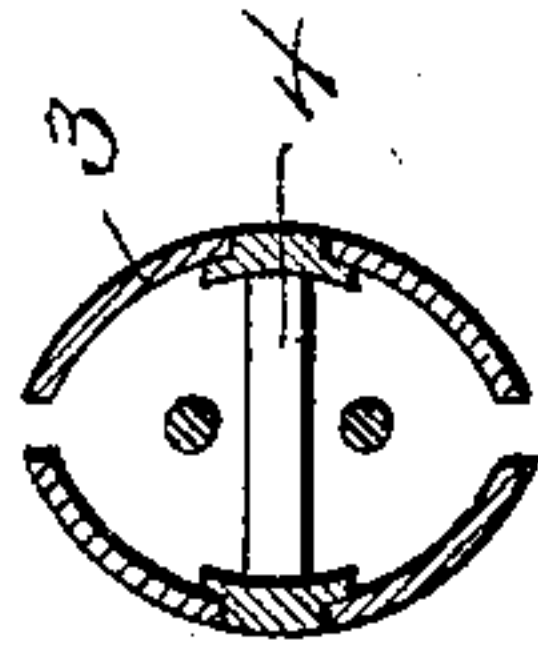


FIG. 1.

FIG. 4.



Witnesses

H. L. Amel.  
H. A. Nau

Inventor

Ludwig Renz.  
By V. D. Stockbridge.  
Attorney



# UNITED STATES PATENT OFFICE.

LUDWIG RENZ, OF LOUISVILLE, KENTUCKY.

## FAN ATTACHMENT FOR CHAIRS.

SPECIFICATION forming part of Letters Patent No. 643,979, dated February 20, 1900.

Application filed June 29, 1899. Serial No. 722,259. (No model.)

*To all whom it may concern:*

Be it known that I, LUDWIG RENZ, a citizen of the United States, residing at Louisville, in the county of Jefferson and State of Kentucky, have invented a certain new and useful Fan Attachment for Furniture, of which the following is a specification, reference being had therein to the accompanying drawings.

This invention relates to fan attachments for furniture, and is especially applicable to rocking-chairs.

The invention consists in certain combinations hereinafter described and claimed.

In the drawings, Figure 1 is a side elevation of a common or conventional form of rocking-chair with my attachment applied thereto. Fig. 2 is a rear elevation of the same. Fig. 3 is a longitudinal section of a fan-shaft-supporting arm, showing the means of coupling the fan-shaft with the support and of coupling the support to a bracket attached to one side of the chair. Fig. 4 is a cross-section on the line 4 4 of Fig. 3.

1 is a lever pivoted intermediate of its ends, and 2 is a spring for operating the lever in one direction. As shown in the drawings, the lever 1 is pivotally connected with the rocker of a chair, as shown.

3 is a hollow fan-shaft-supporting arm built up of two concavo-convex side pieces held together by means of suitable spacing-bolts 4 4. The upper end or extremity of the supporting-arm is provided with a bearing for a fan-operating shaft 5, the shaft carrying within the bearing a drum or pulley 6. Between the pulley 6 and the bearing there is a ball-race 7, in which are secured antifriction balls or rollers by means of flanges 8 8 and washers 9 9. The supporting-arm is pivotally connected with a clamp-bracket 10, attached to one side of the chair, the bracket being held to the arm or standard of the chair by means of a set-screw 11. The arm is adapted to be clamped and held in a vertical or an inclined position on a stud of the bracket by means of a clamping-bolt 12. The bolt 12 also carries between forks at the lower end of the supporting-arm a guide-pulley 13. The fan-shaft 5 carries any suitable number of fan-wings 14 14.

15 is an operating-cord extending from an eye 16 near the outer extremity of lever 1, past sheave or pulley 13, and is wrapped around

drum or pulley 6, and thence passes back through hollow supporting-arm, past pulley 13, to the inner extremity of lever 1.

By this construction and combination of parts vibration of the lever 1 through rocking the chair operates through the cord 15 and pulley 6 to rotate or operate the fans 14 14 backward and forward, and thereby produce air-currents for fanning purposes. It should be noted that the bracket 10 is adjustable up and down upon the chair-post or in any desired direction around the axis of the post, whereby the fan-shaft may be adjusted to any angle, so as to operate the fan-wings 14 in a plane with the back of the chair or at an angle therewith, as may be desired. It should also be noted that the supporting-arm 3 is adjustable backward and forward, so as to bring the fans into any desired position forward or back of the plane of the back of the chair.

In order that the bracket 10 may be adjusted up or down, and thereby vary the tension upon the operating-cord, I interpose between the extremities of the cord a coiled spring 16', the purpose of this being to give a yielding or elastic connection to the cord in order to admit of adjustments and preserve a proper tension over the operating-pulley of the fan-shaft. It should be observed that the fan-shaft-supporting arm, built up in the manner shown and described, provides a rigid and firm support and at the same time furnishes a guard to protect and conceal the operating-cord, and by reason of the slots the cord is readily arranged and adjusted in its operative position. In order to avoid wear on the carpet or a floor, I provide the outer extremity of the lever 1 with a caster 17, and in order to further protect the carpet I provide a guide-trough 18 for the pulley, consisting of a strip of channeled sheet metal, and, furthermore, in order that this may be moved with the chair the trough is formed with a yoke or bar 19, extending across above the rockers and lever 1 to the outside of the other rocker, where it is provided with a foot that rests upon the floor.

Obviously this attachment may be connected with any kind of a chair, and instead of vibrating the lever 1 through the medium of rocking backward and forward the lever 1 may be operated by a foot-piece in the man-



ner of a treadle without departing from the main part of my invention.

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

1. The combination of a chair and a fan attachment, consisting of a vibrating lever, a fan-shaft-supporting arm vertically, axially and radially adjustable, a fan-shaft connected with the arm, a cord wrapped around a drum on the fan-shaft extending to opposite ends of the lever, and a lever-operating spring, substantially as described.

2. The combination of a rocking-chair, a vibrating lever connected therewith, a fan-shaft-supporting arm vertically, axially and radially adjustable with relation to the chair, a drum or pulley connected with the fan-shaft, an operating-cord wrapped around the drum having an elastic or yielding section connected at opposite ends to opposite ends of the lever, and a lever-operating spring, substantially as described.

3. The combination of a rocking-chair, a vi-

brating lever connected with said chair, a slotted hollow fan-shaft-supporting arm, a fan-shaft connected with the supporting-arm through ball-bearings, an operating drum or pulley connected with the shaft, a cord wrapped around the drum connected with opposite ends of the lever, and a lever-operating spring, substantially as described.

4. In fan attachments for chairs having a horizontally-arranged fan-shaft carrying an operating drum or pulley adapted to be operated by a cord belt, the combination with the chair and fan-shaft, of a slotted hollow arm for supporting the fan-shaft, guarding and concealing the operating-cord and providing for the ready adjustment of the cord in operative position, substantially as described.

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

LUDWIG RENZ.

Witnesses:

MINNIE M. POPE,  
ALBERT A. STOLL.