

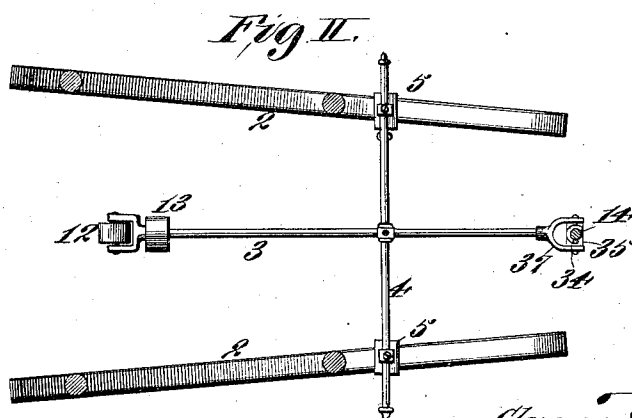
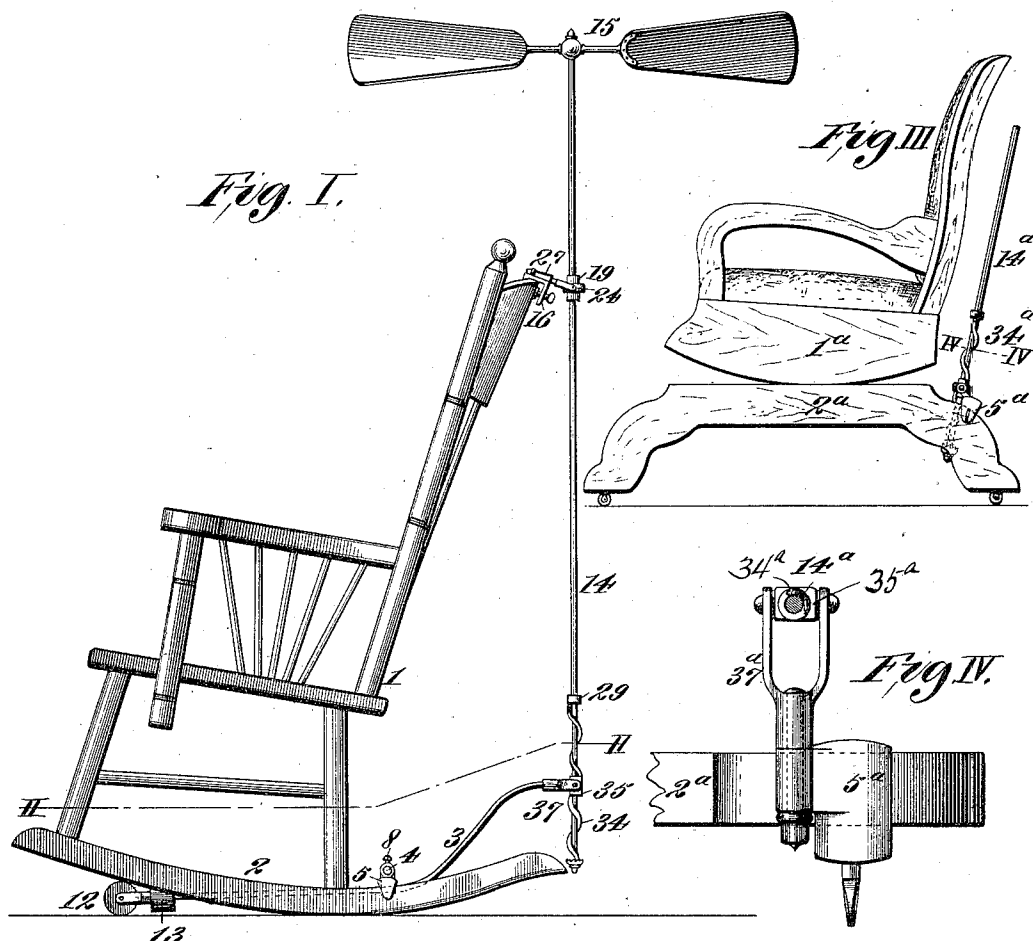
(No Model.)

2 Sheets—Sheet 1.

C. SCHURMANN & J. J. BROPHY.
FAN ATTACHMENT FOR ROCKING CHAIRS, &c.

No. 566,476.

Patented Aug. 25, 1896.



Witnesses:
E. H. King
D. F. May

Inventors:
Clemens Schurmann,
John J. Brophy,
By *Angus Brophy* Attys

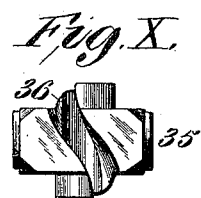
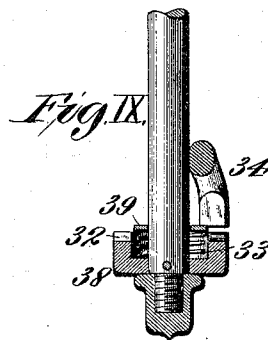
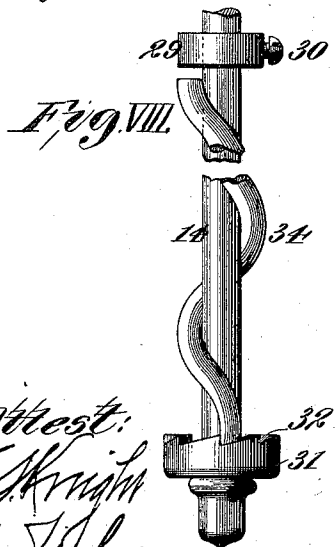
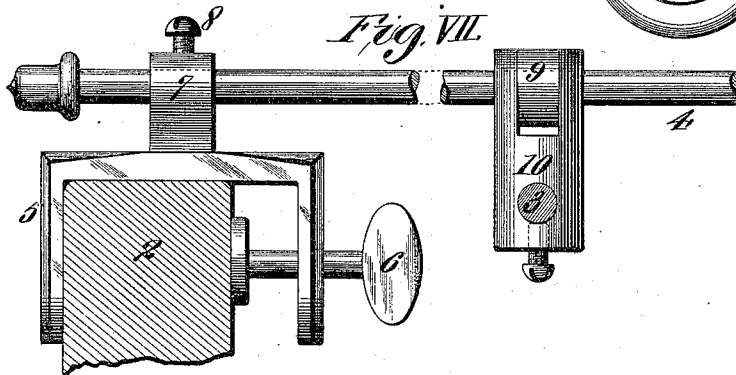
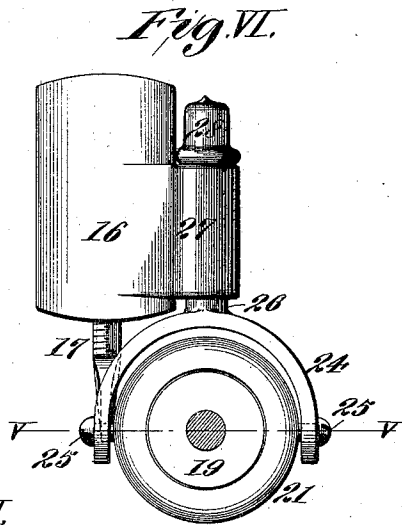
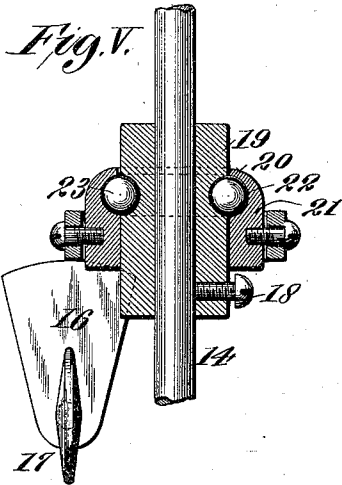
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2 Sheets—Sheet 2.

C. SCHURMANN & J. J. BROPHY.
FAN ATTACHMENT FOR ROCKING CHAIRS, &c.

No. 566,476.

Patented Aug. 25, 1896.



Attest:
E. Knight
N. Finley

Inventors,
Clemens Schurmann
John J. Brophy,
By *Knight & Bro.*
Attys.

UNITED STATES PATENT OFFICE.

CLEMENS SCHURMANN AND JOHN J. BROPHY, OF ST. LOUIS, MISSOURI.

FAN ATTACHMENT FOR ROCKING-CHAIRS, &c.

SPECIFICATION forming part of Letters Patent No. 566,476, dated August 25, 1896.

Application filed June 12, 1896. Serial No. 595,314. (No model.)

To all whom it may concern:

Be it known that we, CLEMENS SCHURMANN and JOHN J. BROPHY, of the city of St. Louis, State of Missouri, have invented a certain new and useful Improvement in Fan Attachments for Rocking-Chairs, &c., of which the following is a full, clear, and exact description, reference being had to the accompanying drawings, forming part of this specification.

Our invention relates to mechanism for operating fans through the movement of rocking chairs or such like objects; and our invention consists in features of novelty hereinafter fully described, and pointed out in the claims.

Referring to the drawings, Figure I shows in side elevation a common rocking-chair with our improved fan and operating mechanism attached thereto. Fig. II illustrates a horizontal section taken on line II II, Fig. I. Fig. III shows a side elevation of a platform rocking-chair and illustrates the attachment of our device to such a chair. Fig. IV illustrates a top view of the means of attachment of the fan-operating mechanism to a platform rocking-chair, and shows the fan-carrying shaft and spiral rod in cross-section, taken on line IV IV, Fig. III. Fig. V illustrates a vertical section taken on line V V, Fig. VI. Fig. VI is a top view of the clamp by means of which the fan-carrying shaft is connected to the back of the rocking-chair and of the bearing of said shaft, and shows the fan-carrying shaft in cross-section. Fig. VII is an enlarged detail view of the cross-bar and clamp by which the rocking-rod is supported. Fig. VIII is an enlarged detail view of the lower end of the fan-carrying shaft and the spiral rod which surrounds and operates said shaft. Fig. IX is an enlarged detail view showing the lower end of the fan-carrying shaft in elevation and showing in section the recessed toothed collar on its lower end and the spring that holds the spiral rod elevated on its return after actuation to drive the fan. Fig. X is a side view of the traveler which traverses the spiral rod on the fan-carrying shaft. Fig. XI is a top view of the traveler.

In the drawings, 1 and 1^a designate, respectively, a common rocking-chair and a platform rocking-chair. These chairs are pro-

vided, respectively, with rockers 2 and platform 2^a.

3 designates a rocking-rod which has connection with the rockers of the chair 1 by means of a cross-rod 4, that extends from rocker to rocker and is attached to the rockers by means of screw-clamps 5, having set-screws 6. The cross-rod 4 passes through ears 7 on the clamps 5 and is held from turning by set-screws 8. Upon the central portion of the rod 4 is a collar 9, upon the two sides of which the arms of a forked block 10 loosely hang upon the rod 4. The rocking-rod 3 passes through the forked block 10 and is rigidly held therein by a set-screw 11. At the forward end of the rocking-rod 3 a roller 12 is journaled, and on the rod is a weight 13, the weight being provided for the purpose of more quickly bringing the forward end back to the floor when it has been elevated.

14 designates the fan-carrying shaft, upon the upper end of which is the fan 15. The fan-carrying shaft is connected to the back of the chair by means of a clamp 16, provided with a set-screw 17. Rigidly secured to the shaft 14, by means of a set-screw 18, is a cylindrical bearing-block 19, that is provided in its outer surface with an annular groove 20.

21 designates a collar, on the interior surface of which is an annular groove 22 of a corresponding size and depth to the groove 20. The grooves 20 and 22 are alined with each other and receive balls 23, and the upper end of the collar 21 is curved over the balls 23 and retains them in place. The collar 21 is connected to the clamp 16 in the following manner: 24 designates a stirrup, the two arms of which are loosely connected to the collar 21 by screws 25. The stirrup carries a pivot-pin 26, that works loosely in an ear 27 on the clamp 16 and is held therein by a nut 28. By the employment of the arrangement just described it will be seen that a ball-bearing of simple and efficient construction is provided, thereby permitting of easy and free action of the fan-carrying shaft, and the stirrup 24 and pivot-pin 26 allow of universal movement into different positions of the fan-carrying shaft, so that the clamp 16 may be located at any desired point along the back of the chair.

On the fan-carrying shaft 14, near its lower

end, is a collar 29, held by a set-screw 30. The lower surface of this collar is smooth. On the lower end of the shaft 14 is rigidly secured a collar 31, provided with teeth 32 and an annular recess 33. On the shaft 14, between the collars 29 and 31, is a spiral rod 34, the lower end of which spiral rod is adapted to engage with the teeth 32 on the collar 31. 35 designates a traveler provided with a spiral groove 36. This traveler is arranged to operate on the spiral rod 34. The rocking-rod 3 is loosely connected to the traveler 35 at its rear end through the medium of a stirrup 37. 38 designates a coiled spring located in the recess 33, and seated on this spring is a washer 39, on which bears the lower end of the spiral rod 34. This spring and the washer located above it hold the spiral rod out of contact with the teeth 32 when the traveler is returning after the actuation of the spiral rod to drive the fan-carrying shaft.

The operation of the device is as follows: Upon the backward motion of the chair the traveler 35 is carried upward on the spiral rod 34 and the lower end of the spiral rod travels freely without engagement with the teeth 32 on the collar 31, being held from such engagement by the spring and washer 38 39. On the forward movement of the chair the traveler forces the spiral rod down into engagement with the teeth 32, and the traveler being held from rotary motion causes the spiral rod to turn, and it being in engagement with one of the teeth 32 of the collar 31, which is rigidly attached to the fan-carrying shaft, the fan-carrying shaft is compelled to travel with the spiral rod, and the fan is thereby propelled. The action of the device may thus be kept up continuously, as on each backward motion of the chair the spiral rod is brought out of engagement with the teeth 32 and the shaft 14 is free to continue its travel, whereas on each forward motion of the chair it receives new impetus in the manner described.

In the forms of connection shown in Figs. III and IV to a platform rocking-chair the stirrup 37^a is loosely pivoted to a clamp 5^a, attached to the base of the chair.

We claim as our invention—

1. The combination of a shaft, a toothed collar carried by said shaft, a plain surface-collar carried by said shaft, a spiral rod loosely surrounding said shaft between said collars, and adapted to engage said toothed collar, a traveler adapted to traverse said spiral rod, and means for moving said traveler, substantially as described.

2. In a fan attachment for rocking-chairs, the combination of a fan-carrying shaft, a fan mounted on said shaft, a toothed collar carried by said shaft, and a plain surface-collar carried by said shaft, a spiral rod loosely surrounding said shaft between said collars, and adapted to engage said toothed collar, a traveler adapted to traverse said spiral rod, and a rocking rod provided with a connection through means of which said rod may be attached to a chair, substantially as described.

3. In a fan attachment for rocking-chairs, the combination of a fan-carrying shaft, a fan mounted on said shaft, a toothed collar carried by said shaft, a plain surface-collar carried by said shaft, a spiral rod loosely surrounding said shaft between said collars, and adapted to engage said toothed collar, a traveler adapted to traverse said spiral rod, a rocking-rod connected to said traveler, a roller carried at the forward end of said rocking-rod, a weight upon the forward end of said rocking-rod, a cross-rod by which said rocking-rod is supported, said cross-rod being provided with clamps adapted to be secured to an available portion of a chair, substantially as described.

4. In a fan attachment for rocking-chairs, the combination of a fan-carrying shaft, a fan mounted on said shaft, a toothed collar carried by said shaft, a plain surface-collar carried by said shaft, a spiral rod loosely surrounding said shaft between said collars, and adapted to engage said toothed collar, a spring located in the recess of said toothed collar, a traveler adapted to traverse said spiral rod, and a rocking-rod through means of which said traveler is actuated, substantially as described.

5. In a fan attachment for rocking-chairs, the combination of a fan-carrying shaft, a fan mounted upon said shaft, a grooved bearing-block secured to said shaft, a collar surrounding said bearing-block, and having a groove in alinement with the groove of said block, balls arranged in said grooves, said collar having its upper end curved inwardly over said balls, a clamp adapted to be attached to a chair, and a stirrup pivotally supported in said clamp, and pivotally connected to said collar, substantially as described.

CLEMENS SCHURMANN.
JOHN J. BROPHY.

In presence of—
E. S. KNIGHT,
N. FINLEY.