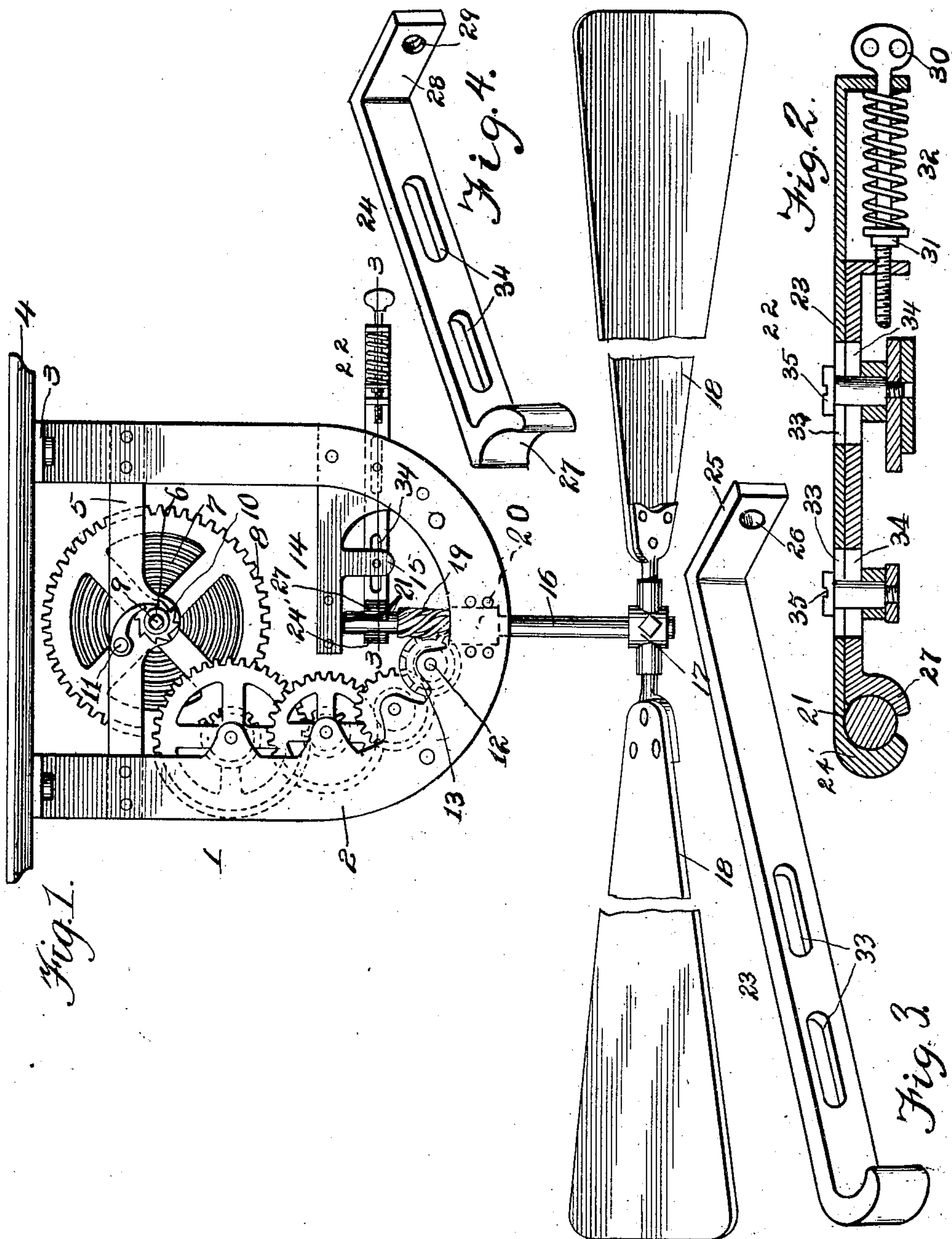


J. W. MALLORY & W. C. PETERS.
MACHINE BRAKE.

APPLICATION FILED JULY 24, 1909.

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Patented July 25, 1911.



Witnesses

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JOHN W. MALLORY AND WALTER C. PETERS, OF MINEOLA, TEXAS.

MACHINE-BRAKE.

998,913.

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To all whom it may concern:

Be it known that we, JOHN W. MALLORY and WALTER C. PETERS, citizens of the United States, residing at Mineola, in the county of Wood and State of Texas, have invented new and useful Improvements in Machine-Brakes, of which the following is a specification.

This invention relates to machine brakes for motor driven fans, and the principal object of the invention is to provide a fan with a regulating device whereby the speed of the fan may be easily controlled.

With the above and other objects in view, which will appear as the description progresses, the invention resides in the novel construction and arrangement of parts hereinafter fully described and claimed.

In the accompanying drawings there has been illustrated a simple and preferred embodiment of the invention, in which,

Figure 1 is a side elevation of the improved fan. Fig. 2 is an enlarged sectional view taken upon the line 3—3 of Fig. 1. Fig. 3 is a perspective view of one of the arms of the regulating device. Fig. 4 is a similar view of the co-acting arm.

This invention is primarily intended for use in connection with fans operated by spring motors and is so illustrated in the drawings, but it is to be understood that we do not restrict ourselves to this particular kind of motor as other motive powers may be employed with equal efficiency.

In the accompanying drawings the numeral 1 designates the frame of the device. This frame 1 may be of any particular shape or size and is preferably formed of a pair of spaced, substantially U-shaped side members 2 having their upper arms offset to provide feet 3 and whereby the frame may be attached to a suitable top 4. The arms of the U-shaped sides 3 are connected adjacent the top with cross bars 5 and mounted within these cross bars is a shaft 6 carrying a clock spring 7 having one of its ends attached to a toothed wheel 8. One of the ends of the shaft 6 is provided with a non-circular extension 9 which is adapted for engagement with a key whereby the spring 7 is wound. The shaft 6 is also provided with a suitable ratchet wheel 10 adapted to be engaged by a weighted pawl 11 pivoted upon one of the cross arms 5 of the frame 1. The wheel 8 meshes with

one of a plurality of toothed wheels carried upon shafts mounted in suitable bearings upon the U-shaped sides 2 and one of these shafts designated by the numeral 12 is provided with a worm wheel 13.

The frame 1 is provided upon one of its U-shaped sides with a suitable bracket 14 having a depending finger portion 15. The bracket 14 is provided with a suitable bearing 21 wherein is mounted the upper extremity of a fan shaft 16. This fan shaft has its lower extremity provided with a socket member 17 within which are mounted the fan blades 18 of the device. The fan shaft 16 is also provided with a suitable worm 19 which is adapted to engage with the worm wheel 13 carried by the shaft 12. The side 2 of the frame directly below the worm 19 is provided with a suitable bearing 20, which in connection with the bearing 21 of the bracket 14 retains the shaft 16 in a perfectly vertical position when the device is in operation.

The numeral 22 designates the regulating device for the fan shaft. This device comprises a pair of members 23 and 24. The member 23 is provided at one of its ends with an arcuate offset head portion 24', which is adapted to engage with the upper portion of the shaft 16 above the worm 19. The opposite end of the member 23 is provided with a substantially right angular offset 25 having a suitable perforation or opening 26, the purpose of which will be presently set forth. The member 24, like the member 23 comprises a substantially rectangular bar having its forward end provided with a curved offset portion 27 and its rear portion provided with a right angular offset member 28. This offset portion 28 has a threaded aperture 29 alining with the smooth aperture 26 of the offset 25 and the said openings 26 and 29 are adapted for the reception of the threaded key member 30. This member 30 has its threaded extremity positioned within the threaded opening 29 and is provided with a threaded disk 31, between which and the offset portion 25 of the member 23 is a helical spring 32. By this arrangement it will be noted that the spring 32 exerting pressure between the members 23 and 24 tends to force their arcuate faces tightly into engagement with the fan shaft 16 and that the said pressure may be easily and quickly regulated by adjust-

ing the threaded key member 30 or by adjusting the disk 31 upon the said threaded key or blade.

5 The members 23 and 24 are each provided with elongated alining slots or openings 33 and 34 and these openings are adapted for the reception of suitable threaded elements 35 which are connected with the depending finger 15 and one arm of the U-shaped side 10 2 of the frame 1, thus providing an effective bearing for the regulating or governing device.

Having thus fully described the invention what is claimed as new is:

15 The combination with a revoluble shaft, of a speed regulating device for the shaft, said regulating device comprising a pair of substantially rectangular arms slidably connected together, said arms having one of 20 their ends provided with oppositely ar-

ranged curved offsets engaging the shaft, one of the members being of a greater length than the other member and each of said members having their ends opposite their curved offsets provided with right angular offsets, said right angular offsets being provided with alining openings, the opening of the inner offset being threaded, a key member having a threaded portion within these openings, a threaded disk upon the 25 key member, and a tension device between the disk and the offset of the longer member.

In testimony whereof we affix our signatures in presence of two witnesses.

JOHN W. MALLORY.
WALTER C. PETERS.

Witnesses:

J. W. ALLEN,
J. J. LOGSDOW.

Copies of this patent may be obtained for five cents each, by addressing the "Commissioner of Patents, Washington, D. C."
