

No. 715,301.

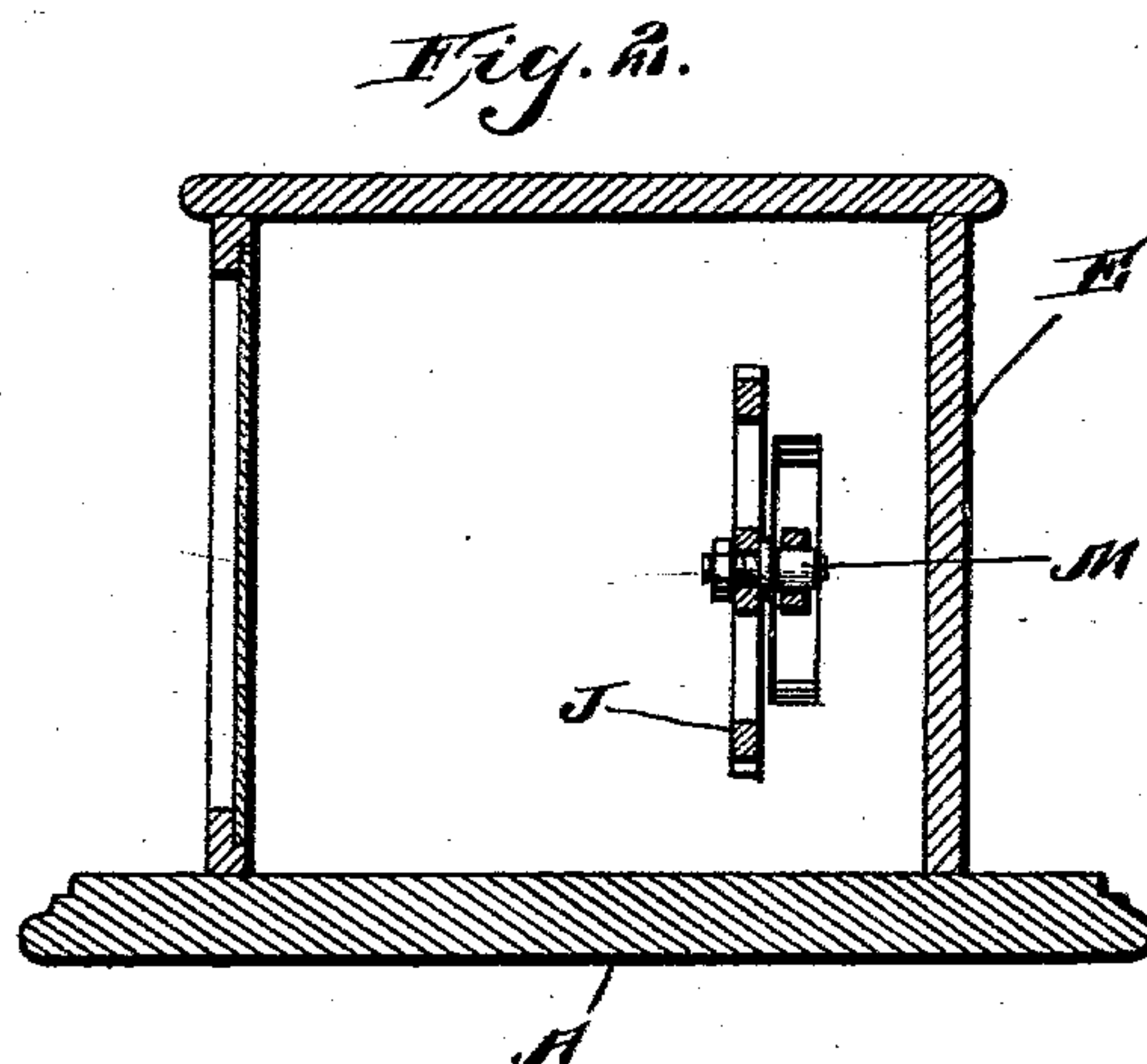
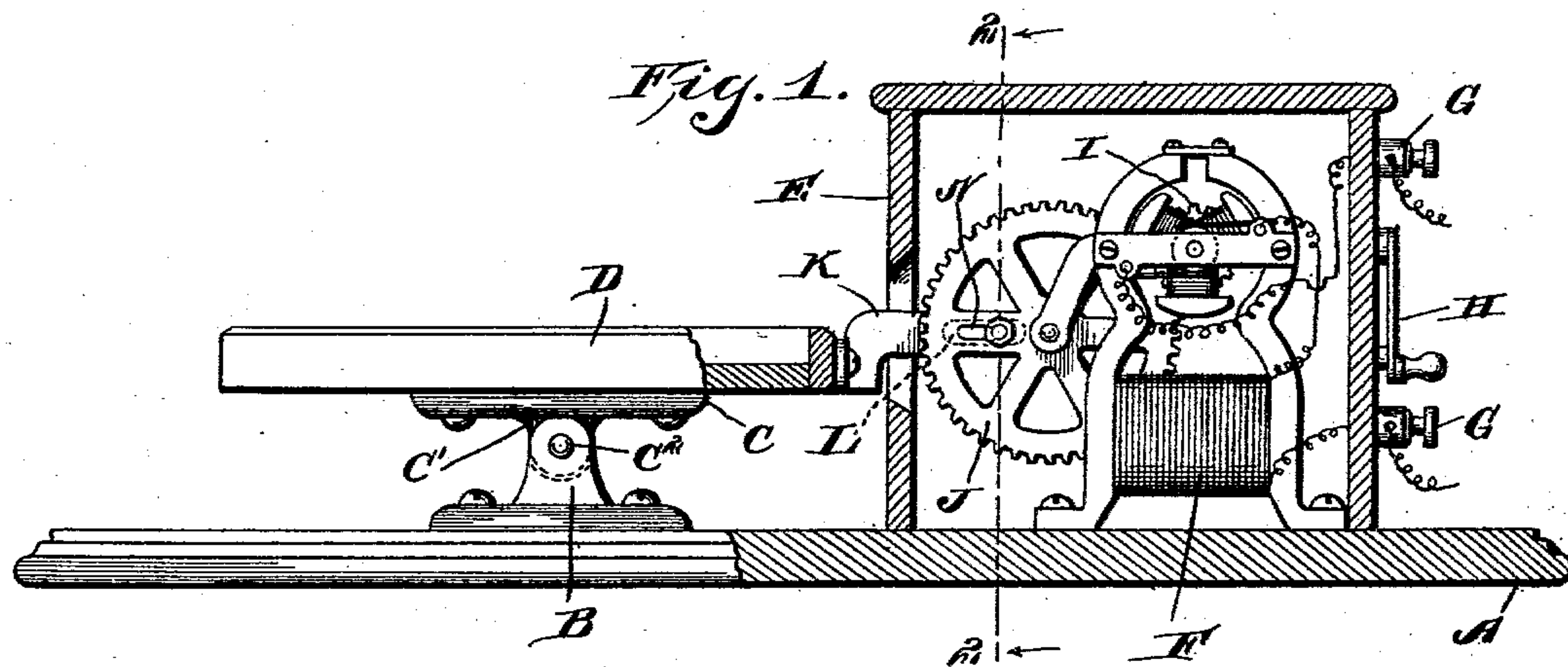
Patented Dec, 9, 1902.

J. G. SCHODRON.

PHOTOGRAPHIC PLATE DEVELOPING APPARATUS.

(Application filed Mar. 25, 1902.)

(No Model.)



Witnesses:

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UNITED STATES PATENT OFFICE.

JOHN G. SCHODRON, OF MILWAUKEE, WISCONSIN.

PHOTOGRAPHIC-PLATE-DEVELOPING APPARATUS.

SPECIFICATION forming part of Letters Patent No. 715,301, dated December 9, 1902.

Application filed March 25, 1902. Serial No. 99,848. (No model.)

To all whom it may concern:

Be it known that I, JOHN G. SCHODRON, a citizen of the United States, residing at Milwaukee, county of Milwaukee, and State of Wisconsin, have invented a certain new and useful Improvement in Photographic-Plate-Developing Apparatus, of which the following is a specification.

My invention relates to a new and useful improvement in photographic-plate-developing apparatus, and has for its object to provide an apparatus which will mechanically oscillate the tray containing this development solution in which the photographic plate is immersed.

With this end in view the invention consists in the details of construction and combination of elements hereinafter set forth and then specifically designated by the claim.

In order that those skilled in the art to which this invention appertains may understand how to make and use the same, the construction and operation will now be described in detail, referring to the accompanying drawings, forming a part of this specification, in which—

Figure 1 is a longitudinal section through the apparatus; Fig. 2, a section upon the line 2 2 of Fig. 1.

A represents a suitable base.

B is a bearing secured to the base A.

C is a plate having a depending lug C', which lug carries a stud C², which is journaled in the bearing B.

D is a tray which is secured upon the top of the plate C, and in this tray is adapted to rest the developing-tray containing the solution and the plate to be developed.

E is a casing secured to the base A, and in this casing is located a motor F. This may be either a spring or an electric motor; but I prefer to use an electric motor and have so shown it in the drawings. The terminals of this motor are connected to the binding-posts G, and the motor is adapted to be started and stopped by means of the switch H of the ordinary construction. Upon the power-shaft of the motor is located a small gear-wheel I, which is adapted to mesh with the large gear-wheel J, journaled in suitable bearings.

K is an arm secured at one end to the tray D and projects through an opening formed in

the casing and has in its outer end a slot L, through which is adapted to protrude a stud M, which is clamped in the slot N in the large gear-wheel J. Thus as the large gear-wheel J is revolved the stud N, operating in the slot L of the arm K, will act as a crank-shaft and work the arm K up and down a distance determined by the distance the stud M is from the center of the wheel J. This raising and lowering of the arm K will oscillate the tray D upon the pivot C². The stud M is adjustable in the slot N of the gear-wheel J, and thus the oscillation can be regulated by the adjusting of the stud toward or away from the center of the wheel J.

It is very essential in developing plates to keep the tray in which the plate is developed continually moving, so as to prevent the settling of the developer upon the plate. This is very tiresome work to be done by hand, and the advantage of my invention is that this oscillation of the tray can be accomplished by my apparatus, which will do away with the tiresome method of doing it by hand and also allow the operator to attend to other work while the plate is developing. In fact, he may have a number of plates developing at the same time and be able to look after them all at once.

It will be noticed that the pivotal point of the tray is situated so that the tray and the arm K will be equally balanced upon the pivotal point. Therefore it requires very little power to oscillate the tray, and a very small and inexpensive motor will be sufficient to oscillate a tray of comparatively large size. This enables the apparatus to be made comparatively cheap and inexpensive to operate.

Of course I do not wish to be limited to the exact construction here shown, as slight modifications could be made without departing from the spirit of my invention.

Having thus fully described my invention, what I claim as new and useful is—

In a device of the character described, a suitable base, a tray in which the developing-tray is adapted to rest, a bearing secured to the base, a plate secured to the under side of the tray, a lug depending from said plate, said lug pivoted to the bearing arising from the base, a suitable casing, a motor located in the casing, a small gear-wheel located upon the

power-shaft of the motor, a large gear-wheel
 journaled in suitable bearings and adapted
 to be in mesh with the smaller gear-wheel, the
 larger gear-wheel provided with a slot, a stud
 5 clamped in said slot, an arm secured at one
 end to the tray and extending inward in the
 casing through a suitable opening, said arm
 provided with a slot through which the stud
 secured in the gear-wheel is adapted to pro-
 10 trude, means for starting and stopping the

motor, substantially as and for the purpose
 specified.

In testimony whereof I have hereunto af-
 fixed my signature in the presence of two sub-
 scribing witnesses.

JOHN G. SCHODRON.

Witnesses:

JOHN H. WIERSUM,
 EMIL J. ZINGEN.