No. 865,896. PATENTED SEPT. 10, 1907.

F. A. HINES.

AUTOMATIC ALARM FOR ROASTERS.

APPLICATION FILED SEPT. 6, 1906.

2 SHEETS—SHEET 1.

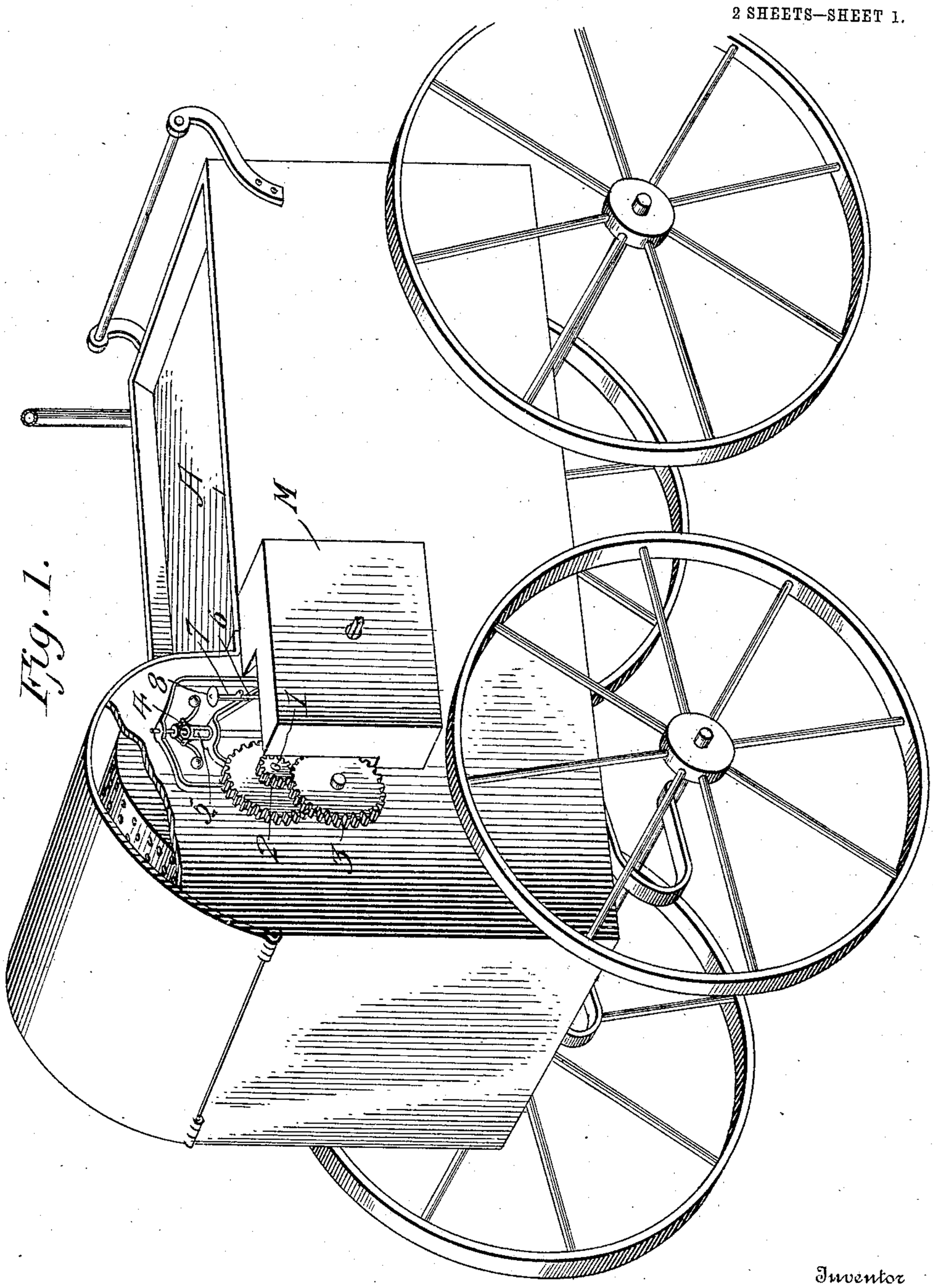

Fig. 1.

Witnesses

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2 SHEETS—SHEET 2.

Fig. 3.

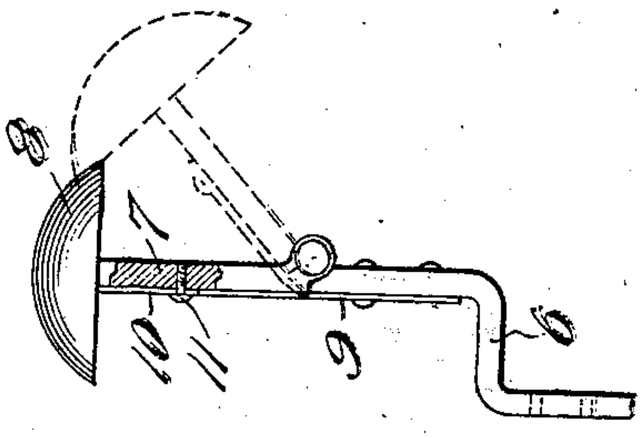
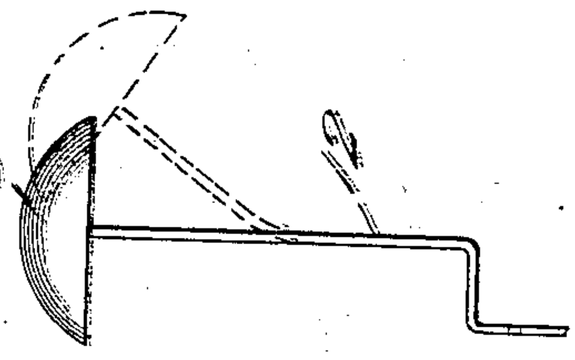


Fig. 4.



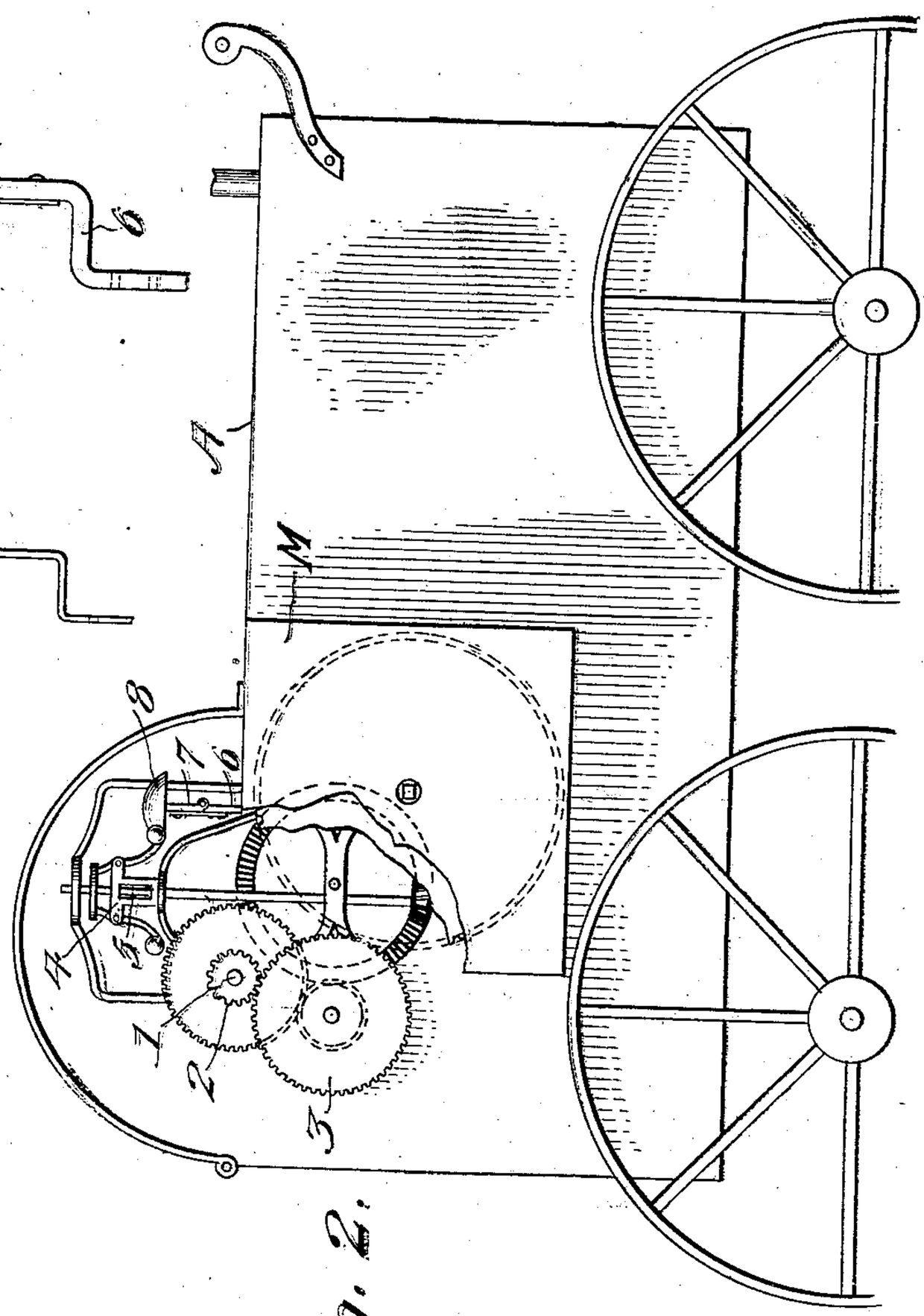


Fig. 2.

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UNITED STATES PATENT OFFICE.

FRED A. HINES, OF CRESTON, IOWA.

AUTOMATIC ALARM FOR ROASTERS.

No. 865,896. Specification of Letters Patent. Patented Sept. 10, 1907.

Application filed September 6, 1906. Serial No. 333,527.

To all whom it may concern:

Be it known that I, FRED A. HINES, a citizen of the United States, residing at Route No. 5, post-office Creston, in the county of Union and State of Iowa, have invented a new and useful Automatic Alarm for Roasters; and I do hereby declare the following to be a full, clear, and exact description of the invention, such as will enable others skilled in the art to which it appertains to make and use the same.

This invention relates to an alarm and stop device adapted to be used in connection with various kinds of spring motors for the purpose of sounding an alarm when the motor with which the device is connected is nearly run down, and for the further purpose of locking or securing the train of the motor while the latter is being rewound.

The principal object of the invention is to provide a device of the class described which may be conveniently used in connection with spring motors utilized for driving or rotating cylinders in which peanuts are being roasted, so as to automatically sound an alarm when the motor is nearly rundown, thus calling the attention of the attendant to the fact that the motor should be rewound or the contents removed.

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 arrangement and combination 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 the invention; it being however, understood that no limitation is necessarily made to the precise structural details therein exhibited, but that changes, alterations, and modifications within the scope of the invention may be resorted to when desired.

In the drawings: Figure 1 is a perspective view showing the invention applied to a motor for driving a roasting cylinder, and showing the parts in the position occupied when the cylinder is in motion at normal speed. Fig. 2 is a side elevation showing the position occupied by the parts when the motor is at rest. Fig. 3 is a sectional elevation, enlarged, of the parts comprising the invention. Fig. 4 is a sectional elevation illustrating a modified construction.

Corresponding parts in the several figures are denoted by like characters of reference.

A designates a peanut roaster of which 1 is the cylinder carrying shaft which is provided with a pinion 2 meshing with a spurwheel 3 which is one of the train of a suitably constructed spring motor, the casing of which appears at M.

4 represents a striker the shaft of which 5 is driven by the motor.

Suitably secured upon the frame or casing of the device is a bracket 6 having a hinged arm 7 upon which is mounted a sounder, such as a bell 8 which latter is disposed in the path of the arms of the striker 4 when at rest, as shown in Fig. 2 of the drawings; the location of the bell 8 however, is such that when the striker is in motion at normal speed the arms of the striker will swing clear of the bell, as will be seen by reference to Fig. 1 of the drawings. The arm 7 which carries the bell is retained in operative position by means of a spring 9 secured upon the bracket 6 and having a slot 10 for the passage of a headed stud 11 connected with the bell carrying arm 7; the spring 9 will serve to retain the bell carrying arm in the position shown in full lines in Figs. 1 and 2 of the drawings, but the bell carrying arm may be manually moved to the position shown in dotted lines in Fig. 3, thus moving the bell out of the path of the arms of the striker. When the bell carrying arm is released, it will be automatically restored to its normal or initial position by the spring 9.

When the spring motor is properly wound, it will transmit rotary motion to the shaft 1 carrying the roasting cylinder; rotary motion is also transmitted from the motor to the shaft carrying the striker the arms of which will be thrown by centrifugal force to an approximately horizontal position where they will clear the bell 8. When the motor is nearly run down, and the motion slackens, the striker arms will come in contact with the bell which will thus be sounded, thereby notifying the attendant. When the motor has stopped, the bell will lie in the path of the striker arms, thus preventing the striker shaft from rotating, and consequently locking the motor until the bell is manually moved out of the path of the striker arms, as indicated in dotted lines in Fig. 3 of the drawings, when the motor will be free to run; as soon as normal speed has been attained the bell may be released when it will be restored to its normal position by the spring 9; by this time the striker will have attained a speed which permits its arms to swing clear of the bell.

A modified and somewhat simplified form of the invention has been illustrated in Fig. 4 of the drawings, by reference to which it will be seen that the bell is mounted upon a resilient arm 12 which is attached directly to the frame or casing of the device. This construction permits the bell to be moved out of the path of the striker arms, as indicated in dotted lines, and the inherent resiliency of the arm 12 will serve to restore it to normal position, when released.

It is obvious that the utility of this invention is by no means limited to its application to peanut roasters; it is applicable to a variety of purposes and may be usefully employed in connection with spring motors that are utilized for driving various kinds of machinery where it is desirable that notice should be given when

the motor is nearly run down. It is also desired to be understood that no limitation is made to any particular manner of mounting or supporting the bell or sounder, since numerous deviations from the construction herein shown and described may be made without departing from the spirit and scope of the invention.

Having thus described the invention what is claimed is:

1. A spring motor, a striker driven thereby and a sounder supported in a position where it will lie in the path of the striker arms when at rest and will be cleared by the striker arms when in motion.

2. A spring motor, a striker driven thereby, and a sounder movably supported in a position where it will lie in the path of the striker arms when at rest and will be cleared by the striker arms when in motion.

3. A spring motor, a striker driven thereby, and a sounder resiliently supported in a position where it will lie in the path of the striker arms when at rest and will be cleared by the striker arms when in motion.

4. A spring motor, a striker driven thereby, and a sounder, and means supporting the sounder in a position where it will lie in the path of the striker when the latter is at rest and will be cleared by the striker when the latter is in motion, said means being constructed to permit the sounder to be moved to start the motor.

5. A motor for driving peanut roasters and the like, a striker driven thereby, a suitably supported bracket, an arm hingedly connected with the bracket, a bell carried by said arm and a spring connected with the bracket and actuating the bell carrying arm to support the bell in the path of the arms of the striker when at rest.

In testimony whereof I have signed my name to this specification in the presence of two subscribing witnesses.

FRED A. HINES.

Witnesses:
WALTER J. LOCKE,
G. B. HICKS.