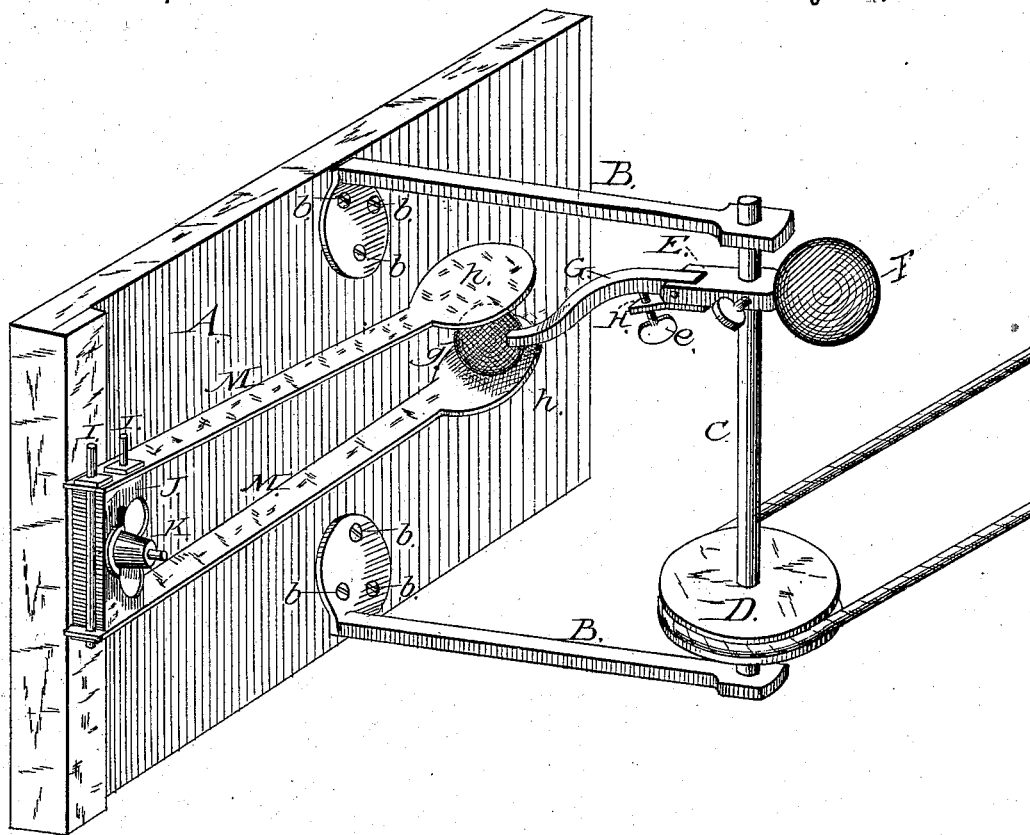


(No Model.)

C. J. LANGENBACH.
ALARM SPEED INDICATOR.

No. 261,732.

Patented July 25, 1882.



Witnesses;
Charles Fowler,
H. B. Stephenson,

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UNITED STATES PATENT OFFICE.

CHARLES J. LANGENBACH, OF DORCHESTER, IOWA.

ALARM SPEED-INDICATOR.

SPECIFICATION forming part of Letters Patent No. 261,732, dated July 25, 1882.

Application filed April 3, 1882. (No model.)

To all whom it may concern:

Be it known that I, CHARLES J. LANGENBACH, of Dorchester, in the county of Allamakee and State of Iowa, have invented a new and useful Improvement in Alarm Speed-Indicators, of which the following is a full, clear, and exact description, reference being had to the accompanying drawing, making a part of this specification, in which the figure is a perspective view of an alarm-indicator with my improvements attached.

The object of my invention is to provide an alarm-indicator to indicate fast or slow motion by two different sounds; and it consists of certain details of construction and combination of devices, as hereinafter described and claimed.

To enable others skilled in the art to make and use my invention, I will proceed to describe the exact manner in which I have carried it out.

In the drawing, A represents a board or the base of the indicator.

B B are two arms secured to the board by the screws *b* or any other convenient means. These arms furnish bearings in their outer ends for the vertical shaft C, the lower arm being provided with a step-bearing to keep the shaft in position. The upper arm may be provided with an adjustable bearing, so that the shaft C can be removed when desired. The shaft is driven by the pulley D, connected by means of a belt with the driving-power.

On the vertical shaft C is attached the adjustable block E, on one end of which is secured a ball, F. The opposite end is slotted vertically to receive the pivoted arm G, carrying the ball *g*. Below the slotted end of the block E, I secure the plate H, which furnishes a bearing for the adjusting-screw *e*, by which the fall of the arm G is determined and controlled. As the shaft C is revolved the ball *g* is raised by centrifugal force, and the degree

of rise or fall depends upon the velocity at which the shaft is moved, thus acting like the ordinary steam-governor.

On the base A of the indicator I secure the two steel springs M M, on the ends of which are the bell-metal plates *h h*. These springs are secured in position by screw-bolts I, between which is a block, J, slotted in the center to afford proper adjustability to the springs, and is secured by the thumb-screw K to the base A, as shown in the drawing.

The operation of my alarm speed-indicator is as follows: When the indicator is in position the desired speed is determined and the springs H H adjusted so as to allow the ball *g* in its revolution to pass freely between them. If the speed should slacken too much, the ball *g* would necessarily revolve on a lower plane and come in contact with the lower spring and strike an alarm. If the speed should increase beyond a desired velocity, the ball *g* would necessarily be thrown up until it would come in contact with the upper spring and strike the alarm. The two springs are so tempered as to yield very different sounds, so that the person in charge can readily tell whether the speed is too low or too high. It is evident that bells may be placed on the ends of the springs without departing from the spirit of my invention.

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

In an alarm speed-indicator, the revolving spindle C, swinging arm G, and revolving ball *g*, in combination with the sounding-springs H H, all constructed to operate substantially as and for the purpose set forth.

CHARLES J. LANGENBACH.

Witnesses:

L. COPPERSMITH,
THEO. SCHWARZHOFF.