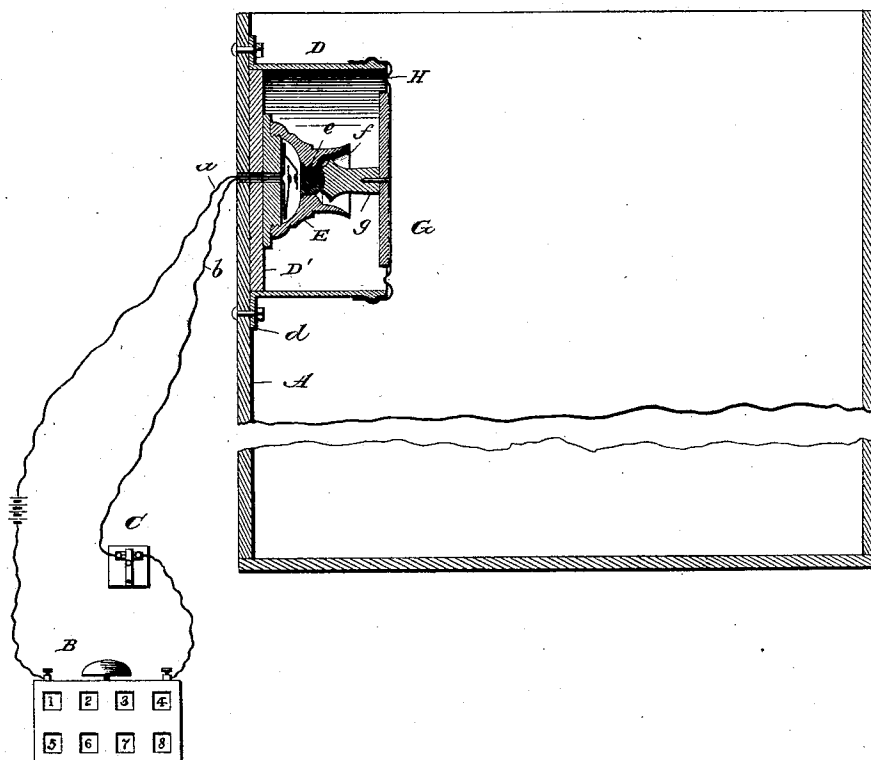


(No Model.)

A. C. THOMPSON & H. E. NEWTON.
ELECTRIC INDICATOR FOR GRAIN BINS.

No. 417,117.

Patented Dec. 10, 1889.



Horace E. Newton.
— and —
Adrial C. Thompson.

Witnesses

G. S. Elliott.
E. M. Johnson

Inventor

By his Attorneys

[Signature]

UNITED STATES PATENT OFFICE.

ADRIAL C. THOMPSON AND HORACE E. NEWTON, OF GREELEY CENTER,
NEBRASKA.

ELECTRIC INDICATOR FOR GRAIN-BINS.

SPECIFICATION forming part of Letters Patent No. 417,117, dated December 10, 1889.

Application filed October 17, 1889. Serial No. 327,292. (No model.)

To all whom it may concern:

Be it known that we, ADRIAL C. THOMPSON and HORACE E. NEWTON, citizens of the United States of America, residing at Greeley Center, in the county of Greeley and State of Nebraska, have invented certain new and useful Improvements in Electrical Indicators for Grain-Bins; and we 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, reference being had to the accompanying drawing, and to letters of reference marked thereon, which form a part of this specification.

Our invention relates to certain new and useful improvements in electric indicators for grain or other bins, the object thereof being to provide a grain bin or receptacle with a device which will indicate when the bin is filled; and our invention consists in a hollow receptacle or casing which is adapted to be attached to the bin, said casing containing an electric call-button, which is operated by a rod or projection attached to a disk carried by a flexible diaphragm, said diaphragm being secured in place over the end of the casing, as will be hereinafter fully set forth and particularly claimed.

In the accompanying drawing the figure is a diagram view showing the device attached to a portion of a grain-bin and connected with an annunciator.

A refers to one of the walls of the bin, forming, preferably, a part of a grain-elevator to which our invention is applied. B is an annunciator of ordinary construction having several indicating devices with which the wires from the call-button are connected, the wires from the annunciators having batteries which operate on a closed circuit. The annunciator is usually located in the office of the elevator, or near the shifting spout of the grain-elevator leg, so as to indicate that the spout should be shifted and that the bin is filled.

As the device operates on a closed circuit, a circuit-breaker C is interposed between the call-button and annunciator or battery.

D refers to a cylindrical casing, preferably

made of metal, having a projecting flange *d* for attaching the same to the wall A of the bin, and this casing is provided at one end with a disk D', of non-conducting material, to which a call-button E, of ordinary construction, is centrally attached, the plates thereof being connected with the wires *a b*. The stud *e* of the call-button E lies within a flared tube *f*, which serves as a guide for a pin *g*, carried by a disk G, secured to a diaphragm H, of flexible material, which is free to move inwardly to operate the stud *e* when pressure or the grain contacts with the same, the disk G and diaphragm being pressed outwardly by the spring-pressure of one of the make-and-break circuit-plates in the call-button. The outer edge of the casing D is grooved for attaching the diaphragm thereto. The diaphragm is preferably made of muslin, oil-silk, or other flexible material which will move freely and will exclude the dust and grain.

Several of these devices having the call-buttons may be attached to the inner side of a bin, and will operate when the grain reaches the level thereof, and the same may be connected with the different indicators of the annunciator.

The device hereinbefore described is simple, cheap, and effective, and is not liable to get out of order.

Having thus described our invention, what we claim is—

1. The combination, with a grain bin or receptacle, of a device for indicating the maximum quantity of grain therein, and consisting of a casing attached thereto and provided with a flexible diaphragm carrying a pin and located within the bin at about the point represented by the plane reached by the grain, a circuit-closer or call-button having a plug with which the pin contacts to close the circuit, and conductors connecting said circuit-closer with a battery and annunciator, substantially as and for the purpose set forth.

2. The combination, with an indicator for grain-bins, of a device for indicating the maximum quantity of grain therein, and consisting of a casing located within the bin at about the point represented by the plane reached by

the grain, and provided with a flexible diaphragm, a circuit-closer or call-button located within said casing and adapted to be operated thereby, conductors connected therewith, and a battery-annunciator and hand-operated circuit-breaker included in the circuit, substantially as described, and for the purpose set forth.

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

ADRIAL C. THOMPSON.
HORACE E. NEWTON.

Witnesses:

M. H. NUGENT,
H. S. YOUNG.