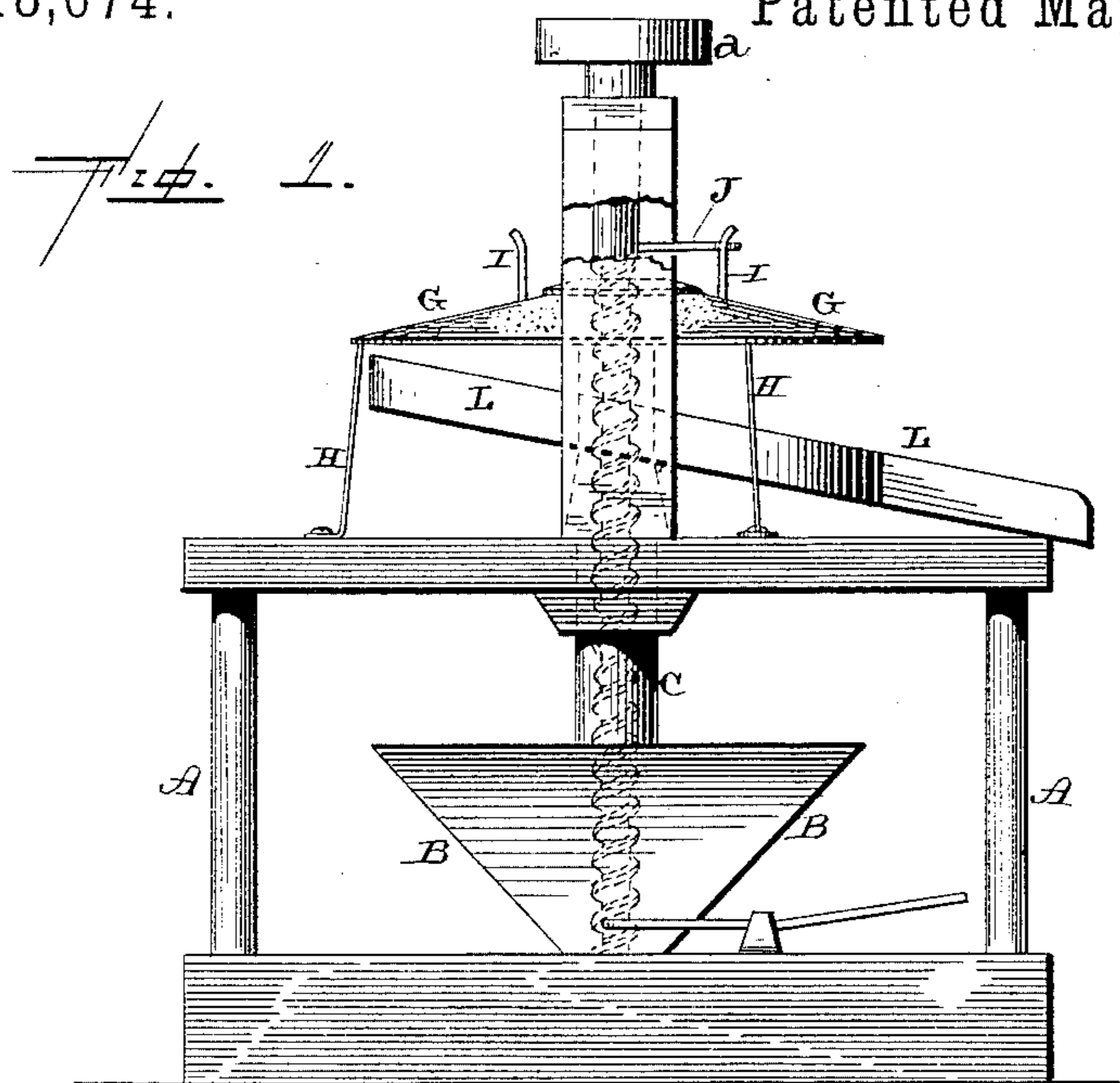


(No Model.)

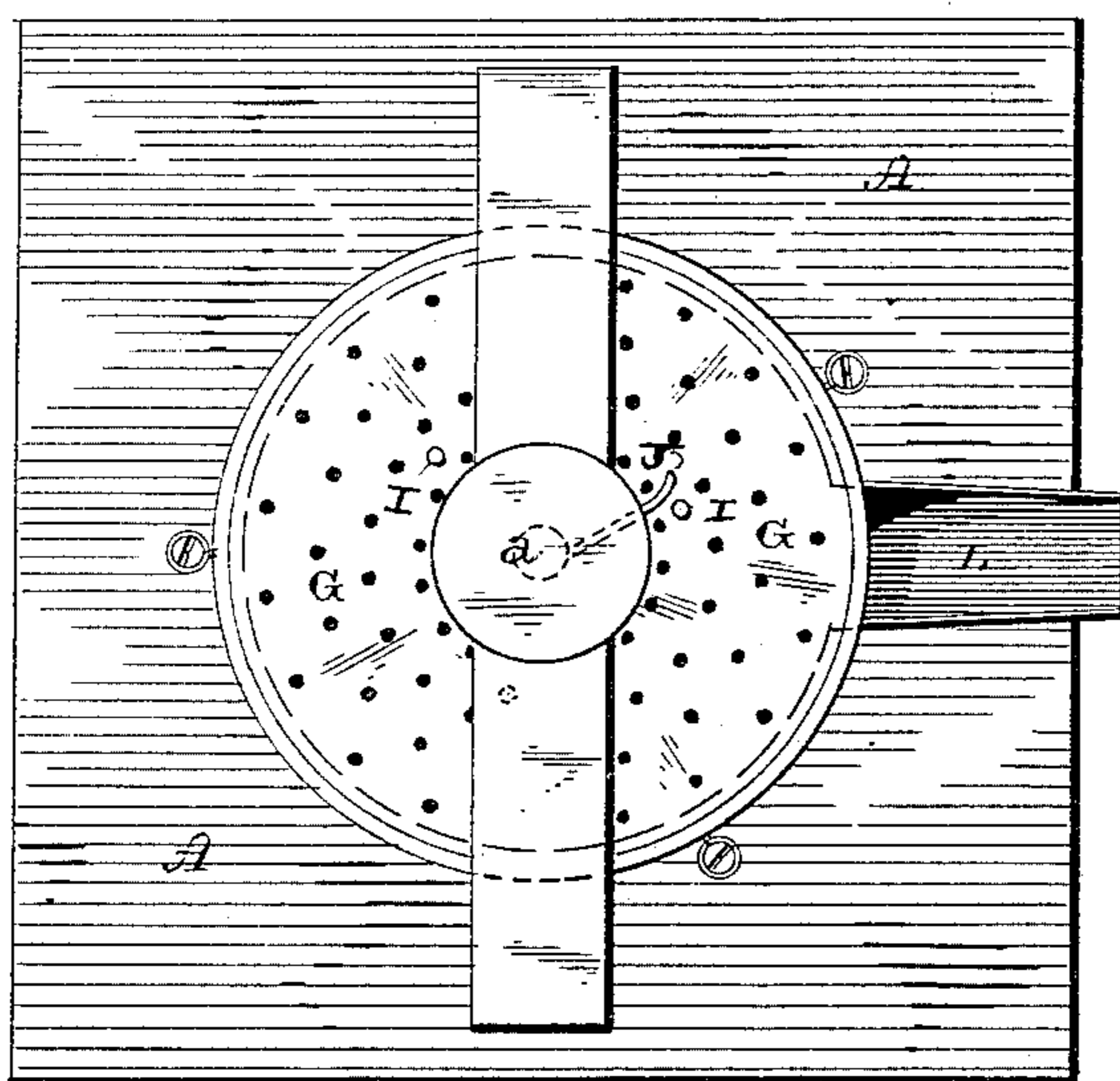
F. M. WILLIAMS.  
GRAIN ELEVATOR AND CLEANER.

No. 318,674.

Patented May 26, 1885.



*Fig. 2.*



—Witnesses.—

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—Inventor.—

F. M. Williams  
per  
J. A. Lehmann,  
Atty.

# UNITED STATES PATENT OFFICE.

FRANCIS MARION WILLIAMS, OF DOWS, IOWA.

## GRAIN ELEVATOR AND CLEANER.

SPECIFICATION forming part of Letters Patent No. 318,674, dated May 26, 1885.

Application filed March 10, 1885. (No model.)

*To all whom it may concern:*

Be it known that I, FRANCIS M. WILLIAMS, of Dows, in the county of Wright and State of Iowa, have invented certain new and useful Improvements in Grain Elevators and Cleaners; 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 pertains to make and use it, reference being had to the accompanying drawings, which form part of this specification.

My invention relates to an improvement in grain elevators and cleaners; and it consists in a combined grain elevator and cleaner comprising a hopper, a tube, a shaft which has a spiral or spirals formed upon it like an auger for the purpose of elevating the grain, a convex screen which is placed around the upper end of the tube, spring-supports for the screen, an arm on the elevating-shaft, projections upon the screen for the arm to strike against, and a receptacle placed under the screen to catch the dirt and grain that fall through it, as will be more fully described hereinafter.

The object of my invention is to elevate the grain and deposit it evenly upon the top of the convex screen, which is given a shaking movement as the elevator-shaft is made to revolve.

Figure 1 is a side elevation of a machine embodying my invention; Fig. 2, a plan view of the same.

A represents a suitable frame-work, in which is placed the hopper B, into which the grain to be cleaned is emptied. Rising from the bottom of this hopper is the tube or pipe C, through which the grain is elevated. In this pipe or tube is placed a shaft having spirals upon it like an auger, and which spirals catch

the grain and raise it upward as the shaft is made to revolve by means of the pulley *a*, secured to its upper end. Placed around the upper end of the tube or pipe is the convex shaking screen G, which is supported by means of the spring-supports H. Upon the top of this screen are formed a number of projections, I, which are struck by the arm J, which is secured to the elevating-shaft, when the shaft is made to revolve. Placed underneath the screen is a inclined receptacle, L, into which the grain falls after passing through the apertures in the screen G. This receptacle being placed in an inclined position, the grain at once flows off into any receptacle placed to receive it. As the grain is discharged from the upper end of the pipe it is distributed evenly over the top of the screen, which is kept constantly vibrating, so as to cause the grain to separate from the chaff, straw, and dirt, which slide down over the top of the screen and are discharged therefrom around its lower edge.

Having thus described my invention, I claim—

A combined grain elevator and cleaner comprising a hopper, a tube, the elevating-shaft, the convex screen, spring-supports, the projections upon the top of the screen, an arm secured to the revolving shaft, and the receptacle placed under the screen to catch the grain, substantially as shown and described.

In testimony whereof I affix my signature in presence of two witnesses.

FRANCIS MARION WILLIAMS.

Witnesses:

A. G. WARD,  
W. BARKER.