

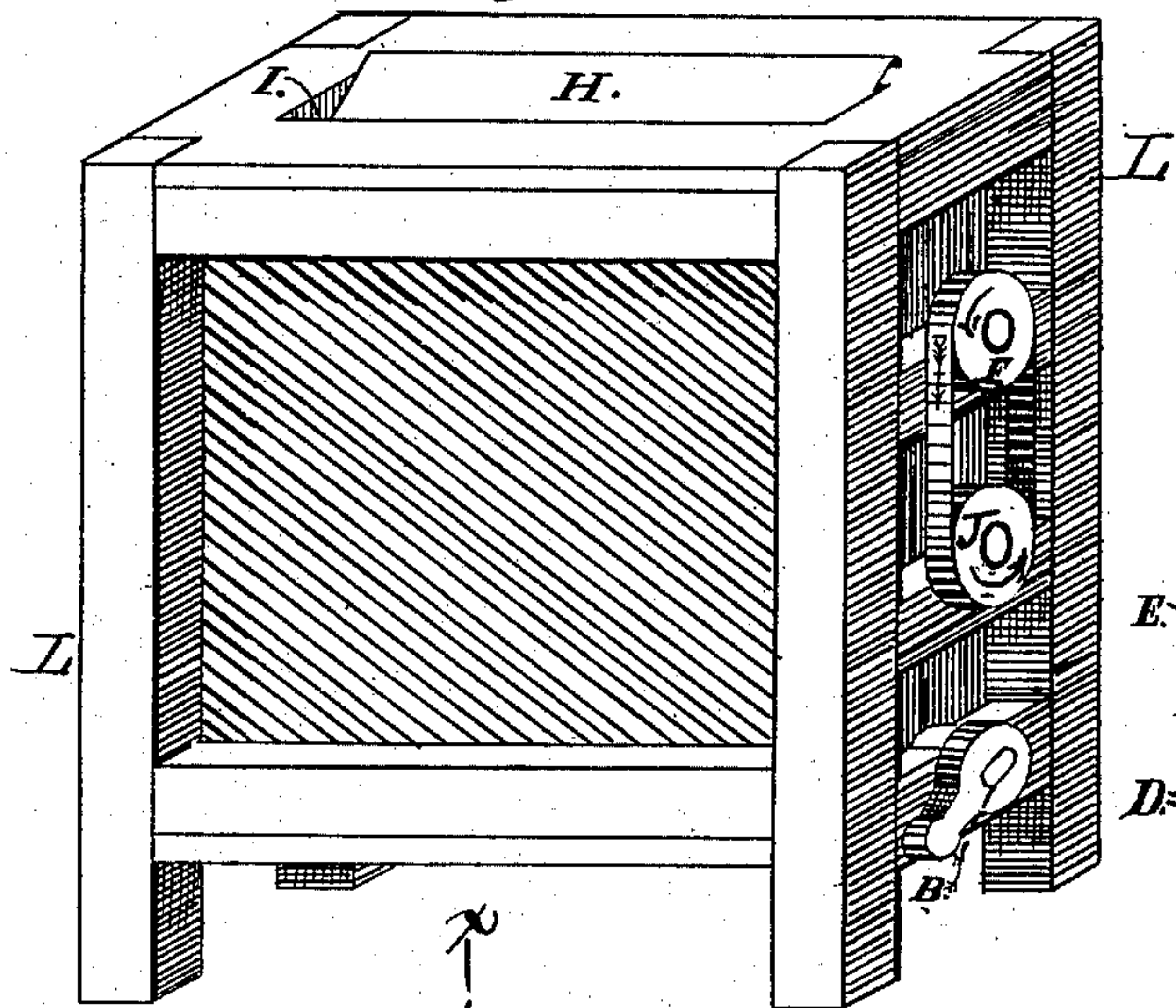
(Model.)

F. X. STIEFENHOFER.  
WHEAT SCOURING APPARATUS.

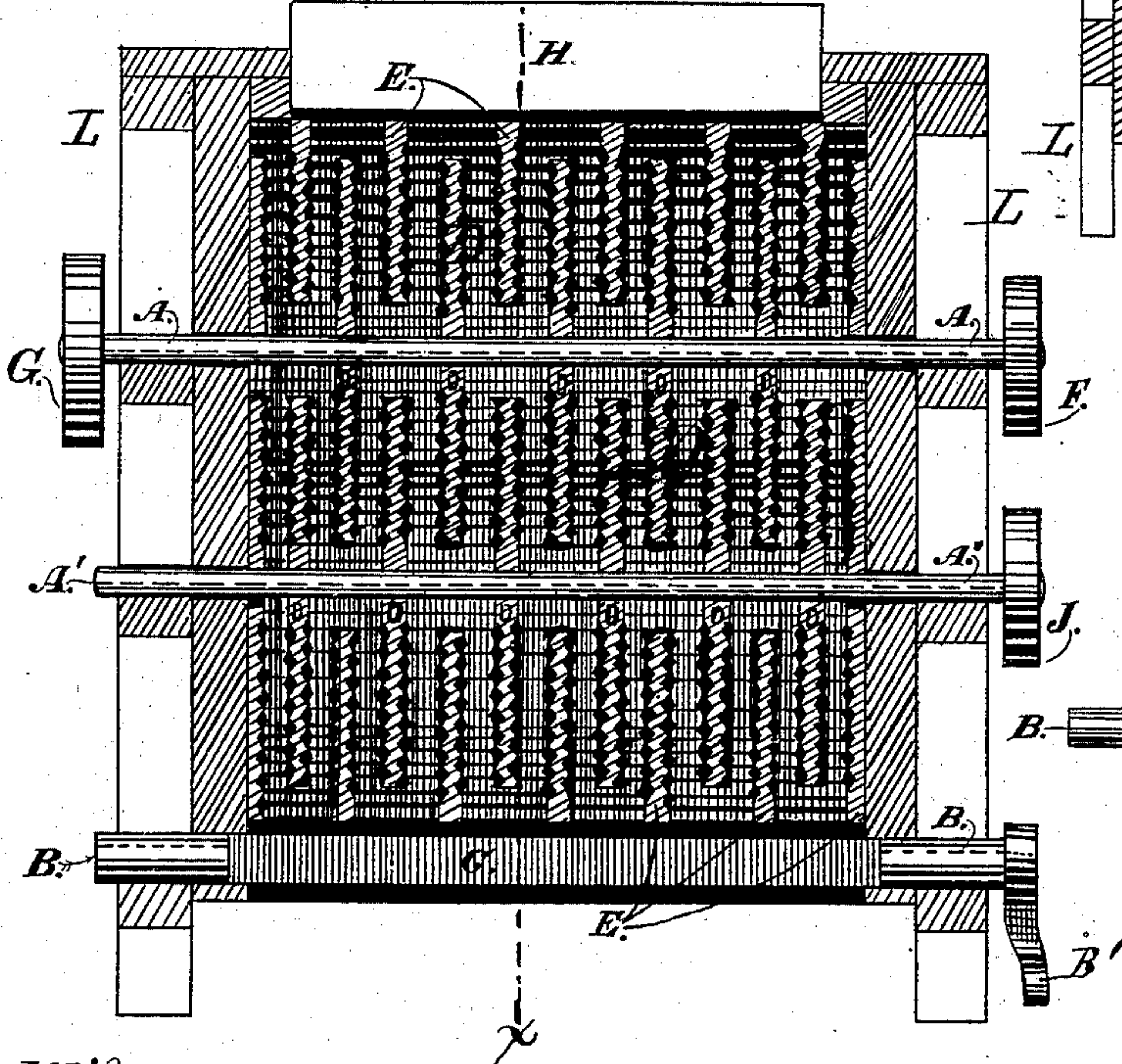
No. 270,145.

Patented Jan. 2, 1883.

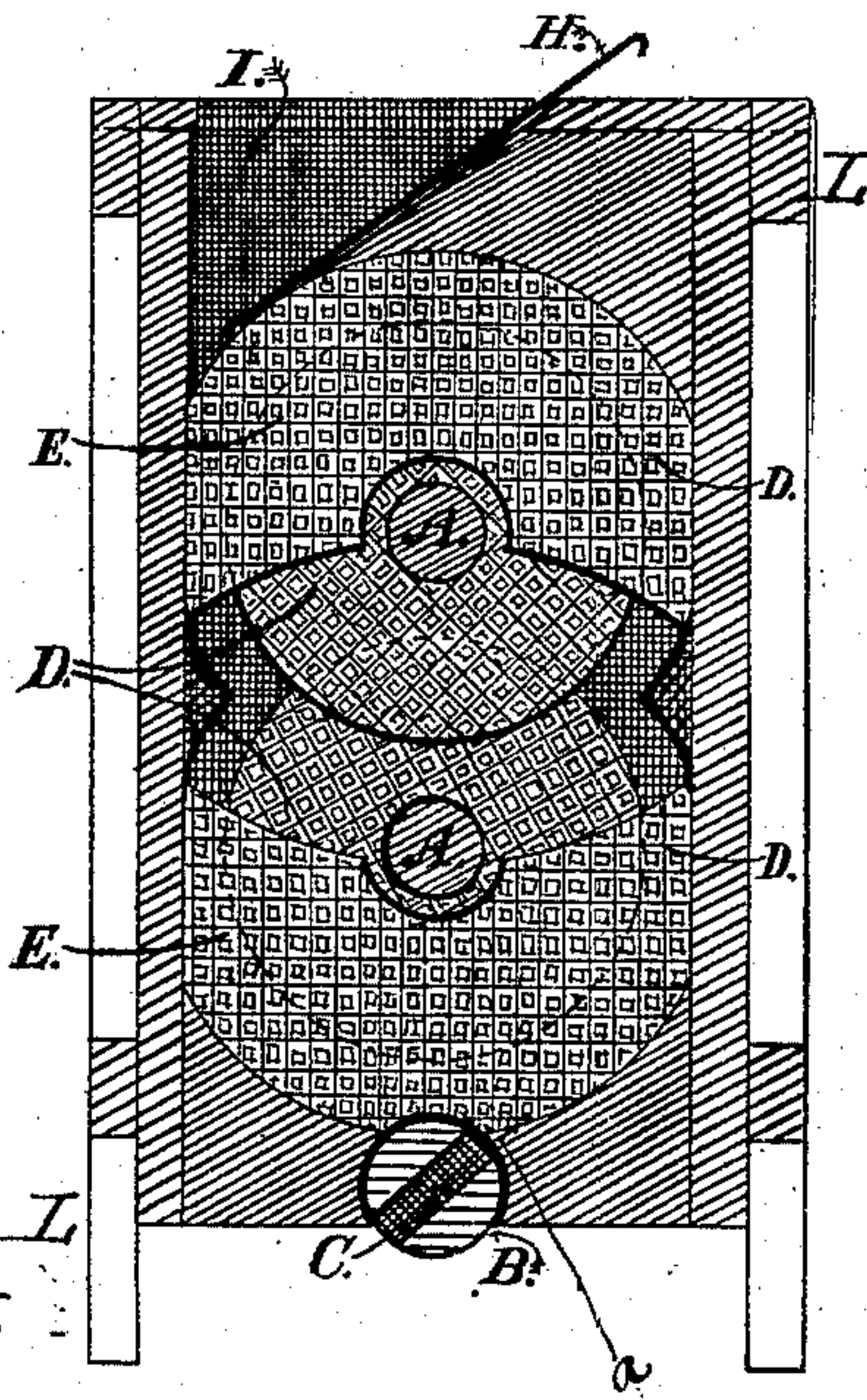
*Fig. 1.*



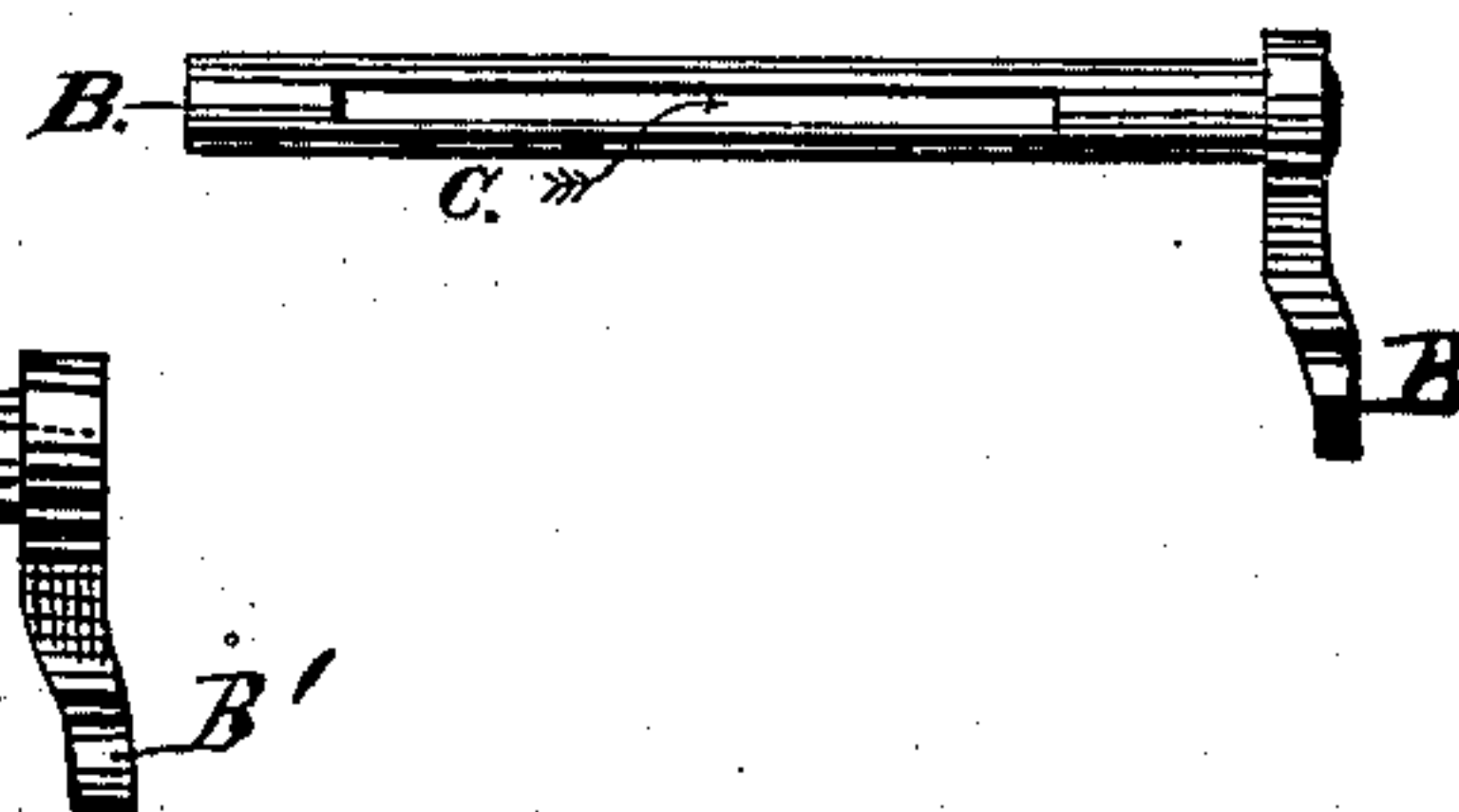
*Fig. 2.*



*Fig. 3.*



*Fig. 4.*



Witnesses:

*Courad Stiepen  
W. J. J. B.*

Inventor:

*Franz Haver Stiefenhofer.*



# UNITED STATES PATENT OFFICE.

FRANZ X. STIEFENHOFER, OF SOUTH EASTON, PENNSYLVANIA.

## WHEAT-SCOURING APPARATUS.

SPECIFICATION forming part of Letters Patent No. 270,145, dated January 2, 1883.

Application filed June 21, 1881. (Model.)

*To all whom it may concern:*

Be it known that I, FRANZ XAVER STIEFENHOFER, of South Easton, county of Northampton, and State of Pennsylvania, have invented a new and useful Improvement in Wheat-Scouring Apparatus, of which the following is a specification.

This invention relates to machines for cleaning wheat and other cereals by rasping off the cortical portion; and the nature of it consists in a wheat decorticating and scouring machine which will deprive the wheat-grains of their cortical envelopes in a very efficient and thorough manner, as will be fully understood from the following description, when taken in connection with the annexed drawings, in which—

Figure 1 is a perspective view of my wheat-scouring machine complete. Fig. 2 is a vertical section taken centrally and longitudinally through the machine. Fig. 3 is a transverse section taken through the machine in the vertical plane indicated by dotted line *xx* on Fig. 2. Fig. 4 is a side view of the slotted oscillating regulating discharging-shaft detached from the machine.

The letter L designates the rectangular frame of the machine, which is provided with a suitable housing for inclosing the decorticating devices. At the top of this frame is a hopper, I, which has for its bottom an adjustable slide, H, for regulating the feed according to the quality of the grain and the condition thereof. Below the feed-opening of the hopper I secure to a horizontal shaft, A, on which are belt-pulleys F G, a number of wheels or disks, D, the faces of which are rugated, serrated, or roughened in any suitable manner. These disks or wheels are made of hardened steel or of any other suitable material. Between these rugated or roughened disks are stationary plates E, which are rigidly secured to the main frame, or they are what might be denominated "concaves." Below the shaft A and its decorticators or scourers, and arranged in a plane parallel to said shaft A, is another shaft, A', having its bearings in the frame L, and provided on one end with a belt-pulley, J, which revolves in the same direction as the pulley F on shaft A, by means of a belt. (Shown in Fig. 1.) On this shaft A', I secure

disks or wheels D, corresponding to the disks or wheels D on shaft A, but arranged to rotate between them, and also between the stationary plates or arms E at the base of the machine.

At the base of the machine, and centrally and longitudinally arranged thereat, is a shaft, B, having a slot, C, diametrically through it nearly its entire length. This slot C is clearly shown in Figs. 2, 3, and 4, and it is designed for allowing the cleaned grains to flow through it in their discharge. This slotted discharging-shaft is sustained in end bearings near the base of frame L, and it is provided with a handle, B', on one end, by which it can be oscillated for the purpose of regulating the outward flow of the cleaned grain. This outward flow is regulated by adjusting the upper part of the slot C with relation to the internal edge, *a*, of the bottom concave, as indicated by Fig. 3. This device B enables me to regulate the flow of the grain from the machine at will and retain any given body or mass of grain in the decorticator until it has been thoroughly cleansed or deprived of the cortical parts.

The operation of the machine may be briefly described as follows: When power is applied to the upper shaft, A, it is transmitted to the lower shaft, A', by means of the belt and pulleys described. The grain to be treated is fed into the hopper I, and the feed is regulated by adjusting the inclined slide H up or down. The grain flows in a thin stream through the feed-opening, and is evenly distributed to the revolving and stationary decorticating-surfaces, which rapidly and uniformly deprive it of the hull and germ, and allow it to be finally discharged through the longitudinal slot C, made through the shaft B.

I am aware that it is old in grain-scourers to employ rotary decorticating-disks in combination with stationary decorticating-plates, and I do not therefore broadly claim such means for treating grain.

Having thus fully described my invention, what I desire to secure by Letters Patent is—

1. The combination of the rotary roughened disks on independent shafts, arranged horizontally, the stationary interposed roughened plates E, and the radially-adjustable shaft B,

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5 having a discharge-slot through it, and a handle, B', on one end, by which it can be adjusted, all constructed and adapted to operate substantially in the manner and for the purposes described.

2. The combination, in a grain-cleaner, of an adjustable feed-regulating hopper-bottom, rotary and stationary decorticators, and radially-adjustable slotted shaft for regulating the dis-

charge of the cleaned grain from the machine, is all constructed and adapted to operate substantially in the manner and for the purposes described.

FRANZ XAVER STIEFENHOFER.

Witnesses:

CONRAD SCHEFER,  
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