

(No Model.)

D. O. DOCKENDORF.

CHAFF GUIDE FOR GRAIN SEPARATORS.

No. 350,298.

Patented Oct. 5, 1886.

Fig: 1.

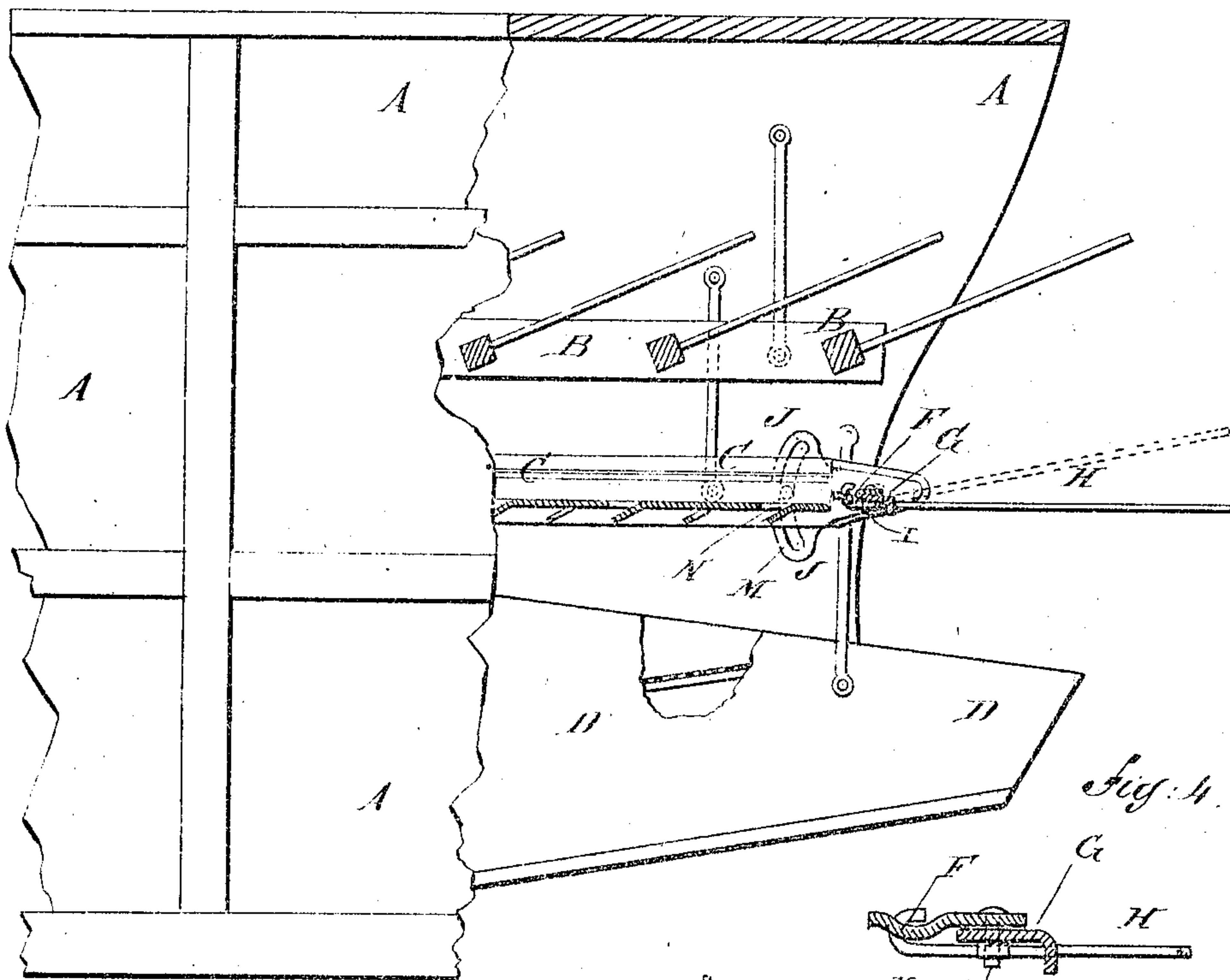


Fig: 4.

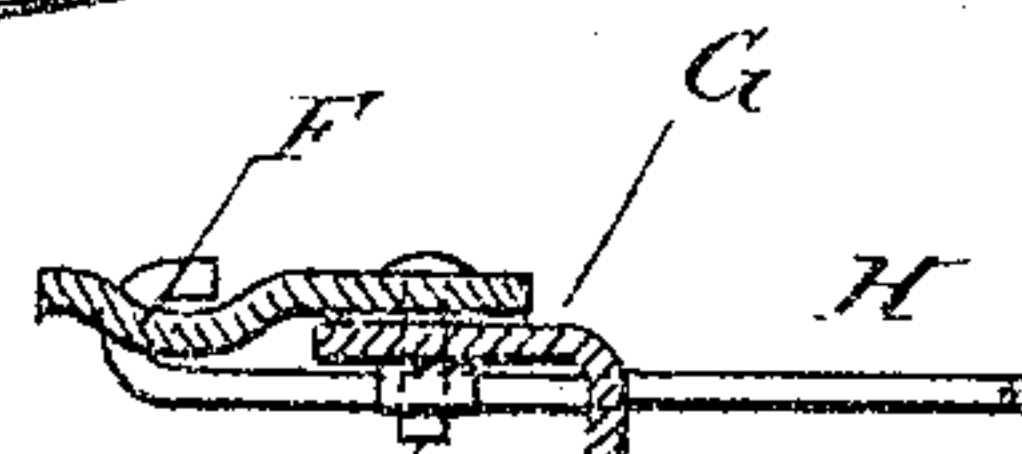
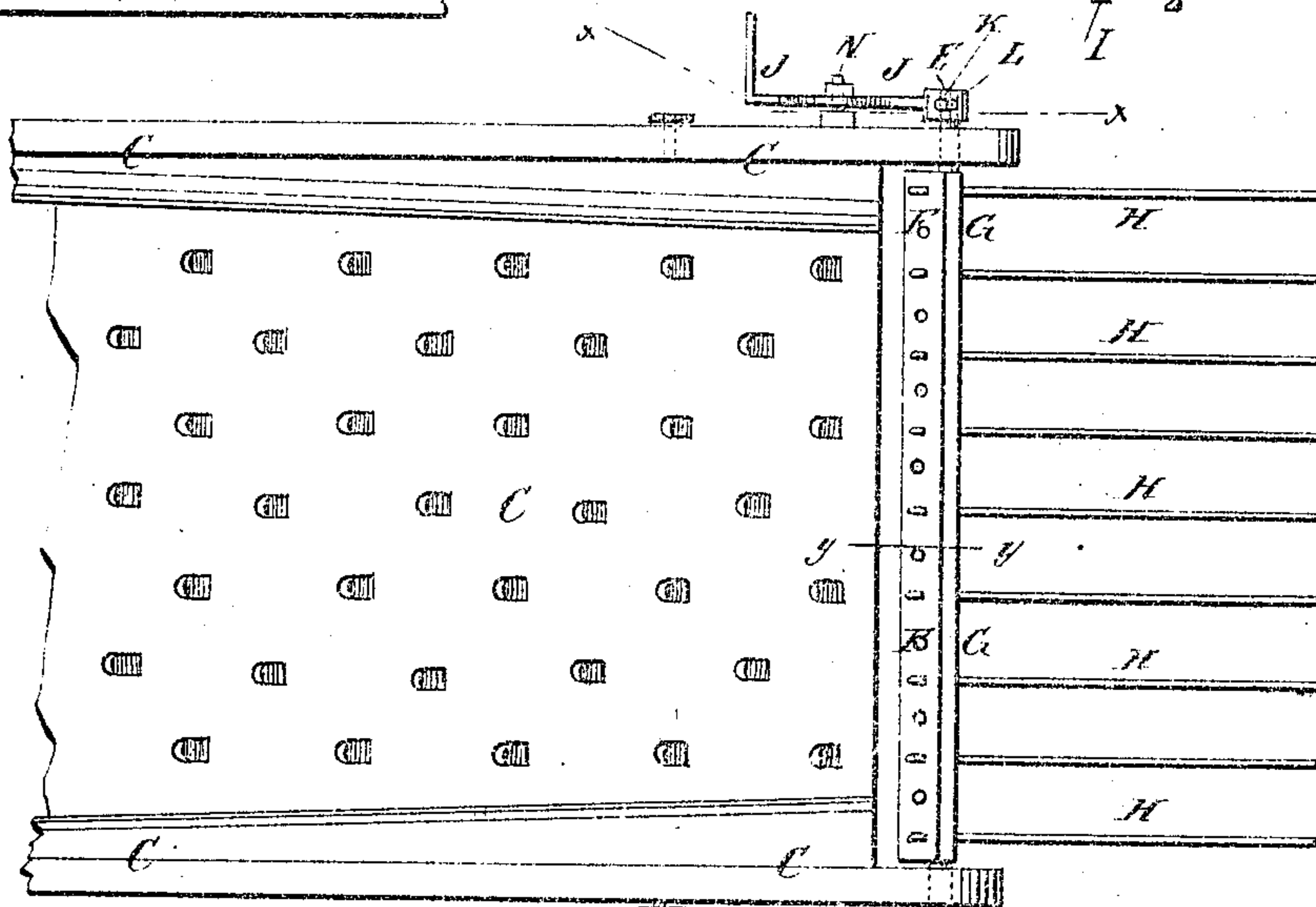


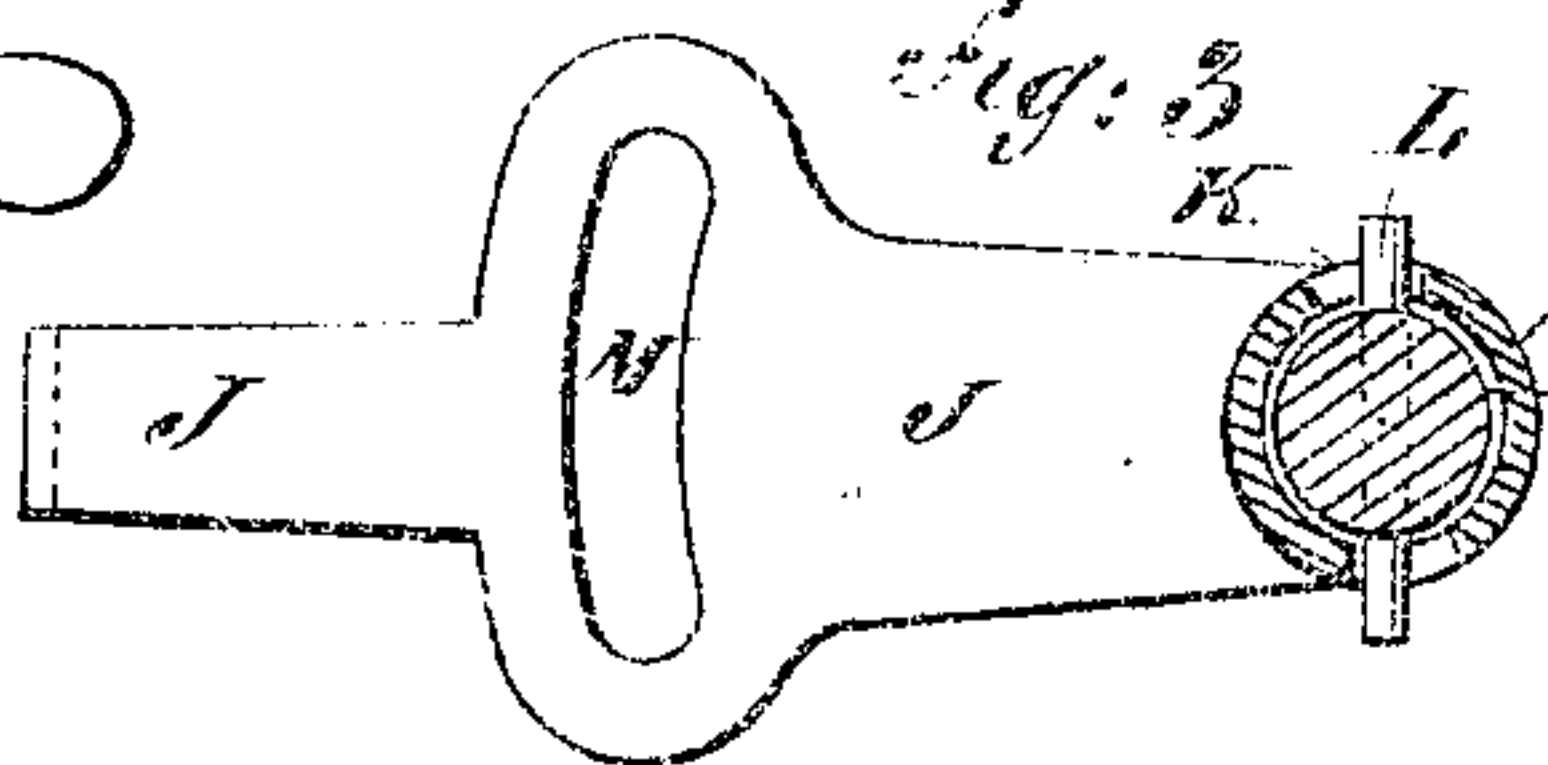
Fig: 2.



WITNESSES:

Chas. Vida
& Sedgwick

Fig: 3.



INVENTOR:

D. O. Dockendorf

BY

Munn & Co

ATTORNEYS.

UNITED STATES PATENT OFFICE.

DANIEL OSCAR DOCKENDORF, OF SHELDON, IOWA.

CHAFF-GUIDE FOR GRAIN-SEPARATORS.

SPECIFICATION forming part of Letters Patent No. 350,298, dated October 5, 1886.

Application filed December 26, 1885. Serial No. 186,747. (No model.)

To all whom it may concern:

Be it known that I, DANIEL OSCAR DOCKENDORF, of Sheldon, in the county of O'Brien and State of Iowa, have invented a new and useful Improvement in Chaff-Guides for Grain-Separators, of which the following is a full, clear, and exact description.

Reference is to be had to the accompanying drawings, forming a part of this specification, in which similar letters of reference indicate corresponding parts in all the figures.

Figure 1 is a side elevation, partly in section, of the rear part of a grain-separator to which my improvement has been applied. Fig. 2 is a plan view of my improvement and the rear part of the lower shaker. Fig. 3 is a sectional elevation of a part of the same enlarged, taken through the line *x x*, Fig. 2. Fig. 4 is a sectional elevation of the head of the chaff-guide enlarged, taken through the line *y y*, Fig. 2.

The object of this invention is to provide chaff-guides for grain-separators, by the use of which all coarse foreign matter will be carried beyond the shoe, and thus the chaff will be prevented from parrying grain with it to the stackers, and which will thus preserve the great quantity of grain carried off with the chaff, and also greatly facilitate the separation of grain in the shoe in grain-separators constructed in the ordinary manner.

The invention consists of the combinations of parts, including their construction, substantially as hereinafter set forth, and pointed out in the claims.

A represents the casing, B the upper shaker, C the lower shaker, and D the shoe, of an ordinary grain-separator. The side bars of the lower shaker, C, are extended a little to the rearward, and in the said extensions are formed bearings for the journals E of the head of the chaff-guide.

The head of the chaff-guide is formed of two plates, F G. The plate F is slightly concave upon its upper side, and convex upon its lower side, and is provided with a row of perforations along its rear edge. The forward part of the plate G is bent downward, forming a downwardly-projecting flange, and in the said flange is formed a row of perforations corresponding in position and distance apart with the perforations of the plate F.

H are the teeth or fingers, which are made of elastic wires, and have hooks formed upon their rear ends, which are hooked upward through the perforations of the plate F. The fingers H are then passed through the perforations of the plate G, and the forward part of the said plate G is slipped in beneath the rear part of the plate F, bringing the ends of the hooks into the concavity of the said plate F, and the two plates F G are secured to each other by bolts I, binding the fingers H securely in place. By this construction the upper side of the chaff guide will be left smooth, and will offer no obstruction to the rearward movement of the chaff. By this construction, also, the chaff guide can be readily taken apart, and fingers inserted or removed to regulate the distance apart of the fingers as the kind of grain to be operated upon may require.

One journal, E, of the chaff-guide projects and passes through the eyes of the crank-arm J, which has a short slot, K, formed in it to receive the pin or bolt L, that secures the said crank-arm to the said journal, so that the said journal will have a slight play within the eye of the said crank-arm. The outer part of the crank-arm J is widened, and a curved slot, M, formed in it to receive the bolt N, that secures the said crank-arm to the side bar of the lower shaker, G. The slot M is curved upon the arc of a circle having its center in the axis of the journal E, so that by loosening the said bolt N the chaff-guide can be readily adjusted in a horizontal, an upwardly-inclined, or a downwardly-inclined position, as circumstances may require. With this construction, as the lower shaker, C, is vibrated longitudinally the elasticity of the fingers H and the slots K in the eyes of the crank-arms J give an uplift to the said fingers and to the chaff that may be upon them, shaking out the grain that may be in the chaff, and facilitating the rearward passage of the said chaff to the stacker.

A great advantage of this improvement is that this chaff-guide relieves the shoe from all coarse foreign matter, and thereby greatly facilitates the separation of the grain and chaff in the said shoe.

Having thus fully described my invention, I claim as new and desire to secure by Letters Patent—

1. The chaff-guide consisting of the perforated plate F, concave upon the upper side and convex upon the lower side, the plate G, having a perforated flange on its forward edge, the fingers H, having hooks upon their rear ends interlocking with plates F, and means for detachably securing said plates together, whereby fingers can be readily taken out or put in, as set forth.
2. The combination of the journal E, the

chaff-guide F G H, the crank-arm J, having an eye formed with a short slot, K, and the pin L, substantially as herein shown and described, whereby the said journal will have a little play in the said eye, as set forth.

DANIEL OSCAR DOCKENDORF.

Witnesses:

J. C. O'DONNELL,
E. RIDDELL.