(No Model.)

T. M. BALES.

COCKLE MACHINE.

No. 250,870. Patented Dec. 13, 1881.

Fig. 1.

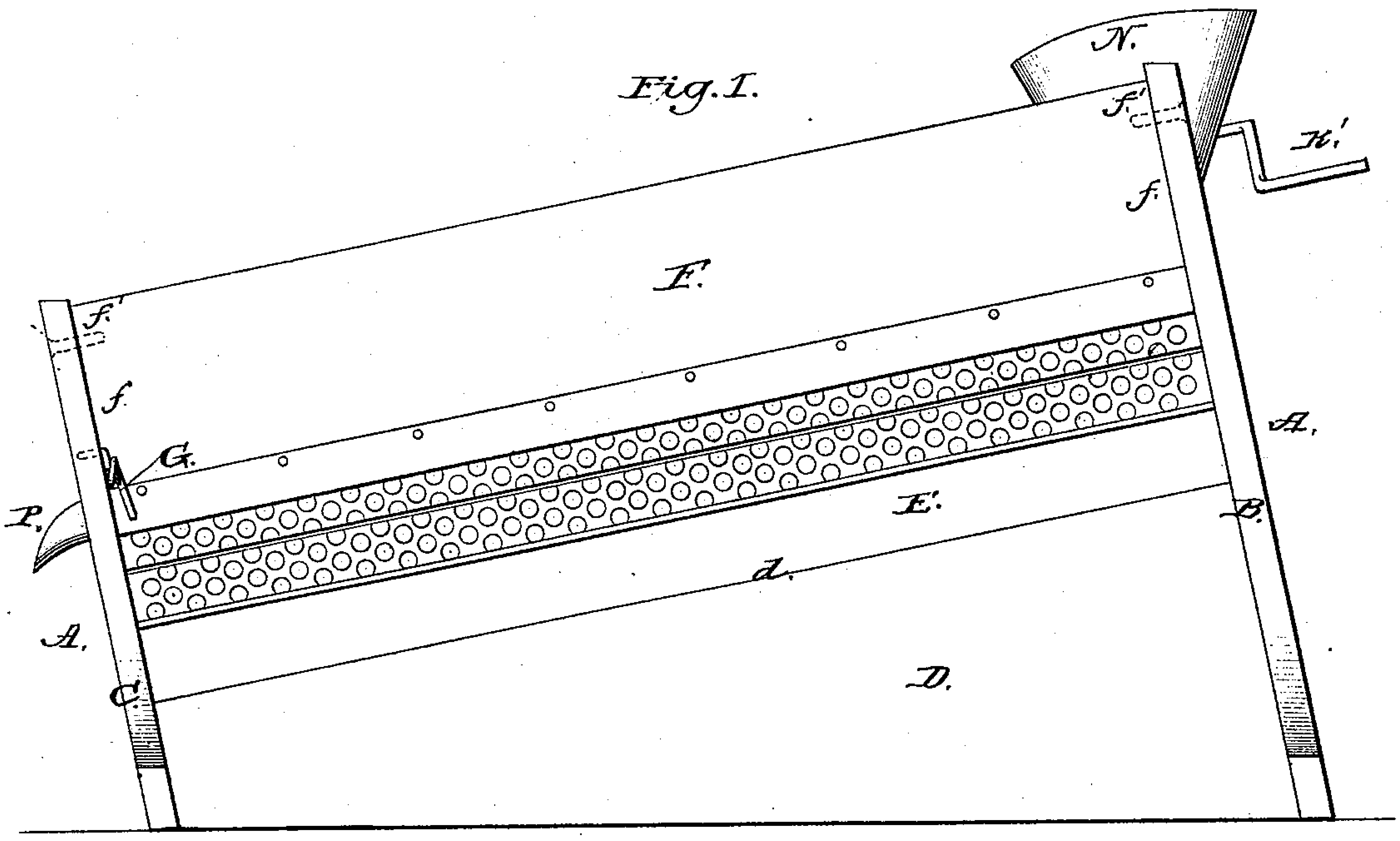
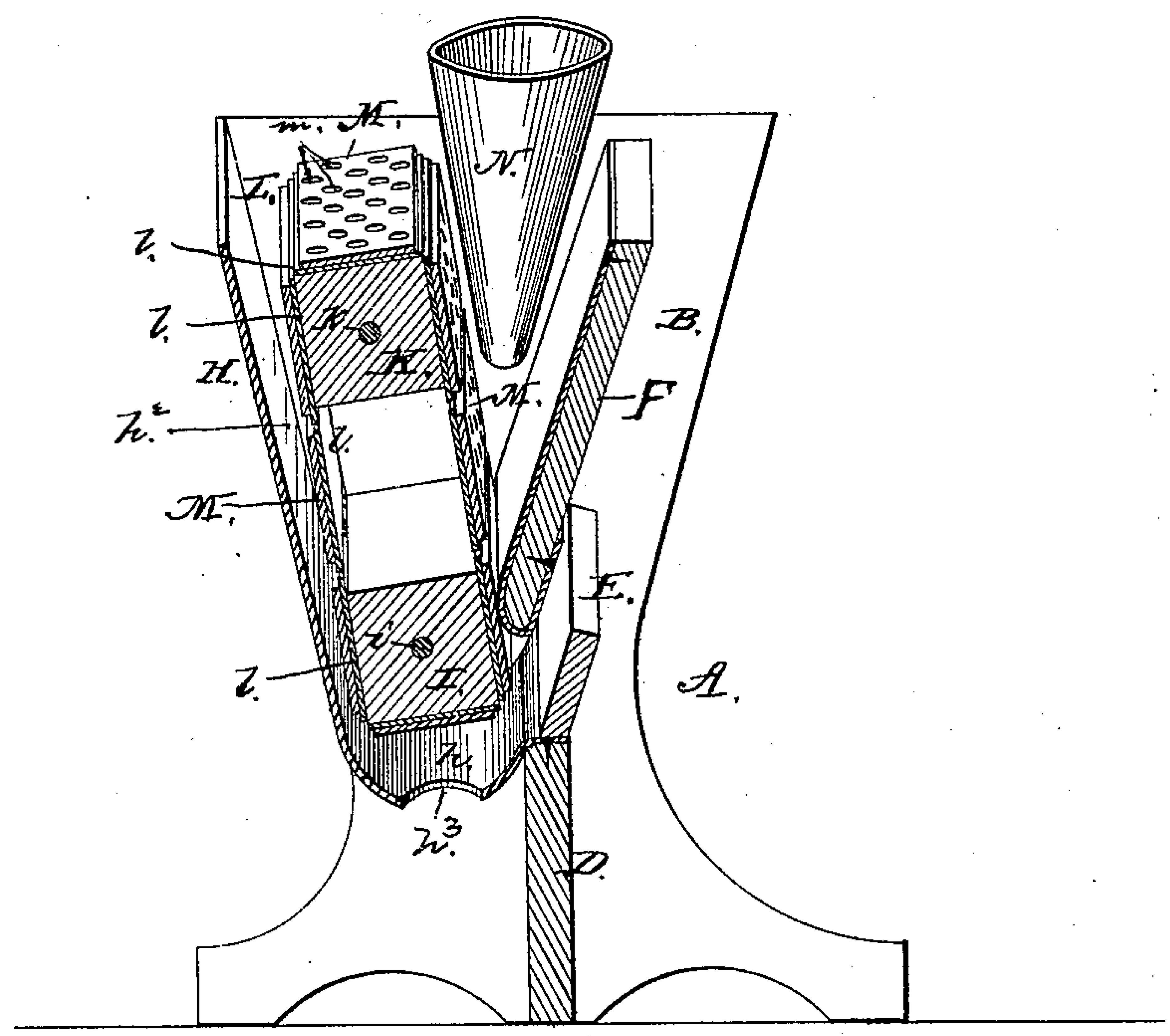


Fig. 2.



WITNESSES

John A. Ellis.
Philip C. Masi.

INVENTOR

T. M. Bales,
by Anderson & Smith
his ATTORNEYS

N. PETERS. Photo-Lithographer. Washington, D. C.

UNITED STATES PATENT OFFICE.

THOMAS M. BALES, OF DUBLIN, INDIANA.

COCKLE-MACHINE.

SPECIFICATION forming part of Letters Patent No. 250,870, dated December 13, 1881.

Application filed March 29, 1881. (No model.)

To all whom it may concern:

Be it known that I, THOMAS MONROE BALES, a citizen of the United States, resident at Dublin, in the county of Wayne and State of Indiana, have invented certain new and useful Improvements in Cockle-Machines; 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 appertains to make and use the same, reference being had to the accompanying drawings, and to letters or figures of reference marked thereon, which form a part of this specification.

Figure 1 is a representation of a side elevation of my device, and Fig. 2 is a cross-section thereof.

This invention relates to improvements in cockle-machines.

The invention consists in the construction hereinafter set forth, and particularly pointed out in the claims.

In the annexed drawings, A is the frame of the device, B being the head, C the foot, and D the connecting-board, having the slant *d* at top. Secured above board D is the strip E, having an outward upward flare. Pivoted at the upper corners, *f'*, of its ends *f* to the head and foot is the board F, having the downward slant shown. This board is lined inside with metal, which is turned up on the under edge. Springs G G, pressing against the lower corners, f^2, of the ends of this board, force it inward with a yielding pressure, which gives it a flare. This forms one side of the machine. The other side, H, is a piece of metal secured to the head and foot at its ends, its bottom *h* being curved under and inward and secured to the top of board D.

I K are two rollers, round or angular, having their journals *i k* working in the head and foot, one of them provided with the handle *k'*. These rollers have the slant of the frame.

L is an endless belt, having a width equal to the length of the rollers. This belt is composed of strips of metal, *l*, preferably tin, hinged together at their ends, said strips having secured to their upper surfaces similar-shaped strips, M, preferably of zinc, provided with perforations *m*, too small and shallow to catch wheat-grains, the strip L forming the bottom of the recesses made by such perforations.

The rollers I and K are not situated in a vertical plane; but the lower one is somewhat out of the vertical plane of the other toward the board D, so that when the belting is on the surface of the latter will come in sharp contact with the lower edge of said board, and the slant of the two forms a trough, at the upper end of which is located the hopper N and at the lower the spout P. This belting L is located with relation to the metal side H so as to be off from its vertical portion, leaving a passage, h^2, and from its curved bottom, forming therein a trough, which has opening h^3 at the bottom of its lower end, inside the foot C.

The grain—wheat or other grain—mixed with cockle is poured into hopper N and the belt L is turned by the handle *k'*. As the sections come up and the hinges move the yielding spring-pressure on the side board, F, allows for the deviations in said sections caused by the hinge movement. The stuff poured in runs down the inclined trough formed between board F and belt L, and the recesses in the sections of the latter catch the cockle and separate it from the grain, carrying it over and dropping it in trough h^2 below, from which it slides through openings h^3 to the ground beneath. The recesses not being large enough to hold the grain, and their bottoms being made of metal too smooth to hold the grain by friction, particularly wheat, which is quite fuzzy, it runs down and out of spout P into a receptacle placed below. The width given to the sections and the slant to the belt present a straight and almost vertical wall to the wheat, which keeps any drag from carrying the grain up.

I claim—

1. In a cockle-machine, the combination, with the inclined frame A, of the inclined angular rotating shafts I K, the lower one being placed to cause the endless belt to incline upwardly and outwardly, as shown, the endless belt L, consisting of hinged plates extending lengthwise of the rotating shafts and having their surfaces covered by perforated plates of a size corresponding thereto, and the metal-lined pivoted side F, inclined toward the belt, and forming in connection therewith an inclined

trough governed by spring-pressure, substantially as and for the purposes set forth.

2. In a cockle-machine, the combination, with the inclined rotating shafts I and K and the sectional hinged endless belt, constructed as described, of the metal side H, secured to the ends of the frame and the top of the center board, D, to form trough *h* and space h^2, substantially as specified.

3. In a cockle-machine, the combination, with the endless belt, metal side H, trough *h*, and center board, D, constructed as described, of the inclined strip E and the pivoted inclined side F, substantially as and for the purposes specified.

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

THOMAS M. BALES.

Witnesses:
HENRY N. BROWN,
JASPER HOLLAND.