A. B. ALLEN.

Corn Sheller.

No. 35,864. Patented July 15, 1862.

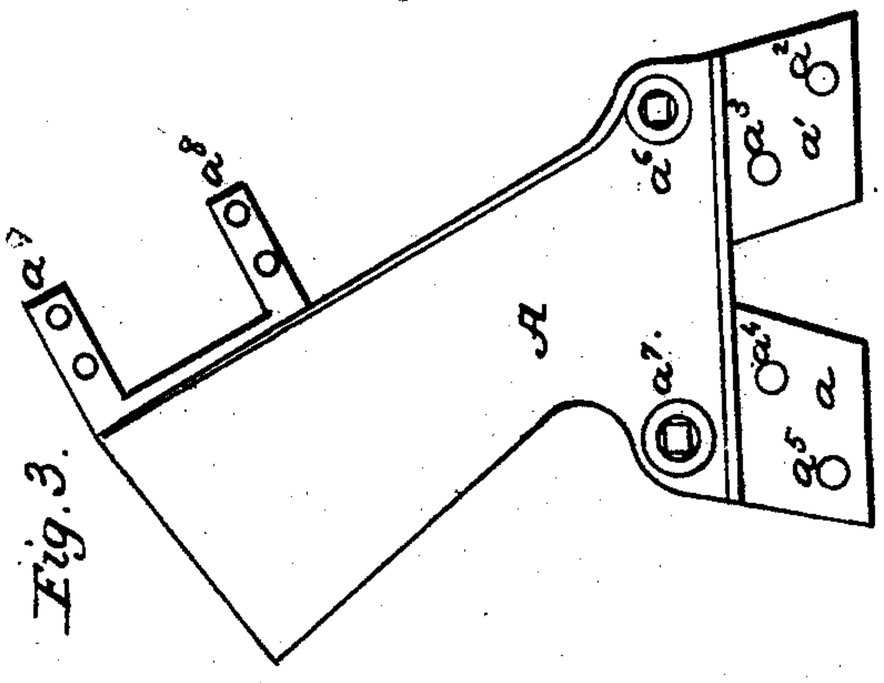

Fig. 3.

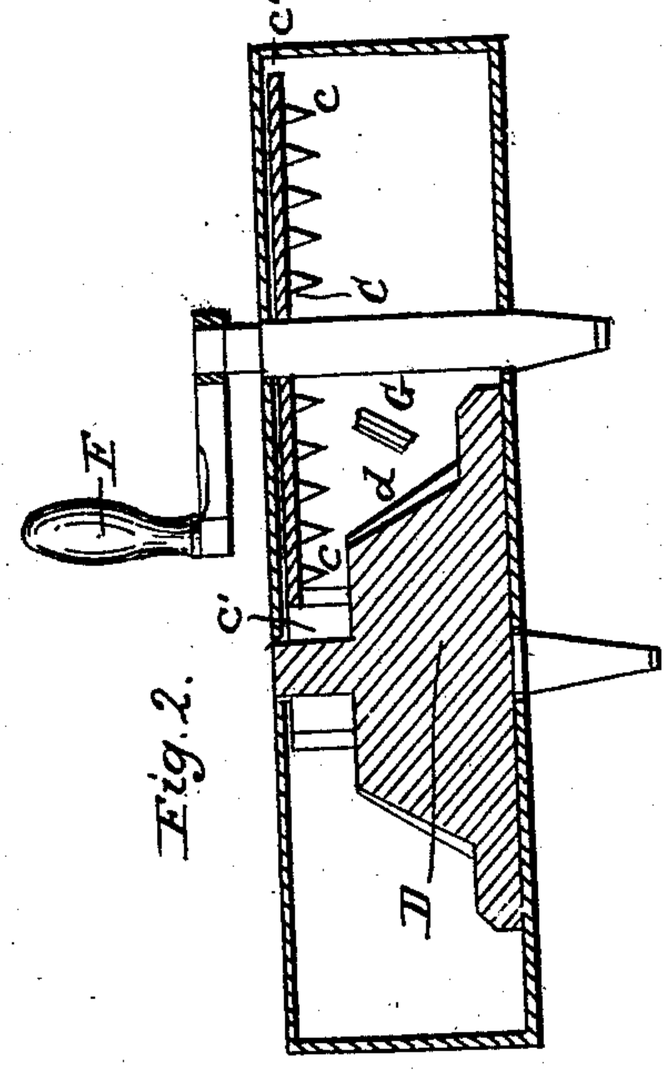

Fig. 2.

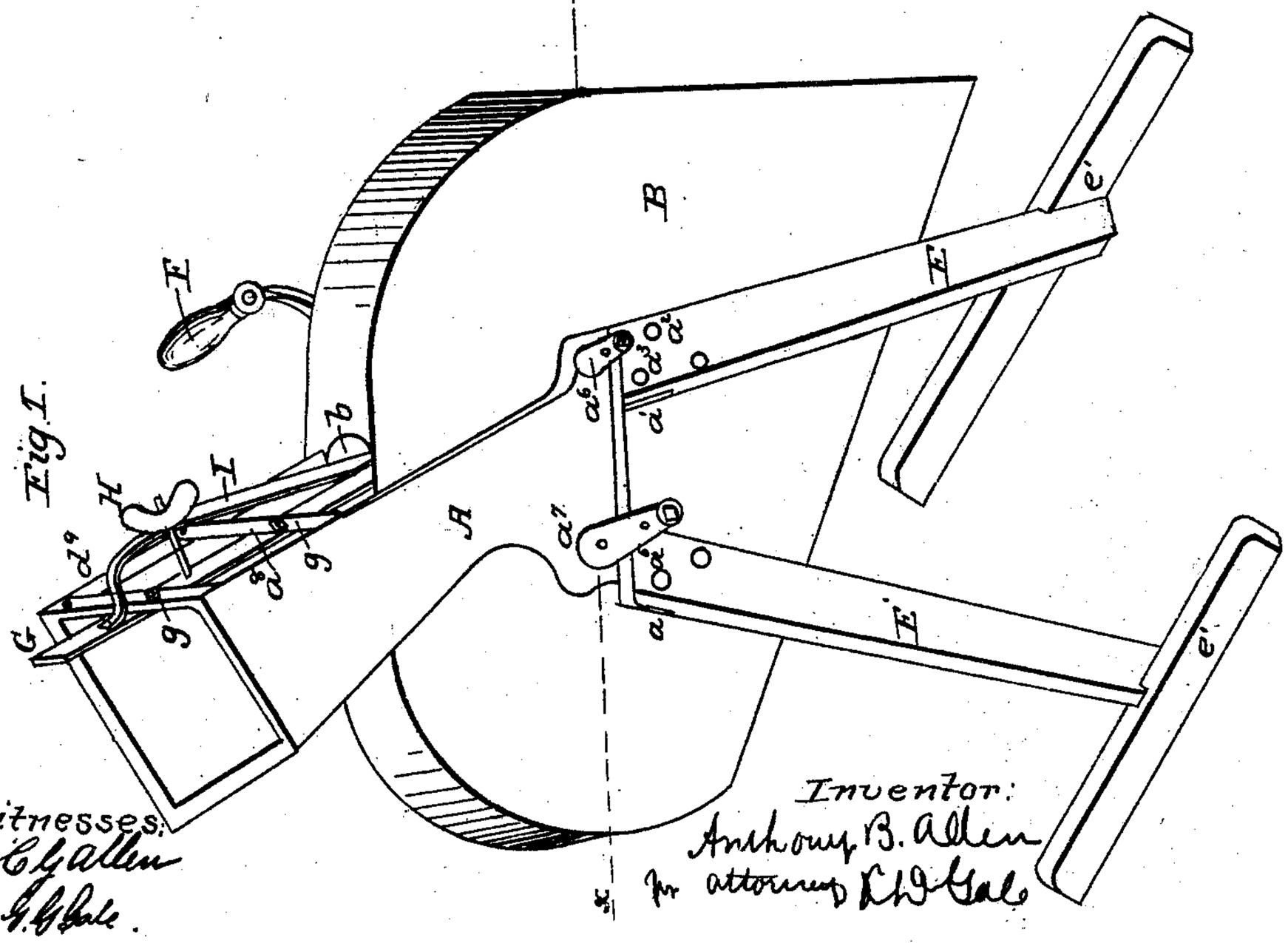

Fig. 1.

Witnesses:
C. G. Allen
G. G. Gale.

Inventor:
Anthony B. Allen
per attorneys C. G. & G. Gale

UNITED STATES PATENT OFFICE.

ANTHONY B. ALLEN, OF NEW YORK, N. Y.

IMPROVEMENT IN CORN-SHELLERS.

Specification forming part of Letters Patent No. **35,864**, dated July 15, 1862.

To all whom it may concern:

Be it known that I, ANTHONY B. ALLEN, of the city of New York and State of New York, have invented certain new and useful Improvements in Corn-Shelling Machines; and I hereby declare that the following is a full and sufficient description thereof, reference being had to the accompanying drawings and reference-letters marked thereon.

The nature of the invention respects the form and construction of a certain metal casting, which I denominate the "standard," of a corn or maize sheller. This standard constitutes the most elevated part of the machine, and forms one side of the hopper, into which the material is to be fed. This same standard sustains the journal-bearings of the moving parts of the machine, and also supports the spring which holds the ears of corn up to the faces of the spur-wheel and bevel-wheel while the seed is being removed from the cob.

In the annexed drawings, Figure 1 represents a perspective of the machine. Fig. 2 shows a horizontal section through *x x* of Fig. 1; Fig. 3, a separate or detached view of the standard.

In the drawings the same figures or letters refer to the same parts.

A represents the metallic standard of the machine.

B is the box or body of the machine, within which is contained the moving-gear.

C is the spur-wheel, with a row of cogs on the border.

D is the bevel-wheel acting as a balance-wheel and having ribs *d* on its beveled periphery to enable it to combine its action with that of G and C, as hereinafter to be explained.

E are the legs of the machine; *e e'* are the feet; F, the crank-handle.

G is the spring for pressing the ear of corn between the face of the spur-wheel C and the ribs of the bevel-wheel D. It is made of wood, and the spring part is below a^8.

H is the thumb screw or nut which controls the spring G.

I is the metallic spring, which has a bearing on the upper part of wooden spring G, and by screwing up H the lower portion of I presses against the lower portion of G and forces it forward against the spurs of C and the ribs *d*.

a a' represent the lower projecting flanges of standard A, halved into legs E and bolted thereto by bolts adapted to bolt-holes a^2 a^3 a^4 a^5.

a^6 a^7 are the journals and boxes of the spur-wheel and bevel balance-wheel, respectively.

b represents the opening of the top of the box for receiving springs G and I, and for inspecting the internal parts of the machine.

c represents the individual spurs of the wheel C, which cover equally the whole disk; *c'*, the pinions on the border.

d represents the sharp-edged ribs of the bevel-wheel, the cross-section of which is fairly represented by the lateral middle ridge of the musket-bayonet, the sides of which ridge are concave, or slightly so, although I sometimes make the ribs triangular with straight sides. This form and that are not represented in the drawings, as no claim is based upon them.

a^8 a^9 are lateral flanges projecting rearward from the upper part of standard A, for the purpose of bracing the hopper and forming supports to the wooden spring by means of bolts *g*.

From what has now been said it will be perceived that the whole gist of the invention rests on the construction of the metallic standard-piece A. As a matter of business, it is cheaper to make the standard in a single piece or casting, and the plan is so to make it; but it is also capable of being made in separate pieces and bolted together. The chief object and design of the inventor was to obtain a metallic casting standard-piece capable of being cast in a single piece, if desired, and of forming the principal journal-bearings of the working-gear, and at the same time acting as a support to the springs, while itself is firmly supported by being halved into the wooden legs E, as seen in the drawings. This casting, when it is once made, requires but a small amount of labor and expense in finishing up. The machine will consist substantially of three metal castings—the standard, the bevel-wheel, and the spur-wheel—which,

with the box and legs, form the simplest and cheapest machine in the market.

Having now fully described the nature of the invention and the mode of using the same, what I claim as my invention, and desire to secure by Letters Patent, is—

The metallic standard-piece A, constituting one side of the hopper, bearing for spur-wheel C and for the beveled balance-wheel, also constituting a support for holding spring I by means of the flanges a^8 and a^9, whether said standard be made in one or more pieces, substantially in the manner and for the purposes set forth.

ANTHONY B. ALLEN.

Witnesses:

RICHARD H. ALLEN,

HENRY J. CREIGHTON, Jr.