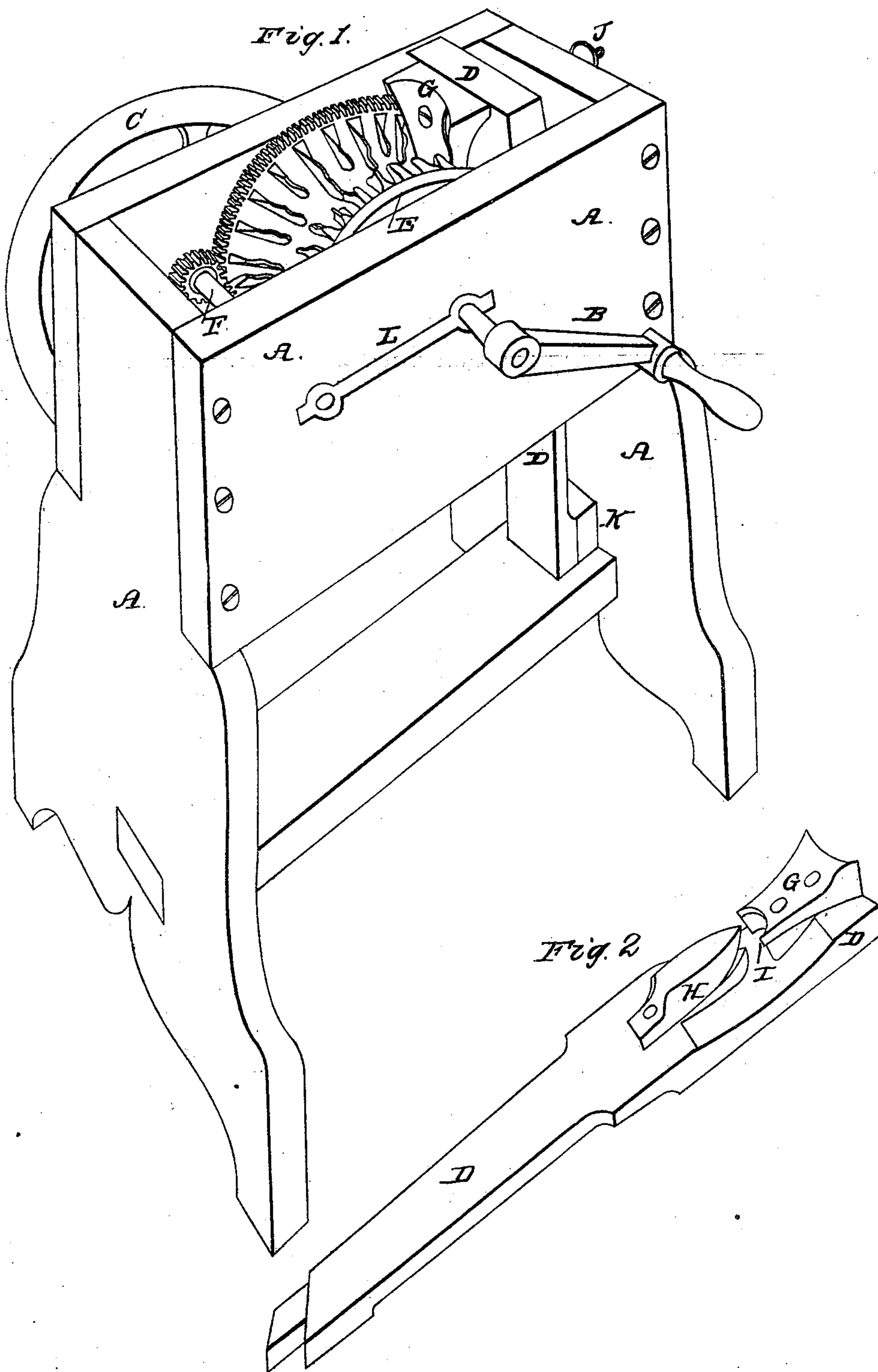


D. ELDRIDGE.

Corn Sheller.

No. 8,978.

Patented June 1, 1852.



UNITED STATES PATENT OFFICE.

DAVID ELDRIDGE, OF PHILADELPHIA, PENNSYLVANIA.

CORN-SHELLER.

Specification of Letters Patent No. 8,978, dated June 1, 1852.

To all whom it may concern:

Be it known that I, DAVID ELDRIDGE, of Philadelphia, in the county of Philadelphia and State of Pennsylvania, have invented a new and useful Improvement in Corn-Shellers; and I do hereby declare that the following is a full, clear, and exact description of the construction and operation of the same, reference being had to the annexed drawing, making a part of this specification, in which—

Figure 1, is a perspective view, Fig. 2, a section showing the spring, &c.

A₁ A₁₁ A₁₁₁ A₁₁₁₁ represents the frame; B, the crank; C, the fly wheel; D₁ D₁₁ the spring; E, the concave wheel; F, the shaft and pinion; G, a guard; H, a conical concave wedge; I is a space cut in the spring through which the corn may escape; J, a thumb screw to regulate the spring; K, a common block to stiffen the spring; L, the boxes in which the journals run.

To enable others skilled in the art to make and use my improvement, I will proceed to describe its construction and operation.

The concave wheel E, can be made of any required size, but I find that from seven to eight inches in diameter is quite large enough, it is made of cast iron in two pieces, and so fastened together on the shaft so as to form one wheel of about three and a half inches in thickness; the concave is about one and three quarters of an inch in width and about the same in depth. This wheel takes off the corn on one side of the ear, and at the same time draws it through, so that the concave wedge takes it off on the other. Its weight need not exceed eight or nine pounds.

The conical concave wedge H, is made of cast iron about one and three quarters of an inch at the larger end, and about the same in length, the small end about a quarter of an inch in width and perfectly sharp, so as to cut off one or more rows just at the root of the grain, "which grain escapes through the space cut in the spring marked I." The rest is pressed off sidewise by the wedge.

The guard G, is made of cast iron concaved so as to fit the ear, and is to guard it properly on the wedge. The wedge should extend out past the guard about a half inch more or less according to the depth of the

grains of corn in different sections of the country. The spring D₁ D₁₁ can be made of ash, or any other suitable wood, it can be placed in any required position, but I have set it perpendicular so as to make it more convenient to feed, as some ears may require a slight pressure when first put in. The pinion which turns the fly wheel should be made as small as can well be, so as to give as much speed as possible. The more it has, the less weight it will require, its weight when so geared need not exceed eight or ten pounds; the former quite heavy enough for a crank, the latter sufficiently so for to run with a treadle. The cobs "if required," can be separated from the corn by placing a coarse wire screen underneath, so that the corn may pass through it while the cob is carried off by the screen.

My improvement in corn-shellers is for the purpose of cheapening their construction and facilitating the labor of shelling. By this improvement a part of the corn is shelled endwise or lengthwise of the ear, a part is cut off by the point of the wedge, and the remainder pressed off sidewise by the wedge; the cob passing straight through without revolving; thereby requiring no gearing to increase its speed which adds so materially in the cost of construction, as well as in the power required to drive most all other shellers. This machine may be made to run either with or without a fly-wheel, but with a small fly wheel weighing only ten pounds it runs so very easy that a small boy only eight or ten years of age can turn it with perfect ease; or it can be run by a treadle leaving both hands free so that one man can both turn and feed it at the same time.

What I claim as new, and my improvement, and desire to secure by Letters Patent, is—

The combination of the conical concave wedge H, and the guard G, with the concave wheel E, for shelling corn as herein described.

DAVID ELDRIDGE.

Witnesses:

STEPHEN USTICK,
WM. B. AITKEN.