

F. C. WHILEY.

Improvement in Corn-Shellers.

No. 127,127.

Patented May 21, 1872.

Fig. 1.

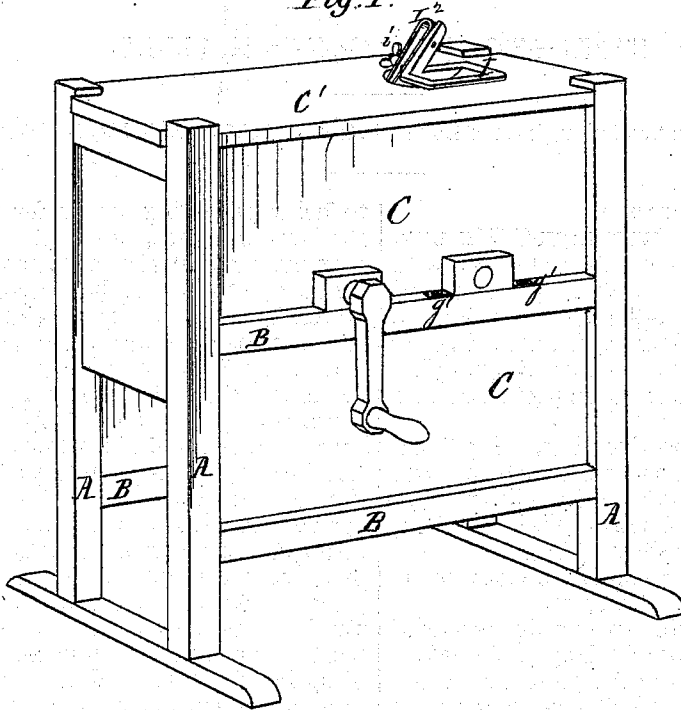


Fig. 2.

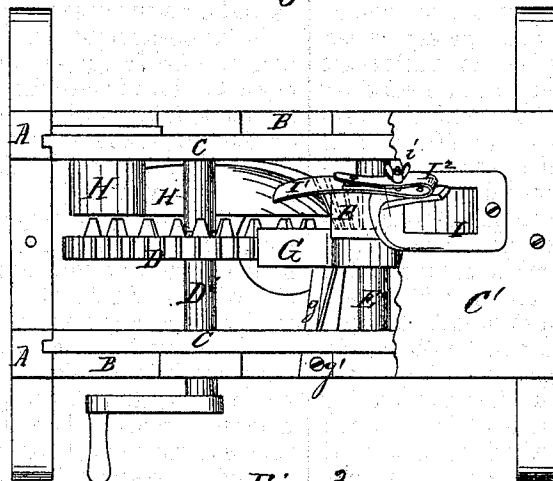
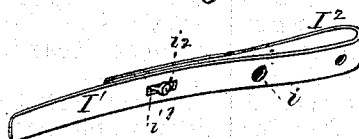


Fig. 3.



Witnesses.

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FREDERICK C. WHILEY, OF LANCASTER, OHIO.

IMPROVEMENT IN CORN-SHELLERS.

Specification forming part of Letters Patent No. 127,127, dated May 21, 1872.

To all whom it may concern:

Be it known that I, FREDERICK C. WHILEY, of Lancaster, county of Fairfield, State of Ohio, have invented certain new and useful Improvements in Corn-Shellers, of which the following is a full, clear, and exact description, reference being had to the accompanying drawing making part of this specification, in which—

Figure 1 is a perspective view. Fig. 2 is a top view with a portion of the shell or case broken away; and Fig. 3 is a detached view of the tongue, to which the rag-piece is attached, together with its actuating spring.

Similar letters of reference denote corresponding parts in all the figures.

The invention relates to certain details of construction, which will be fully explained.

In the drawing, A are the posts, and B the girts, which constitute the frame-work of the sheller. C are the sides, the upper piece being usually fitted into grooves or gains cut in the posts, in order that they may be conveniently removed. C' is the top, secured to the body of the case by screws, or in any usual or convenient manner. D is the picker-wheel, mounted upon and driven by the crank-shaft D'. E is a ribbed or fluted wheel, operating, in connection with the picker-wheel D, to remove the corn from the cob. Wheel E is mounted on shaft E', which carries a spur-pinion, gearing with the spurred rim of picker-wheel D. G is a shield or grain-guard, arranged above the gear-wheels, to protect them from the flying grain or other matter which would otherwise obstruct them. This shield is made, preferably, of sheet metal, stamped or swaged into the desired form, with the exception of the angular braces g, which are made separately and added after the swaging has been done. It (the shield) is provided with ears g', by means of which it is secured to one of the girts. H is a cob-carrier, employed for confining the ear in close contact with the picker-wheel, and to guide the cob to the delivery or outlet H'. The carrier is made in substantially the usual form; but the delivery or outlet, instead of being arranged at the end of the sheller, is placed in the side; the object of this arrangement of parts being

to facilitate casting the carrier and the outlet-shell in one piece, as it will be readily seen that the conformation of these parts is such that they can, under the arrangement shown, be readily drawn from the sand in molding. I is the hopper, through which the ears are fed. I¹ (see Fig. 3) is the throat-piece, to the lower or inner end of which the rag-piece is usually attached. I² is a spring, employed to press the rag-piece and ears toward the picker-wheel. The throat-piece is secured to the upper portion of the hopper, and the tension of the spring I² is regulated by means of a thumb-screw, i. In practice I usually make the rag-piece, throat-piece, and spring all of a single piece of metal, as in Fig. 3; but this construction is not essential. The throat-piece is slotted at a point nearly opposite to the free end of spring I², as at i¹, Fig. 3; and the end of said spring has a short stud, i², attached to it and projecting through the slot, and provided at the end with a flat head which is too wide to be withdrawn through the slot; the object of this being to limit the throw of the piece I¹, as and for a purpose which I will now explain.

It has been found that in order to shell small ears of corn the rag-piece must be held very close to the picker-wheel; and, also, that to accommodate very large ears it (the rag-piece, or the throat-piece, to which it is attached) must be made quite elastic and yielding; hence it is very liable, when a large ear has passed through, to snap down so far as to become engaged with the picker-wheel, to the serious injury of both parts; but by the addition of stop i² this difficulty is entirely obviated, as the rag-piece cannot go below a certain point without carrying spring I² with it.

By combining and making the cob-carrier and delivery-shell in one piece the cost of manufacture is materially reduced, and at the same time convenience of construction is increased, as both parts can be readily and effectually secured to one of the girts B of the sheller, so that the sides C can be removed without disturbing or loosening either the carrier or the outlet-shell.

I do not claim, broadly, an adjustable throat-piece or rag-piece, nor the employment in connection therewith of a stop for limiting its

throw, as they are admitted to be old; but in the construction heretofore employed three separate parts were required, each of which is detached from the other, and all secured to the frame-work of the machine at different points; whereas in my machine all three parts are either made in one piece or are connected with each other, and may be readily attached to the machine by a single bolt.

Having now described my invention, what

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

The combination of the slotted throat-piece I^1 , spring I^2 , and stop i^2 , the stop being formed in one piece with or attached to the spring I^2 , substantially as and for the purpose set forth.

FREDERICK C. WHILEY.

Witnesses:

SAML. WHILEY,

H. C. DRINKLE.