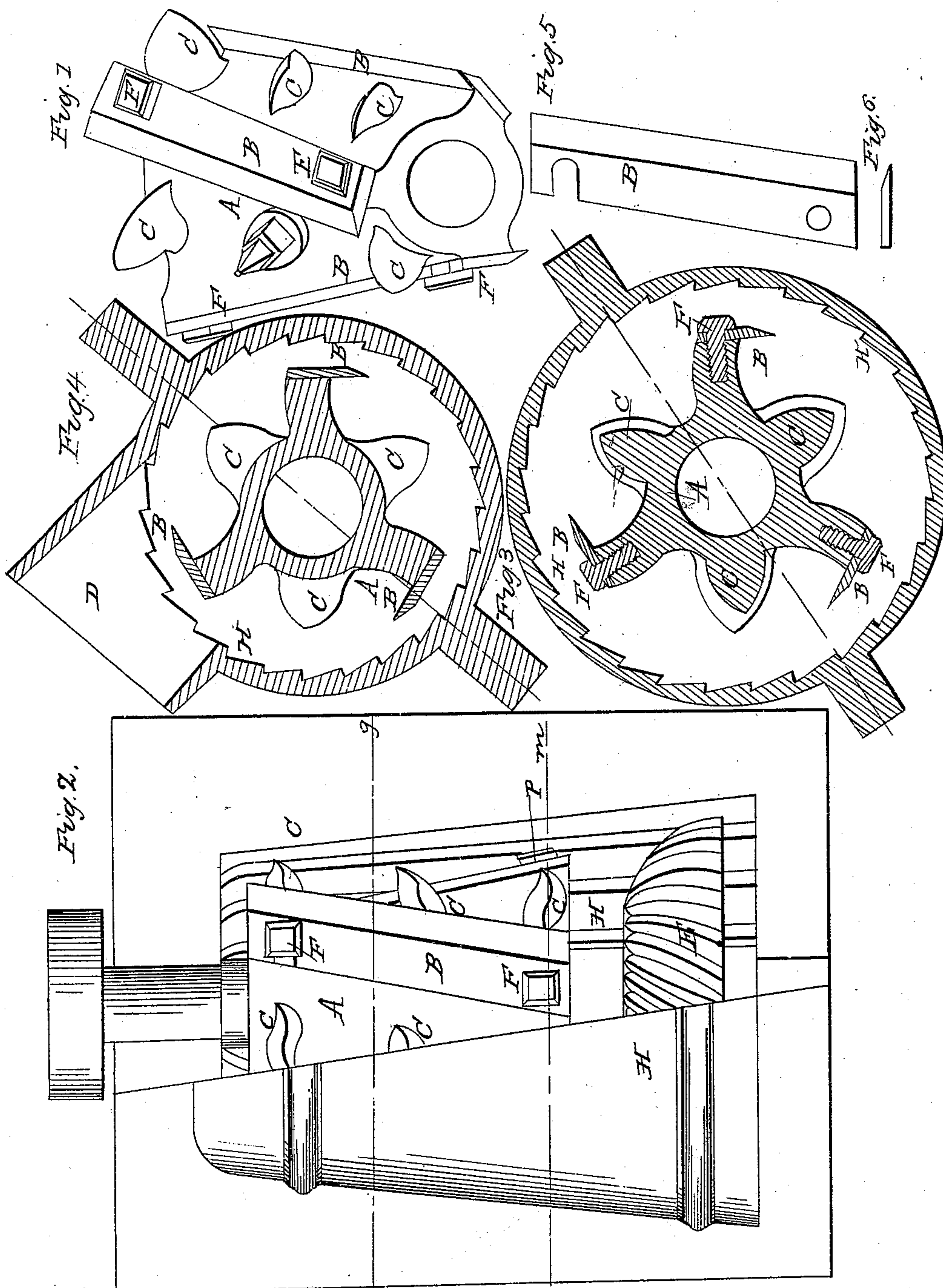


S. B. SHINN.

Grain Mill.

No. 23,865.

Patented May 3, 1859.



ATTEST
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SAMUEL B. SHINN, OF PHILADELPHIA, PENNSYLVANIA.

CORN AND COB CUTTER.

Specification of Letters Patent No. 23,865, dated May 3, 1859.

To all whom it may concern:

Be it known that I, SAMUEL B. SHINN, of the city of Philadelphia, in the county of Philadelphia, State of Pennsylvania, have
5 invented a new Mode of Cutting and Crushing Corncobs with Corn or other Hard Substances such as are used in Grist or Portable Mills; and I do hereby declare that the following is a full and exact description
10 thereof, reference being had to the accompanying drawings and to the letters of reference marked thereon.

Figure 1 is a perspective view of the cutter head A with knives and crushers attached.
15 Fig. 2 is a longitudinal elevation of a grinding mill with my invention attached. Fig. 3 is a transverse vertical section through *m*, *m*. Fig. 4 is a transverse vertical section through *g*, *g*, showing feed hopper D. Fig.
20 5 is a plan view of the knife. Fig. 6 is a transverse section of knife.

My invention consists in the peculiar construction of the cutter head A with or without the knives B and crushers C. My first
25 claim relates to this. To describe it more fully I would state that in mills where brittle or easily broken substances are to be ground the knives B and crushers C are not requisite, the blades of the head per-
30 forming the work as well, but where damp, wet, tough, or fibrous substances are to be ground it is necessary that the knives B and crushers C should be used. The blades of the head are those parts upon which the
35 knives B are fastened. To describe the construction of the cutter head A more fully I would state that with the taper to the head the blades are set at an angle. By this

construction of the cutter head A I not only obtain a shear cut but a great propelling
40 force of the cut and crushed substance toward the grinding bur E. This propelling nature of the cutter head A keeps the grinding bur E constantly supplied with the proper amount of cut and crushed material.

In applying my invention to all grist or
45 portable mills I would state that in the longitudinal elevated mill H shown in the drawings the cutter head A is applied longitudinally beneath the hopper D but in vertical or upright mills I either place it in the
50 hopper or below it in a cavity, in a vertical position. The knives B are held in position by screws F or any other suitable means the substance to be cut and crushed is fed
55 in at hopper D peculiar to all grinding mills.

I do not mean to be understood as confining myself to any particular angle of the knives B or blades of the head A nor to the
60 number of the knives B or crushers C or blades upon the head A nor do I claim the knives B separately considered for I am aware that they are used for other purposes nor do I claim the concaves of the mill H
65 or the bur E placed therein. But

What I do claim is—

The peculiar construction of the cutter head A as specified with or without the combination of the knives B and crushers C ar-
70 ranged and operating in the manner and for the purpose set forth and specified.

SAM. B. SHINN.

Witnesses:

CHAS. F. HELLFRICHT,
WM. I. BERRY.