(No Model.)

2 Sheets—Sheet 1.

W. EBERHARD.

Oatmeal Machine.

No. 242,762. Patented June 14, 1881.

Fig. 1.

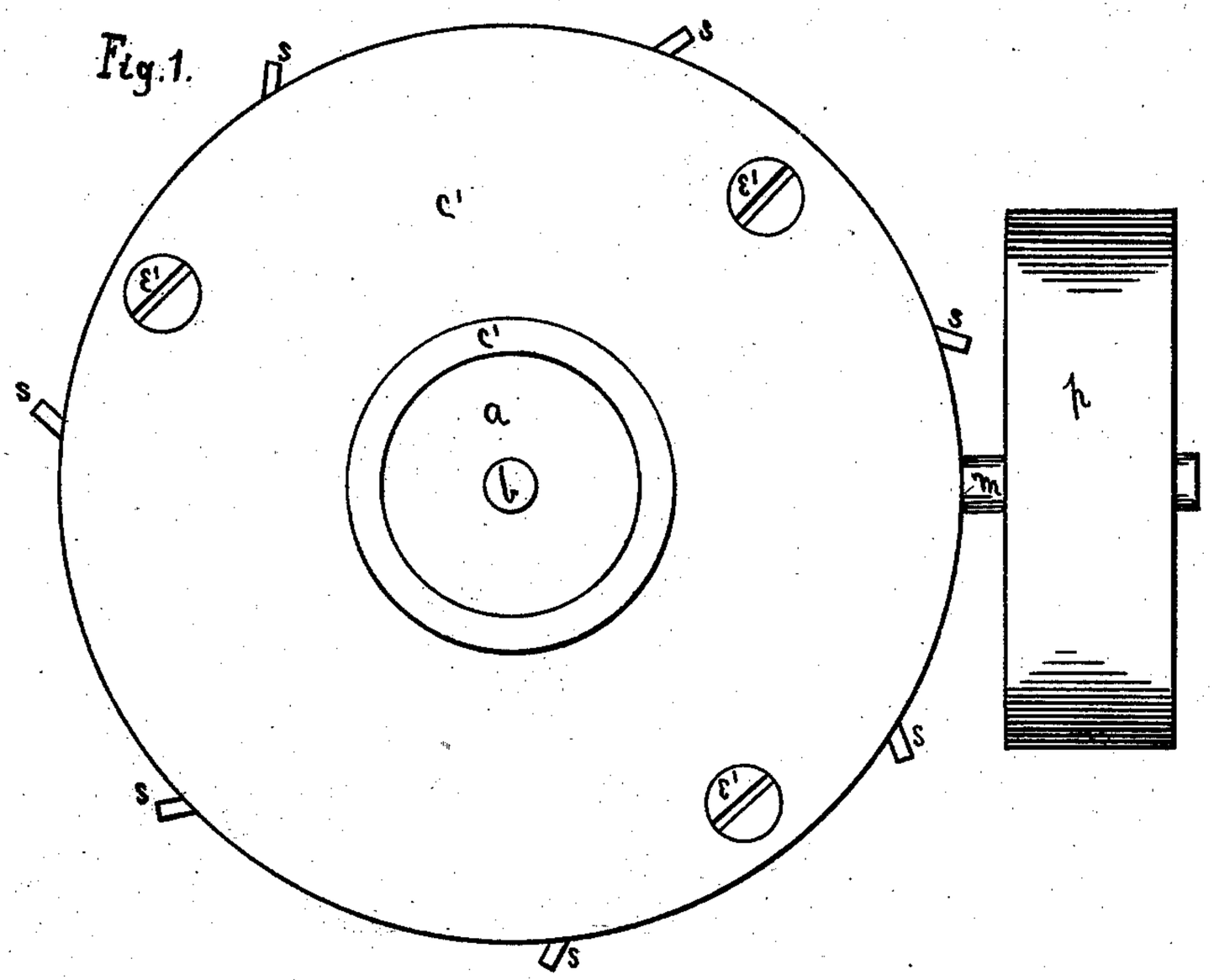
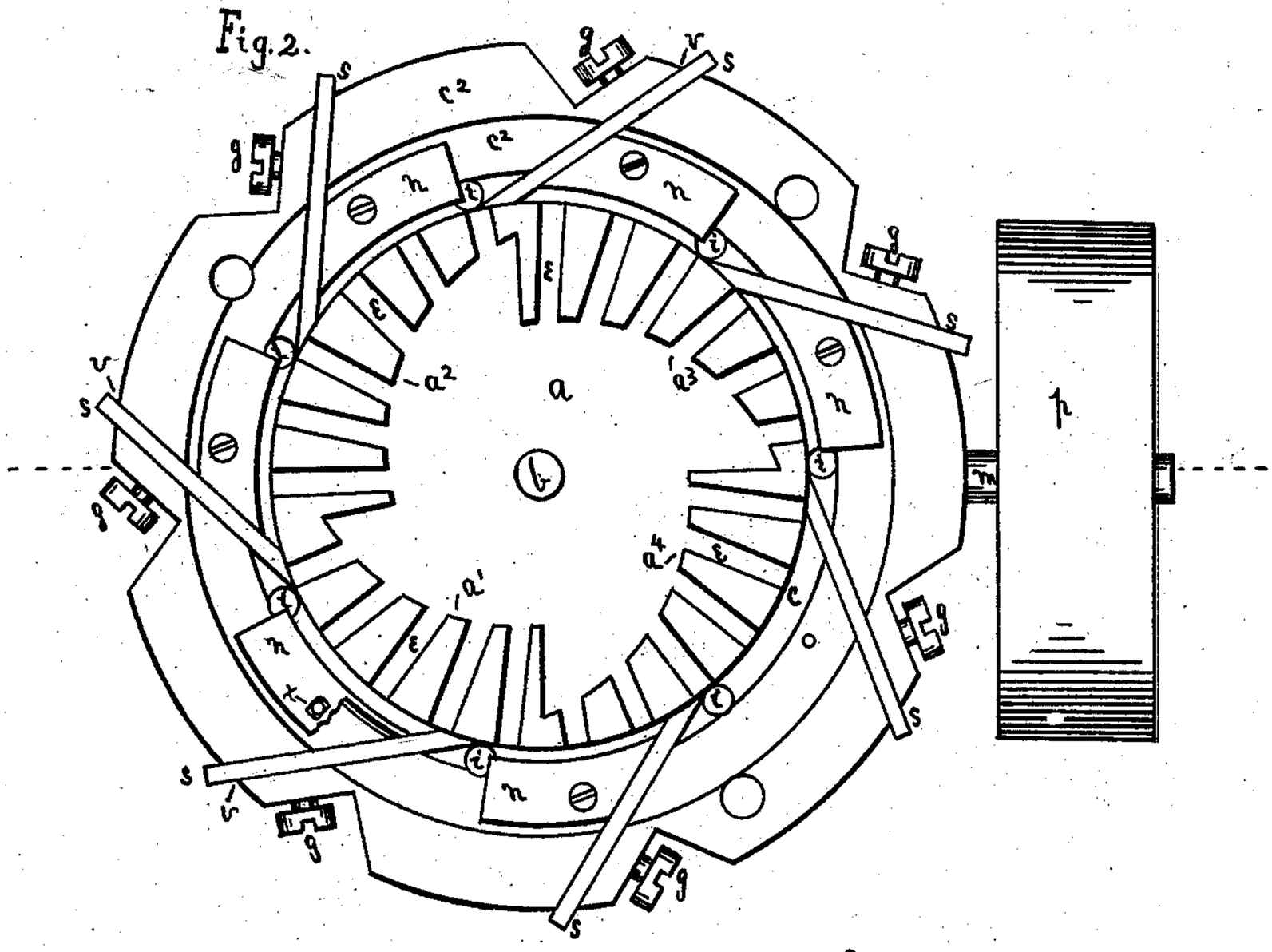


Fig. 2.



Witnesses
J. R. Holcombe.
A. D. Knapp.

Inventor
William Eberhard
by Bradford Howland
Attorney.

(No Model.)

2 Sheets—Sheet 2.

W. EBERHARD.

Oatmeal Machine.

No. 242,762. Patented June 14, 1881.

Fig. 3.

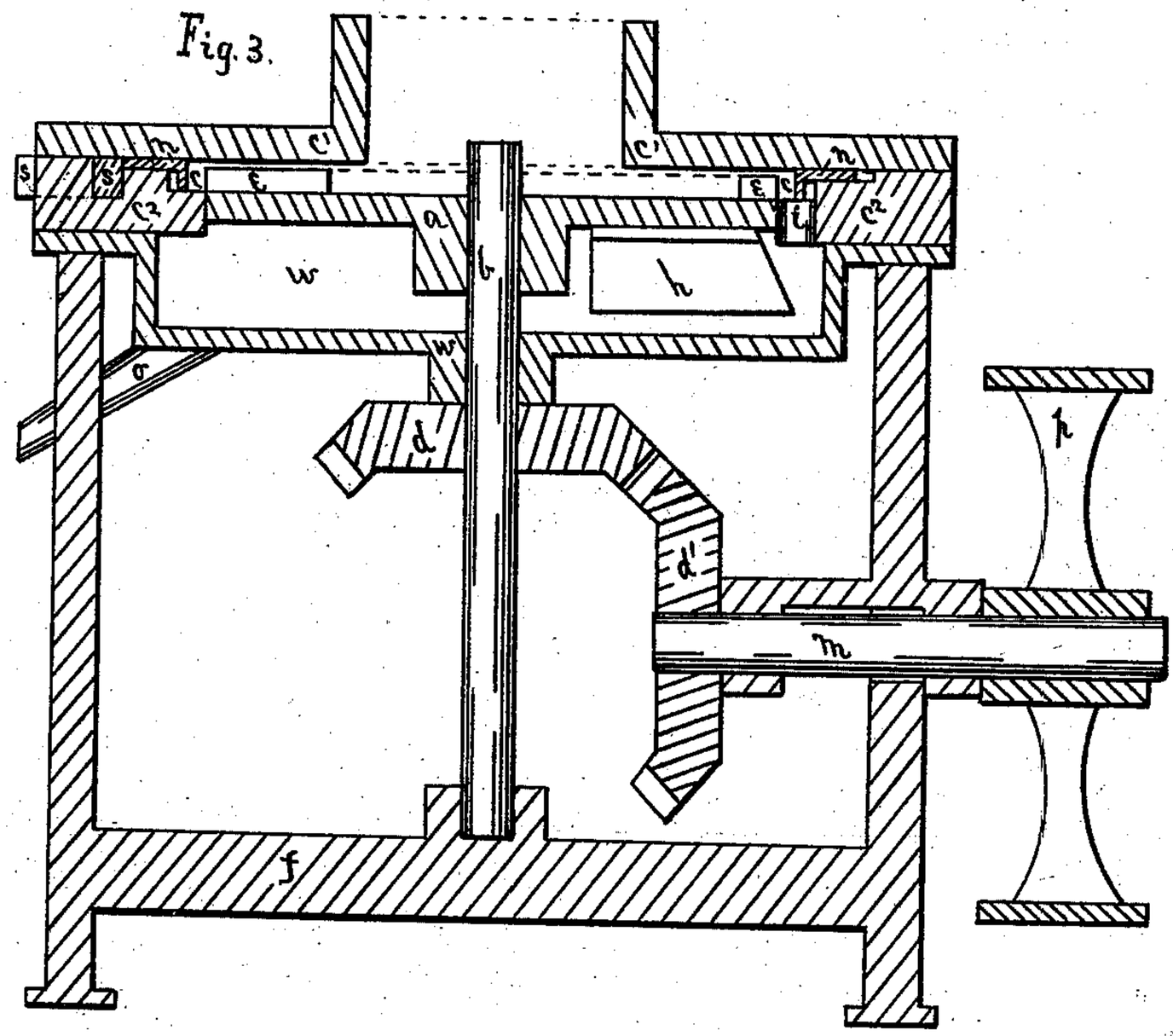


Fig. 4.

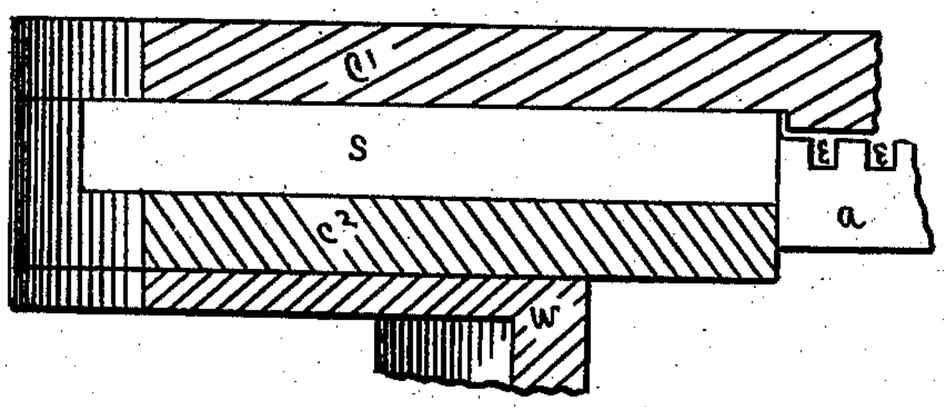
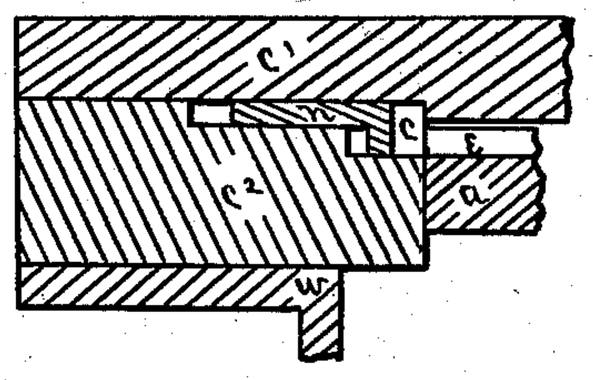


Fig. 5.



Witnesses
J. M. Holcomb
A. D. Knapp

Inventor
William Eberhard
by Bradford Howland
Attorney

UNITED STATES PATENT OFFICE.

WILLIAM EBERHARD, OF AKRON, OHIO.

OATMEAL-MACHINE.

SPECIFICATION forming part of Letters Patent No. 242,762, dated June 14, 1881.

Application filed March 30, 1881. (No model.)

To all whom it may concern:

Be it known that I, WILLIAM EBERHARD, of Akron, Summit county, Ohio, have invented a new and useful Improvement in Oatmeal-Machines, of which the following is a specification.

My invention relates to that class of oatmeal-machines in which the grain is conducted, by the centrifugal force of a rotating disk or grain-carrier, endwise through radial grooves in its upper side to cutters arranged at the circumference of the carrier.

The object of my invention is to cut the oats with chisel-shaped cutters held by set-screws in grooves tangential, or nearly so, to the circumference of the grooved carrier; to determine the length of the particles of cut grain constituting the meal by adjustable stops arranged between the cutters on the circular part of the frame or ring surrounding the grooved carrier; and dividing the radial grooves of the carrier into several series, each of which is bounded by a line at the inner ends of the grooves eccentric to the eye-circle of the carrier, for the purpose of facilitating the entrance of the grain into the grooves.

Figure 1 is a plan. Fig. 2 is a plan representing the machine without its cap or cover, and with one of the stops removed and a part of another broken away. Fig. 3 is a vertical section at the dotted line in Fig. 2. Fig. 4 is a section of a part of the machine in line with a cutter. Fig. 5 is a radial section of a part of the machine. Figs. 4 and 5 are on an enlarged scale.

The shaft *b* of the radially-grooved grain carrier or disk *a* is rotated in frame *f* by beveled wheels *d d'*, the power being applied to pulley *p* on shaft *m*. The rotating disk *a* has on its upper side four series, a' a^2 a^3 a^4, of radial grooves *e*, extending to the circumference of the disk. The inner side of each series is eccentric to the eye-circle of the disk, being divergent from the center in the direction of rotation. The inner ends of the individual grooves which form each of the groups or series a' a^2 a^3 terminate in a line eccentric to the eye-circle of the disk, which causes the kernels more readily to enter the groove. The grooves *e* are covered by cap *c'*, which has a central opening for the admission of grain to the disk. Each groove *e* is of suitable width and depth to contain oat-kernels only lengthwise and allow their passage through it in that position. Ring c^2 and meal-vessel *w* are attached by screw-bolts to frame *f*, and form a part of the frame of the machine. Cap *c'* is bolted to ring c^2 by screws *e'*, and by covering grooves *e* prevents the grain from becoming dislodged from the grooves. Ring c^2 surrounds disk *a*, and fits its circumference just below grooves *e*, to prevent the uncut grain from falling from the outer ends of grooves *e* into vessel *w*. The upper side of ring c^2 has an inner annular recess, *c*, Fig. 5, extending downward as low as the bottom of grooves *e*. Stops *n* are adjustable in recess *c* by means of a slot, *x*, Fig. 2, in the top of each stop, through which it is bolted to ring c^2. There is a stop, *n*, a slight distance in front of the edge of each cutter *s*, and extending to the back of the next cutter. It is a thin piece of metal, extending down as far as the bottoms of grooves *e*. It arrests the kernels projecting from grooves *e* until they are severed by cutters *s*.

To produce coarse meal, stop *n* should be moved out from disk *a*, and to produce fine meal it should be adjusted nearer to the disk. There is a vertical opening, *i*, immediately in front of each cutter, through ring c^2 into vessel *w*, for the discharge of the meal into the vessel.

The cutters *s* are chisel-shaped, and are tangential, or nearly so, to the circumference of disk *a*. They are adjustably retained in grooves *v* in the top of ring c^2 by set-screws *g*, the circumference of ring c^2 being notched, as shown in Fig. 2, to make it suitable for set-screws *g* to enter.

The under side of cap *c'*, beyond the circumference of disk *a*, is slightly cut away to allow the edge of the cutters *s*, Fig. 4, to extend above the tops of grooves *e*, and the cutter-grooves *v* are deeper than the bottoms of grooves *e* to allow the cutter-edges to extend below grooves *e*, and thereby the complete severance is insured of the kernels carried outward through grooves *e* by the centrifugal force of the rotating disk *a*.

The wing or scraper *h* is attached to the bot-

tom of disk *a*, and by the rotation of the disk forces the meal from vessel *w* into the discharge-spout *o*.

I claim as my invention—

A horizontally-rotating grain-carrier provided with groups or series, a' a^2 a^3, of radial feeding-grooves, the inner ends of the individual grooves which form each group or series terminating in a line eccentric to the eye-circle of the grain-carrier, in combination with cap *c'*, and with cutters *s*, and stops or gages *n*, arranged at the outer ends of the grooves, substantially as described.

WILLIAM EBERHARD.

Witnesses:
C. R. GRANT,
CHARLES HOWLAND.