2 Sheets--Sheet 1.

A. SCHACHT.

Improvement in Coffee-Crushing Machines.

No. 130,078. Patented July 30, 1872.

Fig. 1.

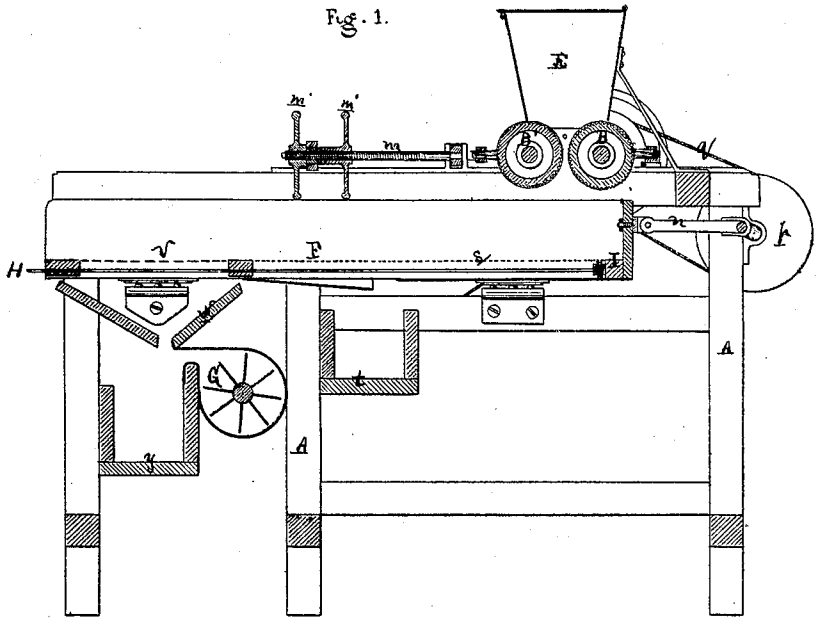
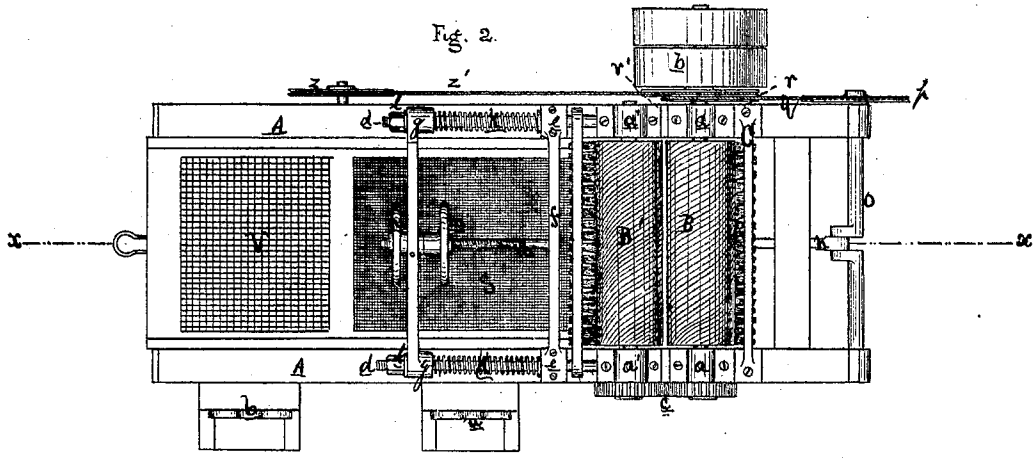


Fig. 2.



Witnesses:
N. S. Sprague
H. F. Eberts.

Inventor:
Albert Schacht
By Atty—
Thos. S. Sprague

AM. PHOTO-LITHOGRAPHIC CO. N.Y. (OSBORNE'S PROCESS.)

2 Sheets--Sheet 2.

A. SCHACHT.

Improvement in Coffee-Crushing Machines.

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Fig. 3.

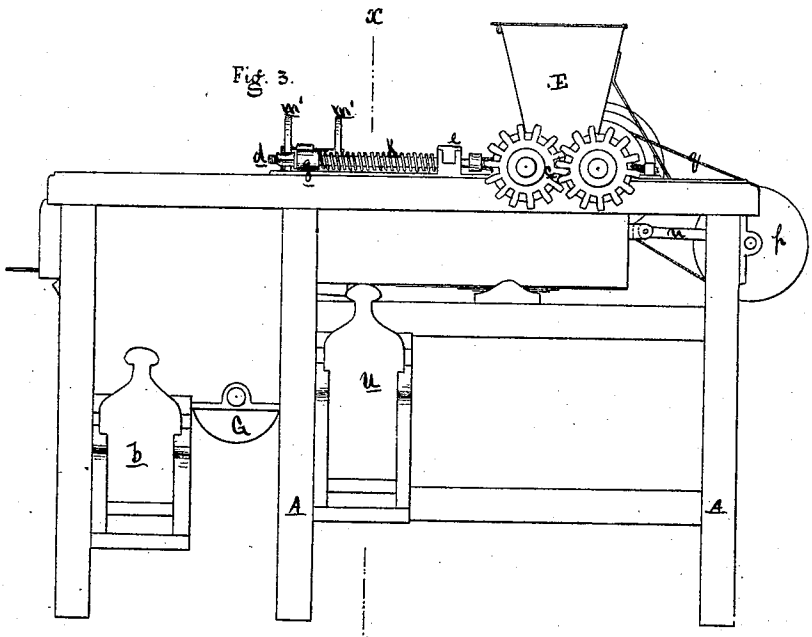
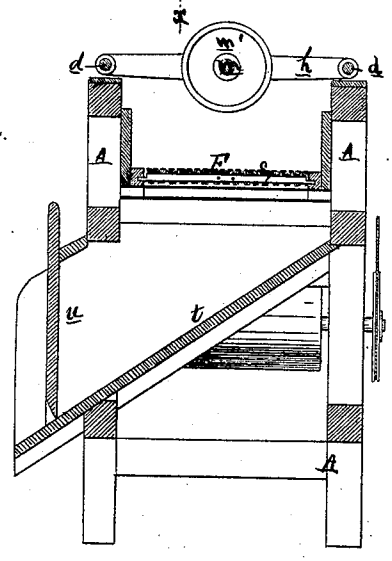


Fig. 4.



Witnesses:
H. S. Sprague
H. F. Eberts.

Inventor:
Albert Schacht
By Atty
Wm. S. Sprague

A.M. PHOTO-LITHOGRAPHIC CO. N.Y. (OSBORNE'S PROCESS)

UNITED STATES PATENT OFFICE.

ALBERT SCHACHT, OF CHICAGO, ILLINOIS.

IMPROVEMENT IN COFFEE-CRUSHING MACHINES.

Specification forming part of Letters Patent No. **130,078**, dated July 30, 1872.

To whom it may concern:

Be it known that I, ALBERT SCHACHT, of Chicago, in the county of Cook and State of Illinois, have invented a new and useful Improvement in Coffee-Crushing Machines; and I do declare that the following is a true and accurate description thereof, reference being had to the accompanying drawing and to the letters of reference marked thereon and being a part of this specification, in which—

Figure 1 is a longitudinal vertical section on the line *x x* in Fig. 2, both figures being on Sheet 1 of the drawing. Fig. 2 is a top plan. Fig. 3, Sheet 2, is an elevation; and Fig. 4, Sheet 2, is a vertical cross-section on the line *x x* in Fig. 3.

Like letters indicate like parts in each figure.

The nature of this invention relates to an improvement in the construction of machines employed for the purpose of preparing the roasted coffee-berry for use, so arranged as to crush the same and not grind it to powder, and to separate the useless particles from the useful. The invention consists in the construction and arrangement of the various parts, as more fully hereinafter described.

In the accompanying drawing, A represents a suitable frame, upon the top of which, and between its sides, are placed the spirally-grooved crushing-rollers B, running in suitable boxes *a*, and driven by means of the pulley *b* and geared wheels *c* in such a manner that said rollers B will rotate toward each other, like the crushing-rollers of a sugar-mill. So that said rollers can be adjusted to any desired distance from each other, in order to determine the coarseness of the work, the rods *d* are secured at one end to the boxes *a'*, which slide upon the top of the frame A, and in which the roller B' is journaled. These rods pass through stationary bearings *e*, which are secured to the top of the frame, and which are connected together by the cross-bar *f*. The opposite ends of these rods pass through other bearings *g*, which are also connected together by the cross-bar *h*, and between the two bearings each of the rods *d* is inclosed within the spiral springs K, and the bearings *g* are prevented from being forced off the ends of the rods by the nuts *l*. To the center of the length of the connecting-bar *f* is secured one end of the screw *m*, which is provided, each side of the connecting-bar *h*, with thumb-nuts *m'*. By the means of these devices combined together the relative distances from each other of the rollers B are determined. C and C' are bars, to which are attached the brushes D, which are designed and so placed as to constantly clean the rollers B when the latter are in operation. The bar C is rigidly attached to the frame, while the bar C' is secured at each end to the rods *d*, so that it advances and recedes with the roller which it is designed to clean. E is a hopper to receive the berry and discharge the same upon the crushing-rollers. After these rollers have performed the operation required of them, the product is discharged onto the sieve or riddle F, which has a reciprocating motion by means of the pitman *n*, crank-shaft *o*, pulley *p*, and belt *q*, from the pulley *r*. This riddle or sieve is divided into two parts, the one provided with the finer mesh *s* allowing the finer product of the crushed berry to pass through and fall upon the inclined bed *t*, where it may be discharged through the gate *u* when desired, while the coarser product of the berry is allowed to drop through the coarser mesh *v* upon a shoe, W; whence, as it is discharged onto a similar inclined bed, *y*, it is exposed to the blast of the fan G, which is driven by means of the pulley *z* and belt *z'* from the pulley *r'*. In this way the coffee is freed from all impurities, which consist mainly in a light scale contained in the center of each berry. H is a rod, to the opposite end of which is secured the brush I, the head of which has a reciprocating motion in slides (not shown) immediately underneath the sieves, and the brush is so arranged as to, when drawn backward and forward, clean the sieves, and prevent their clogging up.

The coarser parts of the crushed berry, after having been discharged through the gate *b'*, may be run through the crusher the second time, and the rollers regulated to crush it the required size.

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

In a coffee-crushing machine, the combination of the spirally-grooved rollers with the brushes, made adjustable as described, the reciprocating riddle with its divisions, the inclined board T, the chute W with the fan G, and brush H, combined and arranged as described, for the purpose set forth.

Witnesses: ALBERT SCHACHT.
WM. H. LOTZ,
EMILE WAGNER.