GRATES FOR PEANUT SHELLING MACHINES

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2 Sheets-Sheet 1

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My invention relates to improvements in grates for peanut shelling machines of the general type in which a horizontal rotor coacts with a concentric grate forming a concave to grind open the shells of peanuts, with an abrading action until the shells burst open, and liberate the kernels, for instance, as in the U. S. Patent No. 1,477,648, dated December 18, 1923.

The primary object of my invention is to provide a grate for the above purpose which is stronger than the grates of commerce and is designed to abrade faster and obviate splitting the kernels and is provided with more openings through which the kernels may fall.

Other and subordinate objects will presently appear when the following description and claim are read with reference to the accompanying drawings illustrating a preferred embodiment of my invention, and in which:

Figure 1 is a view in plan of my improved grate;

Figure 2 is a bottom plan view;

Figure 3 is an enlarged view in transverse section taken on the line 3—3 of Figure 1; and

Figure 4 is a fragmentary enlarged view in longitudinal section taken on the line 4—4 of Figure 1.

Referring to the drawings by numerals, my improved grate designated generally by the numeral 1 is cast in one piece of suitable metal and is of rectangular form with longitudinal side bars 3, transverse end bars 5 and cross-bars 7 intermediate the end bars 5. The end and cross-bars 5, 7 are spaced apart equidistantly and sufficiently for the burst apart shell fragments and the kernels of the peanuts to fall between said bars 5, 7. The end and cross-bars 5, 7 are curved longitudinally transversely of the grate 1 concentrically of the rotor, not shown, and are adapted to extend transversely of the rotor.

The end bars 5, and cross-bars 7 comprise flat tops 9 having rounded side edges 10 to prevent breaking the shells. The cross-bars 7 are formed with reduced downwardly tapered longitudinal flanges 11 below said tops 9 forming downwardly flaring openings 13 between said flanges to facilitate dropping of the shell fragments and kernels therethrough, and the end bars 5 have inner sides 15 set back and inclined downwardly to form with flanges 11 of the adjacent end bars 5 a corresponding opening 13.

The end and side bars 5, 3 are deeper than the cross-bars 7 to depend below the same to prevent scattering of the broken shells and hulls as they drop between the cross and end bars 7, 5. Of course, the end and cross-bars 5, 7 join the side bars 3 flush therewith.

Upstanding frusto-conical and relatively narrower nubs 17 are spaced longitudinally and equidistantly along the tops 9 of the end and side bars 5, 3 in the longitudinal center thereof to coact with the rotor, not shown, in abrading action against the shells.

The side bars 3 are provided with longitudinal bottom edge flanges 19 and with beveled edge half-moon openings 21 for attachment of the grate in a shelling machine and which merely is mentioned in passing since the attaching means, per se, forms no part of my invention.

As will now be seen, the end and cross-bars 5, 7 and the nubs 17 provide the maximum abrading surfaces in such grates with the maximum number of openings to facilitate shelling peanuts with a coating abrading rotor.

The foregoing will suffice to impart a clear understanding of my invention, without further explanation.

Manifestly, the invention is susceptible of modification without departing from the inventive concept and right herein reserved to such modifications as fall within the scope of the appended claim.

What I claim is:

For use with an abrading cylindrical rotor of a peanut shelling machine, a rectangular grate adapted to form part of a concave, said grate comprising side and end bars and cross-bars extending between said side bars parallel with said end bars, said end and cross-bars being curved and adapted to be disposed concentrically of said concave, said end and cross-bars being spaced equidistantly apart to provide discharge spaces therebetween, said end and cross-bars for abrading purposes and to obviate cutting having flat tops with upstanding frusto-conical smooth nubs spaced along the same and longitudinal edges of rounded cross section extending from one side bar to the other.

References Cited in the file of this patent

UNITED STATES PATENTS

962,192 Blix ------------------ June 21, 1910

1,477,648 Huston ---------------- Dec. 18, 1923

2,004,573 Galley et al. ---------- June 11, 1935