

No. 767,831.

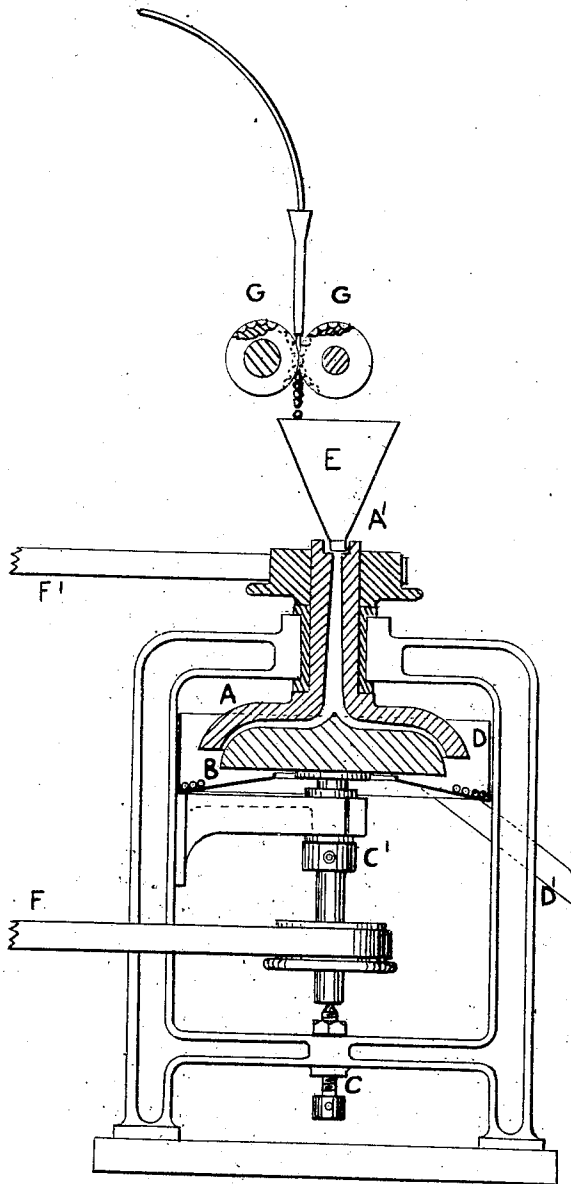
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W. H. PEARSON & W. PETERS.

SHOT MAKING MACHINERY.

APPLICATION FILED AUG. 25, 1903.

NO MODEL.



Witnesses,
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UNITED STATES PATENT OFFICE.

WALTER HENRY PEARSON AND WILLIAM PETERS, OF DUNEDIN, NEW ZEALAND.

SHOT-MAKING MACHINERY.

SPECIFICATION forming part of Letters Patent No. 767,831, dated August 16, 1904.

Application filed August 25, 1903. Serial No. 170,747. (No model.)

To all whom it may concern:

Be it known that we, WALTER HENRY PEARSON, gentleman, and WILLIAM PETERS, store manager, both of 49 Moray Place, in the city of Dunedin, in the British Colony of New Zealand, and both subjects of the King of Great Britain, have invented certain new and useful Improved Shot-Making Machinery, of which the following is a specification.

The object of this machinery is to produce shot of the various sizes needed from cold sheet or scrap lead that is cut into cubes about the diameter of the required shot. These cubes are formed by passing sheet-lead through cutting-rollers into strips the width and thickness of the required shot and either cross-cutting these strips with the same or a duplicate set of cutting-rolls or else passing the strips through rolls which have semiglobular recesses coinciding in each, which form blanks resembling partly-rounded cubes. The cubes or blanks are then fed to the rolling-machine, which consists of two disks preferably revolving in opposite directions. These are adjusted apart at the center where the blanks are fed to allow them to get between the disks, while they become closer toward the rim or delivery part, so that the blanks are squeezed and rolled to spherical shot, which can be rumbled, if desired. The center parts may be left roughened or nicked to grip the blanks; but the rest of the surfaces are polished to make the shot smooth. This process hardens the shot considerably, producing very hard and even shot.

In the drawing is shown a sectional elevation of a machine constructed in accordance with this invention.

A is a disk somewhat and preferably saucer-shaped, though it is very obvious that the exact shape could be indefinitely varied for obtaining the same result that of grinding and rolling the cubes or shot blanks between it and the disk B. These disks revolve in opposite directions, though a similar but less perfect result would occur if one revolved only or if both revolved in the same direction, but at

varying speeds. The blanks are fed at A', which enlarges to prevent choking. These fall on B and are at once centrifugally driven outward and gripped between the disks, which are slightly roughened where the grip begins, but polished toward the delivery or rim. These disks are adjustable at C by any such device as the center C and collar C', so that different-sized shot can be made with one set of disks. The rolled shot fall into the circular pan D, which may have several outlets D', or the shot may be brushed to D' by a brush fixed to B, but not shown.

E is the feeding-funnel, and, if desired, a fine rod may extend from its lower edge through the hollow of A' to further prevent the blanks sticking, though this is not usually needed.

F and F' are the driving-belts.

G represents rollers having semiglobular recesses round the rim in rows so closely together that the edge between each recess is sharp. This squeezes and cuts off blanks from strips or wire which are fed by a guiding-tube to the rolls. Though one row and tube is shown, obviously more would be placed on the one pair of spindles.

Having now described our invention, which may be made of any convenient size and of any suitable materials, what we claim, and desire a patent of the United States of America for, is—

In a machine of the class described, a pair of shot-rolling disks arranged one above the other, the upper disk having a central tubular extension rising therefrom through which the shot is introduced, and a driving member for rotating the upper disk, carried by said tubular extension.

In testimony whereof we have hereunto affixed our names and set our hands in the presence of two subscribing witnesses.

WALTER HENRY PEARSON.
WILLIAM PETERS.

Witnesses:

HENTON MACAULAY DAVEY,
ELIZABETH ANN DAVEY.