(12) **United States Patent**
Honey

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(54) **SHOT, SCREENING TABLE**

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John W. Honey.

Letters Patent.

The Schedule referred to in these Letters Patent and making part of the same containing a description in the words of the said John W. Honey himself of his improvement in screening Tables for discriminating, detecting and separating Rejected from imperfect Shot.

These Tables may consist of any number not less than two. may be made of wood well smooth surfaced and having perpendicular sides or casings, fastened together, to the edges lengthwise, and sufficiently elevated to prevent the Shot from rebounding over: They may be of any length, though exceeding twelve feet is deemed not necessary, the breadth should be in proportion to the quantity of Shot it is intended to screen per hour. that is to say if intended to screen or separate five hundred pounds per hour. the first table should be at least eighteen inches in breadth. each succeeding table increasing so as to admit the end of the Table above it. together with its sliding inclined plane between the sides or casings. The ends of the tables (except the upper end of the first one) are left open to admit a free passage for the Shot from one table to another unless the tables are placed in reversed ends in which case the upper ends of the reversed tables are closed up sufficiently high to prevent the Shot from rebounding over. They are fixed in an oblong square frame of wood and form successive inclined planes. The elevated end of the second table and of each succeeding one is placed about three inches below the lowest end of the table above it and removed forward so as to leave an aperture of about twelve inches between the ends of the tables. The whole breadth thereof for the imperfect Shot to drop through. immediately under the aperture is placed a receiving box furnished with a bottom inclined from one end to the other, or from an elevated centre towards both ends. The imperfect Shot falling into that receiver glides off into a trough or troughs that conducts it to an open box placed to receive it at the bottom of the frame. At the lower end of each table is a sliding inclined plane sufficiently wide to admit of its nearly closing up the aperture between the ends of the tables and so that it may work upon the surface at the elevated end of the next table which sliding inclined plane by means of its casings or sides and light strips of frame work. closing the tables sufficiently close to render them stationary in the required position. but so as to admit of their being moved backwards and forwards by a small force of the hands determines the aperture through which the imperfect Shot drops

between the ends of the tables the whole breadth thereof according to the nature of the shot as to size and imperfections &c. at one end of the frame and immediately above the elevation end of the first table is a hopper rapidly secured into which the shot is thrown from the polishing barrel and passes on to two oblong oscillating pans. The first fastened by a hinge or joint to the hopper directly under the aperture on the lowest extremity of the hopper. Both of which pans are also inclined planes in reverse order and are connected together by means of a joint hinge or swivel at one end so that the pans is immediately above the other. The pan nearest the hopper having an aperture not exceeding one inch in diameter near the end where it is connected with the other pan. Through which the shot falls into the lower pan and from it glides to the table. The use of these pans is to regulate and guide the precipitation of the shot from the hopper to the first table which is effected by increasing or decreasing the elevation of the pans by means of a cord attached to one end, and passing over one end of the frame. The shot being admitted from the hopper to the tables as before mentioned glide and roll down the first table to the end thereof whereon a portion of the most imperfect shot is detected and fall into the first receiver through the aperture between the end of the first table and the sliding inclined plane. The perfect and remaining less imperfect shot by reason of their greater velocity having cleared the aperture are conducted by the sliding inclined plane to the next table, and continue their course from the first to the last table undergoing at the end of each in like manner further separation from the remaining imperfections, until at the end of the last table the entirely perfect shot precipitates itself into a receiving box placed in a slanting position with the end of the table. A portion of perfect and a portion of imperfect shot mingled together (the former having imparted a part of its velocity to the latter by their coming in contact) and the remaining part of the imperfect shot fall respectively upon two sliding inclined planes placed in succession to the inclination of the table and between the end of the table and the box which receives the perfect shot, and so framed that the elevated edge of the first is about two and a half inches below the end of the table and the elevated edge of the second about the same distance below that of the first, and so as to be moveable closer or more apart from each other and from the ends of the table that the apertures between each of the whole breadth of the table may be determined according to the size of the largest quantity of shot about to be screened, and by them are conducted into their respective receivers placed under the tables. Thus the perfect

shot. The portions of perfect and imperfect shot mingled together and the entirely imperfect shot by their different velocities are entirely distributed and separated. For the saving of room the tables may be placed in recessed order with a table or tables above and below in which case the elevated ends of the ground tables must extend sufficiently beyond and below the depressed end of the table above it, so as to admit the base or receiver with the inclined bottom (intended to carry the imperfect shot immediately under the portion between the end of the table and its sliding inclined plane, and so as to leave sufficient room between the received and the under face of the table below it and between the head or elevated end of that table and the depressed edge of the sliding inclined plane for the shot which has cleared the respective lines to find a free passage; the inclination of the planes of each table is decreased from the first (which is elevated about two and one fourth inches to each foot in length of the table from a horizontal line) to the last each table after the first decreasing according to the number of tables in about the proportion of three fourths of an inch to each foot, until the inclination of the last is reduced to not less than half an inch per foot. the others in correlative proportions. The whole machine is concealed and depends upon the principles of gravitation acting upon an inclined plane, and upon the difference of velocity between gravitating bodies of a greater or less globular form. The utility of the invention consists in its saving power the shot carrying itself from the hopper to a perfect disengaged state from all imperfections without manual assistance except that which is required to remove the portions of perfect and imperfect shot mingled together from its receiver at the foot of the tables, to the hopper whence it is again thrown in with the other shot from the polishing barrel. The whole machine is of wood except the necessary nails and screws to keep all together and the regulating screws.

Witnesses
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NO PRINTED SPECIFICATION AVAILABLE

4024X

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Shot Screen.

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