F. WARD.

RIVET SORTING TABLE.

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1,333,233. Patented Mar. 9, 1920.

Fig. 1

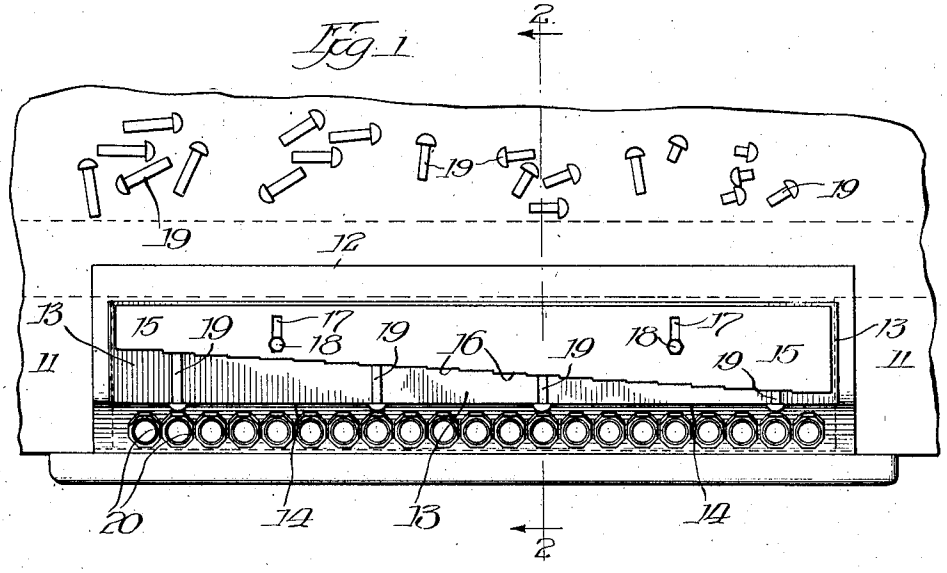
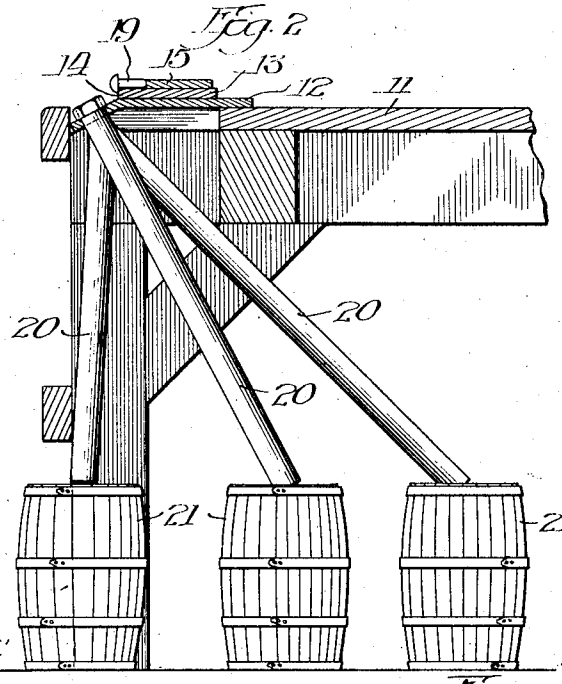


Fig. 2



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RIVET-SORTING TABLE.

1,333,233. Specification of Letters Patent. Patented Mar. 9, 1920.

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To all whom it may concern:

Be it known that I, FRANK WARD, a citizen of the United States, residing at Chicago, in the county of Cook and State of Illinois, have invented certain new and useful Improvements in Rivet-Sorting Tables, of which the following is a specification.

The invention has for its object the provision of a simple means for rapidly and accurately sorting rivets, bolts and like articles having a head, the term rivet being used herein in a generic sense.

In the accompanying drawing and in the following detailed description based thereon a preferred embodiment of the invention is set forth for purposes of illustration. As, however, the invention is susceptible of embodiment in other constructional forms the drawing and description are to be taken in an illustrative and not in an unnecessarily limiting sense.

In the drawing—

Figure 1 is a fragmentary top plan view of a table equipped with the sorting device: and

Fig. 2 is a vertical transverse section on the line 2—2 of Fig. 1.

As illustrated, a table, bench or other suitable support is indicated by the numeral 11. Upon the top of the table is located a supporting plate 12 and upon the upper face of such plate is a guide plate 13 having a rectilinear front edge presenting a shoulder 14, while upon the guide plate 13 is superposed a gage plate 15 which latter has a front edge arranged at a progressively diminishing distance from the front edge of the guide plate by being arranged at an inclination thereto or preferably as shown being provided with steps 16 each parallel to the shoulder 14 and at slightly different distances therefrom. Provision is made for the relative adjustment of the front edge of the guide plate and gage plate toward and from each other by means of slots 17 in the gage plate within which slide studs 18 carried by the guide plate. Obviously either the gage plate or the guide plate may be made movable.

It will be noted that as shown the gage plate 15 has a thickness conforming substantially to the diameter of the rivets indicated at 19 although it may be of a thickness greater or less than the diameter of said rivets, it only being necessary that it shall have a thickness sufficient to form an abutment against which the end of the rivet may impinge while the head of the rivet overhangs the guide plate 13 and the under portion of the head impinges against the shoulder 14.

Immediately in front of the shoulder 14 are arranged the open ends of a series of pipes 20 corresponding in number to the steps 16 of the gage plate and leading to a corresponding number of receptacles 21 for the sorted rivets, which receptacles are shown as located beneath the table.

The workman taking a rivet from the pile on the table of various sizes or lengths, places the same on the guide plate 12 at the left hand end with the underside of the head against the shoulder 14 and moves the same quickly to the right until the end of the rivet strikes against one of the offsets separating the different steps which indicates that the rivet is of a length corresponding to that represented by the distance separating that stepped portion of the gage plate from the shoulder of the guide plate. The rivet is then moved forwardly into the open end of the pipe corresponding to that step and is by said pipe conveyed to its proper receptacle. Sorting the rivets in this manner does not require any visual inspection of the same but is done mechanically and expeditiously as will be readily understood.

I claim:

1. A device for sorting rivets as to length comprising a guide member presenting a longitudinally extending shoulder, and a gage member disposed adjacent but in a higher plane than the shoulder and presenting a face opposed to and arranged at a progressively diminishing distance from the shoulder as viewed longitudinally thereof, said guide member affording rivet supporting means bridging the space between the guide and gage members.

2. A device for sorting rivets as to length comprising a guide member presenting a longitudinally extending shoulder, and a gage member adjustably associated with the guide member and presenting a face opposed to and arranged at a progressively diminishing distance from the shoulder as viewed longitudinally thereof, adjustable means to fix the position of the edges of the gage and guide members relative to each other, said

guide member affording rivet supporting means bridging the space between the guide and gage members.

3. A device for sorting rivets as to length comprising a guide member presenting a longitudinally extending shoulder, and a gage member adjustably associated therewith in a higher horizontal plane than the shoulder and parallel thereto and presenting a stepped face opposed to the shoulder, the steps of the gage arranged at progressively diminishing distances from the shoulder as viewed longitudinally thereof, said guide member affording rivet supporting means bridging the space between the guide and gage members.

4. A device for sorting rivets as to length comprising a guide member presenting a longitudinally extending shoulder having a vertical face, and a gage member adjustably associated therewith in a higher horizontal plane than the shoulder and presenting a vertical stepped face opposed to the shoulder, the steps of the gage arranged at progressively diminishing distances from the vertical plane of the shoulder as viewed longitudinally thereof, and adjustable means to fix the positions of the steps and shoulder relative to each other, said guide member affording rivet supporting means bridging the space between the guide and gage members.

5. A device for sorting rivets as to length comprising a guide plate presenting a longitudinally extending shoulder having a vertical face, and a gage plate disposed upon the guide plate and presenting a stepped face opposed to the shoulder in a higher horizontal plane, the steps of the gage plate arranged at a progressively diminishing distance from the vertical plane of the shoulder as viewed longitudinally thereof, said guide member affording rivet supporting means bridging the space between the guide and gage members.

6. A device for sorting rivets as to length comprising a table, a guide member presenting a longitudinally extending shoulder having a substantially vertical face, and a gage member associated with the guide member and presenting a stepped face opposed to the shoulder, the steps of the gage arranged at progressively diminishing distances from the vertical plane of the shoulder as viewed longitudinally thereof, a plurality of receptacles corresponding in number to the steps of the gage face, and rivet conveyers leading thereto from the table at spaced intervals longitudinally of the gage, said guide member affording rivet supporting means bridging the space between the guide and gage members.

7. A device for sorting rivets as to length comprising a table, a guide member thereon presenting a longitudinally extending shoulder, a gage member disposed in a higher plane than the guide member and parallel thereto and presenting a face opposed to the shoulder and arranged at progressively diminishing distances from the shoulder as viewed longitudinally thereof, a plurality of receptacles, and rivet conveyers leading thereto from the table at spaced intervals longitudinally of the gage.

8. A device for sorting rivets as to length comprising a table, a guide member thereon presenting a longitudinally extending vertically faced shoulder, a gage member disposed in a higher horizontal plane than the shoulder and parallel thereto and presenting a stepped face opposed to the shoulder, the steps thereof arranged at progressively diminishing distances from the vertical plane of the shoulder as viewed longitudinally thereof, a plurality of receptacles corresponding in number to the steps of the gage, and rivet conveyers leading thereto from the table at points adjacent each of the gage steps.

9. A device for sorting rivets as to length comprising a table, a guide plate thereon presenting a longitudinally extending vertically faced shoulder, and a gage plate disposed upon the guide plate and parallel thereto and presenting a vertical stepped face opposed to the shoulder, the steps thereon arranged at progressively diminishing distances from the vertical plane of the shoulder as viewed longitudinally thereof, a plurality of receptacles corresponding in number to the steps of the gage, and rivet conveying pipes leading thereto from the table at points adjacent each of the gage steps.

10. A device for sorting rivets as to length comprising a guide plate and a gage plate having their upper faces arranged in different but substantially parallel planes, the two plates having their corresponding edge faces progressively diverging as viewed longitudinally thereof whereby the edges face in the same direction and constitute gaging abutments for the extreme ends and the interior faces of rivet heads.

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Witnesses:
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