

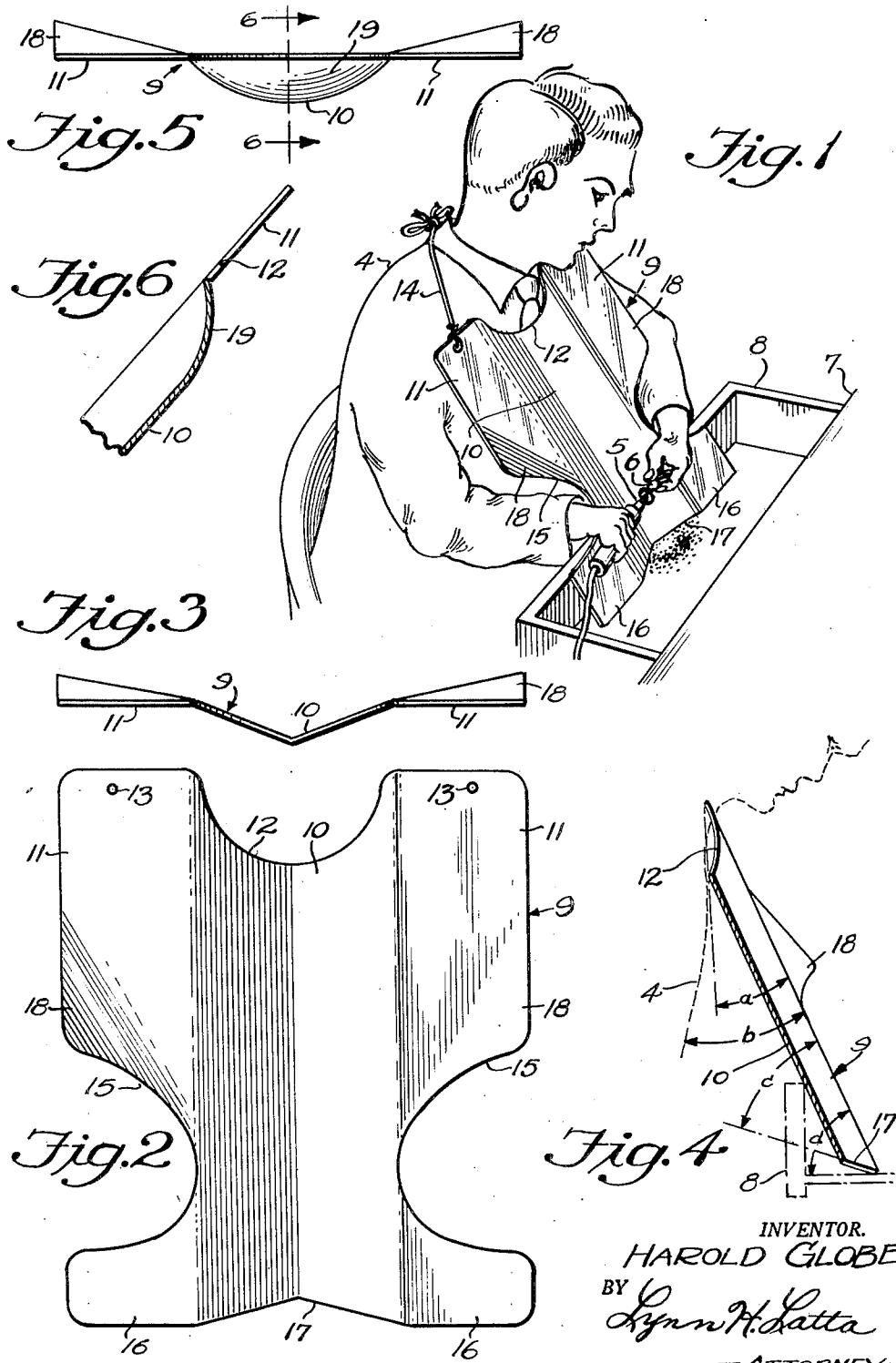
May 12, 1953

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2,637,852

GRINDING CATCHER AND SHIELD

Filed April 23, 1951



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UNITED STATES PATENT OFFICE

2,637,852

GRINDINGS CATCHER AND SHIELD

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Application April 23, 1951, Serial No. 222,474

6 Claims. (Cl. 2-51)

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This invention relates to a shield for catching particles of precious metal ground from dental castings, jewelry articles etc. The general object of the invention is to provide a device which may be worn by a dental technician or a manufacturing jeweler and, when so worn, will function to catch the grindings of precious metal and direct them into a suitable receptacle.

It is common practice among dental technicians to grind the gold castings for inlays, bridges etc., over an open drawer of a work table. However, a large percentage of the grindings are thrown clear of the drawer and are not caught. They reach the floor, are swept out by the janitor, and are never recovered.

A basic object of the present invention is to provide a device which may be worn in a position where it will catch the grindings and direct them into a receptacle. A further object is to provide such a device which is of relatively simple and inexpensive construction.

Another object is to provide such a device which is not objectionably uncomfortable when worn by an operator.

Other objects will become apparent in the ensuing specifications and appended drawings in which:

Fig. 1 is a perspective view of an operator wearing one of my improved shields and in the act of grinding a casting;

Fig. 2 is a front view of the same;

Fig. 3 is an upper end view of the same;

Fig. 4 is a central longitudinal sectional view of the shield, shown in the operative position;

Fig. 5 is an upper end view of a modified form of the invention; and

Fig. 6 is a detail sectional view of the same taken on line 6-6 of Fig. 5.

Referring now to the drawings in detail, I have shown in Fig. 1 a dental technician, indicated at 4, using a grinding tool 5 for grinding a tooth inlay 6. The workman's work table is indicated at 7, and a drawer thereof at 8.

My invention provides a grindings catching shield which, in general, is in the form of a bib. The shield is indicated generally at 9. Shield 9 is constructed from a single sheet of metal, preferably a light metal such as aluminum, or a sheet of plastic or other suitable sheet material. It embodies a central trough or channel 10 flanked by a pair of flat wings 11 lying substantially in a common plane. At the top it has an arcuate cut out notch 12 to accommodate it to the workman's neck, so that the upper ends of wings 11 may rest against the shoulders, with

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the neck partially received in notch 12. The angle *a* (Fig. 4) defined between the common plane of wings 11 and a plane intersecting the bottom and upper corners of notch 12, is smaller than the angle, indicated at *b* in Fig. 4, subtended between the plane of said wings 11 and the chest of the operator 4.

The upper corner portions of the wings may have apertures 13 for securing tie strings 14 to the shield. Tie strings 14 may be tied together behind the back of the neck to support the shield in the position shown in Fig. 1.

Below the wings 11, near the lower end of the catcher, are a pair of laterally opposed arcuate cutout notches 15 which accommodate the forearms of the operator, so that he may reach them around the sides of the shield and in front of the same and may bring them together as shown in Fig. 1 for operating on a piece of work. The notches 15 are of sufficient width, longitudinally of the shield, to freely receive the workman's forearms in the operating positions thereof, shown in Fig. 1. The lower sides of notches 15 are defined by a pair of feet 16 which extend laterally from the lower extremity of trough portion 10 of the shield.

The shield is of a proper length to reach from just below the neck of the operator to the bottom of a drawer of a work table of normal height, so that its lower end may be extended into the drawer 8, partially opened, with the feet 16 resting on the bottom of the drawer. With the feet 16 resting on the bottom of an average work table drawer (e. g. of 3" depth) the upper edges of the feet 16 will project just slightly above the upper side of the drawer-front, so that the workman may rest his forearms on the feet 16 and thereby steady the shield. This method of maintaining the shield in a fixed position while he works, will normally be employed by the workman, and accordingly, the use of tie strings 14 is optional.

The lower end of the shield is provided with a notch 17 in the trough portion 10 thereof, which is of sufficient height so that the feet 16 of wings 11 may rest in firm contact with the bottom of drawer 8, with the common plane of the lower edges of trough 10 and the common plane of wings 11 and feet 16 subtending an angle, indicated at *c*, which is no greater than (and preferably smaller than) the angle *d* subtended between said last mentioned plane and the bottom of the drawer 8 in the normal operating position of the shield shown in Fig. 4.

The lower outer corner portions of wings 11,

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defining the upper sides of notches 15, are bent upwardly to provide downwardly and inwardly inclined flanges 18 for guiding the grindings inwardly from wings 11 into trough 10.

The form of the invention shown in Figs. 5 and 6 is the same as that described above, with the exception that the upper end of trough 10 is curved upwardly toward the plane of wings 11, as indicated at 19, in order to further relieve the space beneath the upper portion of the shield, for accommodating it to the chest of the workman. Also the trough 10 is of arcuate cross section instead of V-shaped cross section as in Figs. 1-4. These modifications are disclosed merely by way of example of variations that may be made without departing from the essential characteristics of the invention.

It will now be apparent that the trough 10 will catch the majority of the grindings and direct them into the drawer. Any grindings missing the trough 10 will impinge against the lateral wings 11 and be guided by flanges 18 into trough 10 and thence into the drawer 3.

The value of the invention will be quite apparent. The grindings from gold and other precious metals, lost in the average dental technician's laboratories, constitute a loss of many dollars per month, which the invention recovers.

I claim:

1. A shield for use by dental technicians, manufacturing jewelers and the like in catching particles ground from a precious metal casting, comprising a sheet comprising a central trough portion and symmetrical side portions disposed in a common plane forwardly of said trough portion, said trough portion constituting substantially half the width of the sheet and said side portions each constituting substantially one quarter the width of the sheet, said sheet having a pair of lateral notches each having a depth substantially coextensive with the width of a respective side portion, said lateral notches being

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centered on a transverse axis located roughly one quarter of the height of the shield upwardly from the lower edge thereof, whereby each side portion is divided into a relatively long upper portion constituting a wing and a relatively short lower portion constituting a foot, said shield having at its upper end a rounded central notch to receive the neck of a workman and being of a width between said lateral notches just narrow enough to allow the arms of the workman to be extended around the sides of the shield and the hands brought together for executing the grinding operation directly in front of the shield.

2. A shield as defined in claim 1, wherein said central notch is substantially coextensive with said trough portion in width.

3. A shield as defined in claim 2, including a triangular notch in the lower end of said shield, substantially coextensive with said trough portion, in width.

4. A shield as defined in claim 3, wherein said wings have forwardly bent lower corner portions, constituting deflectors that are inclined downwardly and inwardly.

5. A shield as defined in claim 1, wherein said wings have forwardly bent lower corner portions, constituting deflectors that are inclined downwardly and inwardly.

6. A shield as defined in claim 1, wherein said trough portion is V-shaped in cross section.

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References Cited in the file of this patent

UNITED STATES PATENTS

Number	Name	Date
636,462	Small	Nov. 7, 1899
890,005	Wright	June 9, 1908
2,569,915	Arsenault	Oct. 2, 1951

FOREIGN PATENTS

Number	Country	Date
206,719	Great Britain	Nov. 15, 1923