

A. WENDT.  
 FLASK FOR USE IN CASTING FINGER RINGS AND THE LIKE.  
 APPLICATION FILED AUG. 6, 1919.

1,358,905.

Patented Nov. 16, 1920.  
 2 SHEETS—SHEET 1.

Fig. 1.

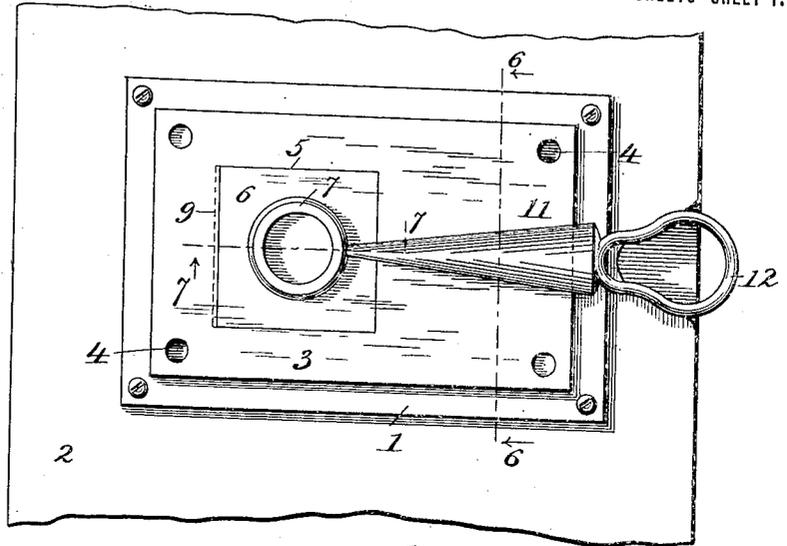
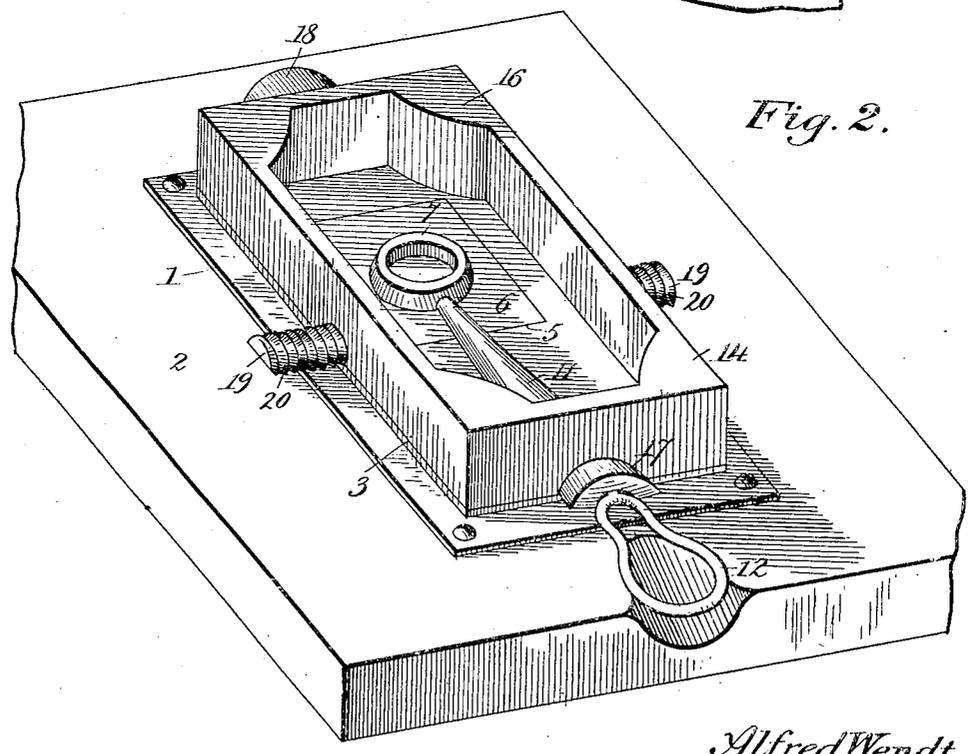


Fig. 2.



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2 SHEETS—SHEET 2.

Fig. 3.

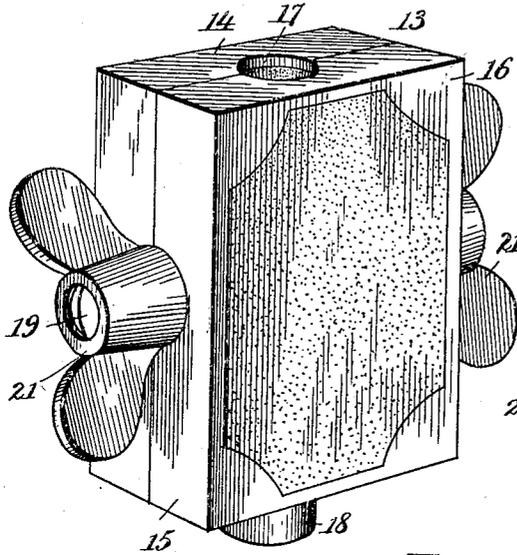


Fig. 4.

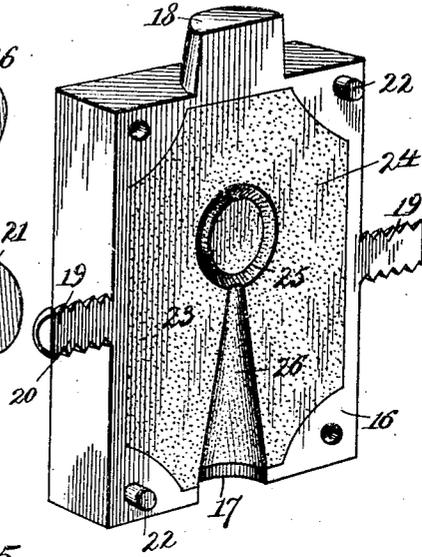


Fig. 5.

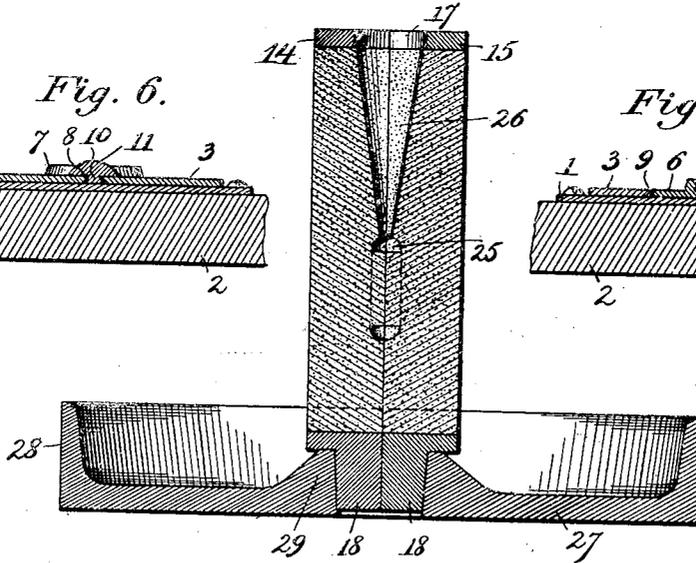


Fig. 6.

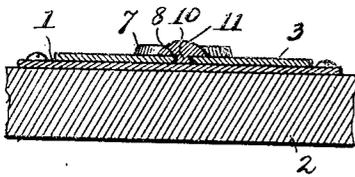
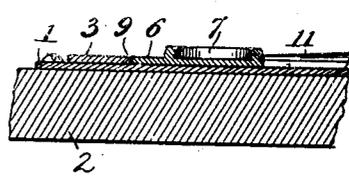


Fig. 7.



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# UNITED STATES PATENT OFFICE.

ALFRED WENDT, OF FRESNO, CALIFORNIA.

FLASK FOR USE IN CASTING FINGER-RINGS AND THE LIKE.

1,358,905.

Specification of Letters Patent. Patented Nov. 16, 1920.

Original application filed October 1, 1918, Serial No. 256,402. Divided and this application filed August 6, 1919. Serial No. 315,676.

To all whom it may concern:

Be it known that I, ALFRED WENDT, a citizen of Germany, residing at Fresno, in the county of Fresno and State of California, have invented certain new and useful Improvements in Flasks for Use in Casting Finger-Rings and the like, of which the following is a specification.

This invention has reference to flasks particularly intended for casting finger rings and parts pertaining thereto.

In accordance with the invention, the flask is a two-part structure, in such respect resembling flasks as ordinarily constructed. The flask is designed particularly for use by jewelers for the small scale production of finger rings, permitting the jeweler to supply his trade with finger rings without the necessity of carrying a large stock of finger rings already made. The construction of the flask is such that the mold may be readily produced and the casting made, while the apparatus required comprises a flask in which the mold may be made, and a minimum supply of patterns, which latter each represent but half the completed finger ring and only differ from each other in the matter of contour of the ring, leaving the different sizes to be produced by a ring stretcher.

The invention will be best understood from a consideration of the following detailed description taken in connection with the accompanying drawings forming part of this specification, with the understanding, however, that the invention is not confined to any strict conformity with the showing of the drawings, but may be changed and modified so long as such changes and modifications mark no material departure from the salient features of the invention as expressed in the appended claims.

In the drawings:—

Figure 1 is a plan view of the pattern supporting plate, carrier, pattern plate and gate pattern all associated and ready to receive a half flask.

Fig. 2 is a perspective view of the structure shown in Fig. 1 with one-half of the flask applied.

Fig. 3 is a perspective view of the flask complete ready for the casting procedure.

Fig. 4 is a perspective view of the half flask shown in Fig. 2 after being filled with sand and removed from the pattern.

Fig. 5 is a vertical section through the flask of Fig. 3 from side to side thereof and showing a drip vessel carrying the flask.

Fig. 6 is a section on the line 6—6 of Fig. 1.

Fig. 7 is a section on the line 7—7 of Fig. 1.

This application is a division of my application for a casting device for making band and other rings and parts thereof, filed October 1, 1918, Serial No. 256,402.

In Figs. 1, 2, 6 and 7 of the drawings, there is shown a plate 1 fast to a suitable support 2, this plate being usually, though not necessarily, of rectangular shape and may be flat and quite thin. Carried by the plate 1 is another plate 3 provided near the corners with sockets 4. The plate 3 has a recess 5 which may be of substantially square shape and is designed to receive a pattern 6 upon one face of which there is produced a pattern 7 of a ring or whatever ring attachment or the like is to be produced. The pattern 7 conforms in size to about one-half of the axial length of a ring so that two such patterns would represent a ring of full length. The patterns are all alike in internal diameter but may vary in external contour, since different sizes of rings may be produced, after the casting operation is completed and the cast ring is otherwise finished, by employing a ring stretcher.

The plate 3 is provided with a dovetail slot 8 extending from the recess 5 to the corresponding end of the plate 3, while the plate 6 is provided with a continuation of the same dovetail slot up to the ring pattern 7. That edge of the plate 6 remote from the dovetail slot is beveled, as indicated at 9, and the recess 5 is undercut to receive the bevel 9. Fitted to the dovetail slots in the plates 3 and 5, which slots are in alinement when the parts are assembled, is a dovetail tongue 10 on one face of a gate mold 11, which mold is approximately one-half the size of the finished gate, the gate mold tapering toward the ring pattern and being sufficiently elongated to reach somewhat beyond the corresponding end of the plate 3. The large end of the gate mold is provided with a manipulating member 12 which may be ring shape, or of other contour, permitting grasping by the fingers of the operator.

For use with the structure just described there is a flask 13 composed of two like mem-

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bers 14 and 15 respectively. Each flask member is of rectangular outline and constitutes a frame with thickened corners 16, which corners add to the rigidity of the flask so that its side and end walls may be made quite thin, the whole structure being of relatively small size, say about two inches by three to three and one-quarter inches in outside measurement. At one end of each flask section is a recess 17 matching the similar recess in the other flask section, each recess being of a size to fit over the portion of the gate mold extending through the corresponding end of the flask. At the opposite end of each flask section is a half stud 18 of semi-conical form so that when the two sections of the flask are together the two half studs form a complete stud of conical form.

On each side of each flask section is a semi-cylindrical projection 19 with external screw threads 20 on the curved wall of the projection, the two half cylindrical projections on each side, when brought together, forming screw-threaded studs which, when the flask sections are brought together, have clamp nuts 21 applied thereto, these nuts being conveniently in the form of wing nuts to facilitate manipulation. The nuts 21 serve to hold the flask sections firmly together and may be easily applied or removed by the force of the fingers of the operator.

A mold of the ring is prepared by applying one section of the flask onto the plate 3, the flask section having studs 22 at diagonally opposite corners of that face of the flask section to be applied to the other flask section. These studs 22 fit diagonally opposite sockets 4 so as to properly register the flask section. Then sand is placed in the flask section, filling the section after the usual manner of molding. Such section with the sand therein, as shown at 23 in Fig. 4 and also appearing in Fig. 5, is removed from the plate 3 and the other flask section is utilized in like manner. In each flask section there is produced a mold 25 representing half the ring and a mold 26 representing half the gate, and when the two flask sections are brought together and the nuts 21 are applied to the matching half studs 20 a completed mold is obtained as shown in Figs. 3 and 5.

In order to support the mold in the upright position for pouring, there is provided a pan 27 having a marginal flange 28 and a centrally located boss 29 with a taper passage adapted to receive the associated half studs 18.

Pouring is preformed in the usual manner, filling the ring mold 25 and gate mold 26, while any overflow or any spilling during the pouring action is caught by the pan 27, this being an important item when molding precious metals like gold.

The studs 22 serve to properly position the flask sections on the plate 3 and when the two flask sections are brought together the studs 22 serve to properly register the two sections. After the casting has sufficiently cooled the flask is taken apart and the sand loosened, thus exposing the cast ring with the gate lug fast thereto. The ring is finished by first removing the gate lug and taking off any roughness or inequalities on the ring itself and the ring is then subjected to the action of a ring stretcher to bring it to the desired internal diameter if need be.

What is claimed is:—

1. In a ring casting apparatus, a two-part flask with the parts substantially identical for the production of identical half molds in the two parts of the flask from a single half pattern, each part of the flask comprising a frame for the reception of molding material with the sides of the flask having half screw projections matching those of the other part of the flask, one end of each member of the flask having matching half studs for supporting the flask, and the other end of the flask having matching passages to constitute the mouth of a pouring gate.

2. In a ring casting apparatus, a two-part flask with the parts substantially identical for the production of identical half molds in the two parts of the flask from a single half pattern, each part of the flask comprising a frame for the reception of molding material with the sides of the frame having half screw projections matching those of the other part of the flask, one end of each member of the flask having matching half studs for supporting the flask and the other end of the flask having matching passages to constitute the mouth of a pouring gate, the screw projections having nuts common to each pair of half projections for securing the two halves of the flask together.

3. In a ring casting apparatus, a two-part flask with the parts substantially identical for the production of identical half molds in the two parts of the flask from a single half pattern, each part of the flask comprising a frame for the reception of molding material with the sides of the frame having half screw projections matching those of the other part of the flask, one end of each member of the flask having matching half studs for supporting the flask and the other end of the flask having matching passages to constitute the mouth of a pouring gate, the screw projections having nuts common to each pair of half projections for securing the two halves of the flask together, and the flask having a drip pan associated therewith and provided with a tapering opening for receiving the taper stud formed by the matching half studs at one end of the flask.

4. In a ring casting apparatus, a two-part flask with the parts substantially identical

5 for the production of identical half molds in the two parts of the flask from a single half pattern, each part of the flask comprising a frame for the reception of molding material with the sides of the flask provided with half projections matching those of the other part of the flask, one end of each member of

the flask having matching half studs for supporting the flask in an upright position, and the other end of the flask having matching passages together constituting a pouring gate for the complete flask. 10

In testimony whereof I affix my signature.  
ALFRED WENDT.