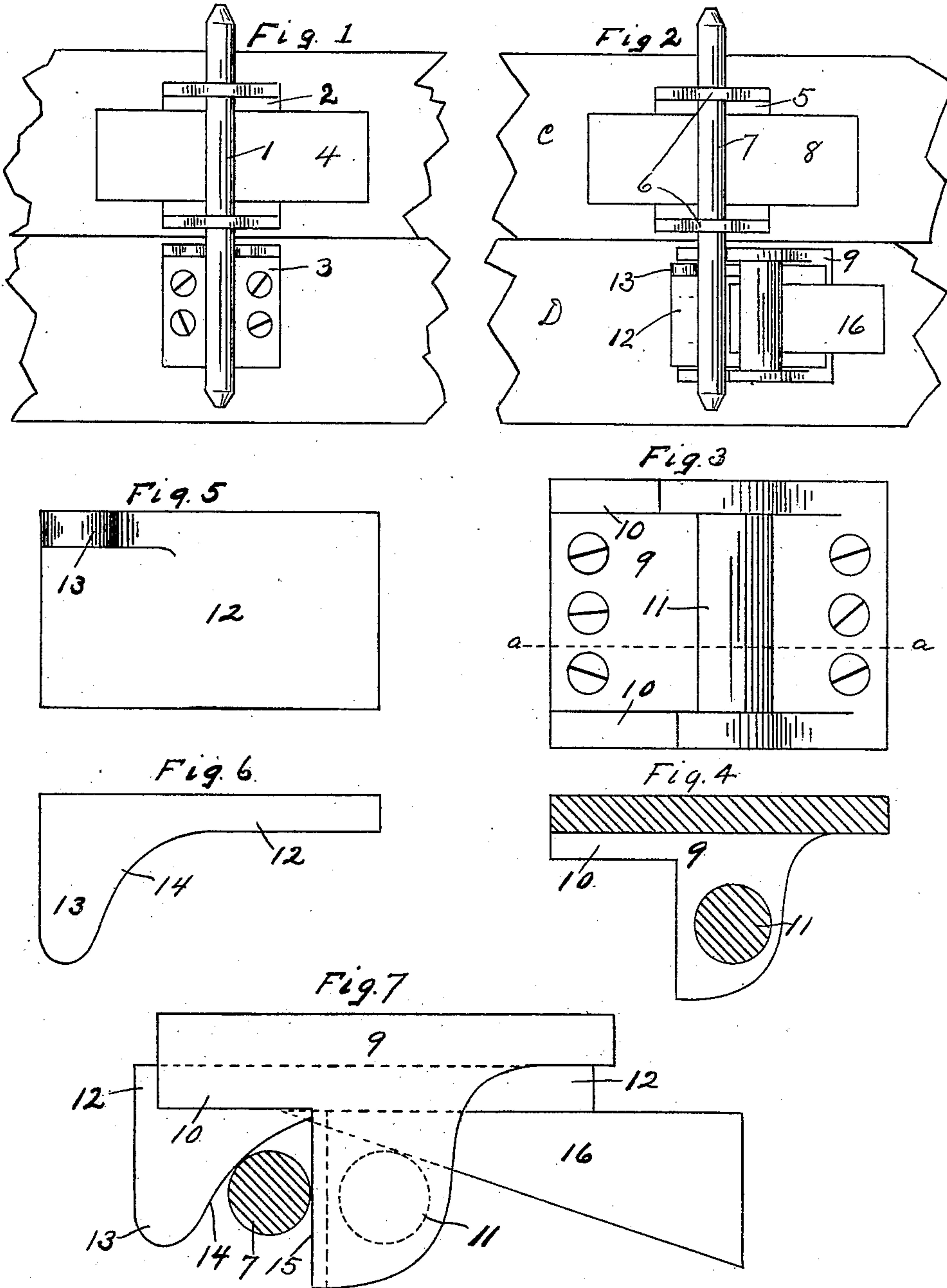


C. W. CLARK.
MOLDING FLASK CONNECTION.
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915,270.

Patented Mar. 16, 1909.



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MOLDING-FLASK CONNECTION.

No. 915,270.

Specification of Letters Patent.

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To all whom it may concern:

Be it known that I, CHARLES W. CLARK, a citizen of the United States, residing at Portland, Oregon, have invented certain new and useful Improvements in Molding-Flask Connections, of which the following is a specification.

My invention relates to molding flask connections, for connecting the cope and the drag of a molding flask together in proper register with each other and at the same time making it possible to preserve the adjustment of the parts so that the cope can be replaced upon the drag in the same relative position after the parts have been separated for the purpose of removing the pattern.

Among the salient objects of my invention are to provide a flask connection which is simple, both in construction and operation and which can be readily manipulated and quickly adjusted without the use of any other tools than a hammer or other object with which to strike.

My invention will be readily understood from the following description, reference being had to the accompanying drawings, in which—

Figure 1 is a fragmentary view, showing a portion of one end of a molding flask with a flask connection in common use; Fig. 2 is similar view showing the opposite end of the flask and the coupling which constitutes my invention. Fig. 3 is a face view of the base plate of my invention. Fig. 4 is a cross sectional view of the same taken on the line *a—**a* of Fig. 3. Fig. 5 is a face view of an adjustable plate provided with a lug member, and is adapted to move upon the base plate and between the sides thereof. Fig. 6 is an edge view of the plate shown in Fig. 5. Fig. 7 is a side elevation of the parts assembled, showing the connecting pin in section, and the wedge in place to hold the parts in adjusted position.

Referring to the drawings, the parts shown in Fig. 1 are well known in the art and constitute no part of my invention, being commonly used on molding flasks for holding the two parts thereof at one end in register with each other. This connection constitutes a pin 1 extending through the ears of plates 2 and 3, which pin is held in place by means of a wedge 4. I use this connection upon one end of the flask. Owing to the fact that the flasks frequently warp or shrink, it is necessary to have a coupling for

one end, at least, which can be adjusted to offset the shrinkage of the flask. This is what my invention accomplishes.

In Fig. 2 the opposite end of the flask is shown in fragment. Upon one member of the flask, preferably the cope, is mounted a plate 5, similar to plate 2, Fig. 1, having the ears 6—6, through which extends a connecting pin 7. This pin is preferably held in place by means of a wedge 8, although the pin might be mounted upon the flask in any other desirable manner. Attached to the lower portion of the flask, known as the drag, is a base plate 9 having the side portions 10 and the cross-piece 11, which cross piece may be formed upon the casting, or be made by using a piece of iron and molding it in place, as desired.

In Figs. 5 and 6 is shown an adjustable plate 12 adapted to slide upon the base plate 9, between its sides 10 and underneath the cross piece 11. The adjustable plate 12 is provided with an outwardly projecting lug portion 13 having a curved or concaved edge surface 14.

When the adjustable plate 12 is placed upon the base plate 9 in the position shown in Fig. 7, it will be seen that the movement of said adjustable plate 12 upon the base plate 9 operates to change the angle or pocket formed between the lug portion 13 and the lugs upon the base plate which support the cross piece 11. Thus it will be seen that when the adjustable plate 12 is moved inwardly, the pin shown in section in Fig. 7 is moved outwardly, and when the plate is moved away from the base plate, the pin is allowed to move inwardly. The pin 7, it will be understood, is secured to the cope or upper portion of the flask and if the flask shrinks by use, of course the pin is thereby drawn into a different position relative to the lower portion of the flask. By means of the adjustability of the adjustable plate upon the base plate, any variation in the position of the pin can be provided for. In other words, the cope is placed upon the drag for the ramming operation and the parts adjusted. The cope is then removed after the ramming process and the pattern removed and the cope replaced in exactly the same position for the pouring. The adjustable plate 12 is held in adjusted position by means of a wedge 16 being driven underneath the cross piece or portion 11, operating to lock the plate 12 and the base plate 9 se-

curely together. I use a wedge for holding these parts in adjusted position because of its simplicity. Nothing more than a hammer or other object with which to strike a blow is needed to adjust or change the parts, so that any one can make the adjustment promptly and effectively. It is necessary in order to insure a perfect casting, that the cope and drag be placed in exactly the same position or register with each other after the pattern has been removed as they were before and during the ramming operation. This can be accomplished by means of my invention, no matter if the parts have been changed somewhat, as they always are, by reason of constant use and under the heat to which they are subjected.

While I have here shown and described one embodiment of my invention, I do not limit my invention to the particular device here shown and described, as modifications and alterations can be made without departing from the spirit of the invention.

I claim:

1. A molding flask connection comprising a pin mounted upon one member of the flask and projecting along side of the other member thereof, two cooperating lug members mounted upon the other of said flask members and together forming an angle or pocket for receiving said pin, the lug portions of said members being so constructed that their adjustment toward and from each other operates to move outwardly or inwardly said angle or pocket, whereby to engage said projecting pin at various distances away from the flask member, and means for securing said lug members in adjusted position, substantially as described.
2. A molding flask coupling comprising a

pin mounted upon one member of the flask and extending along side of the other member thereof, two lug members mounted upon the other member of said flask with the lugs thereof adjustable toward and from each other, and a wedge adapted to be driven between portions of said lug members to lock them in adjusted position with the lugs thereof engaging the pin on opposite sides thereof, substantially as described.

3. A molding flask coupling comprising a pin mounted upon one member of the flask and extending along side of the other member thereof, two lug members mounted upon the other flask member, one of said lugs having a straight engaging face and the other having an inclined or beveled engaging face, said engaging faces being adapted to be adjusted toward and from each other to form an angle or receiving pocket for said pin, and means for locking said lug members together in adjusted position for holding said pin.

4. A molding flask coupling, comprising a pin upon one member of the flask projecting along the side of the other member thereof, a base plate provided with two lug portions and a cross piece therebetween mounted upon the other flask member, an adjustable lug member slidably mounted upon the base plate so as to adjust the lugs of the two members toward and from each other, and means for locking said base plate and lug member together in adjusted position, substantially as described.

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Witnesses:

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