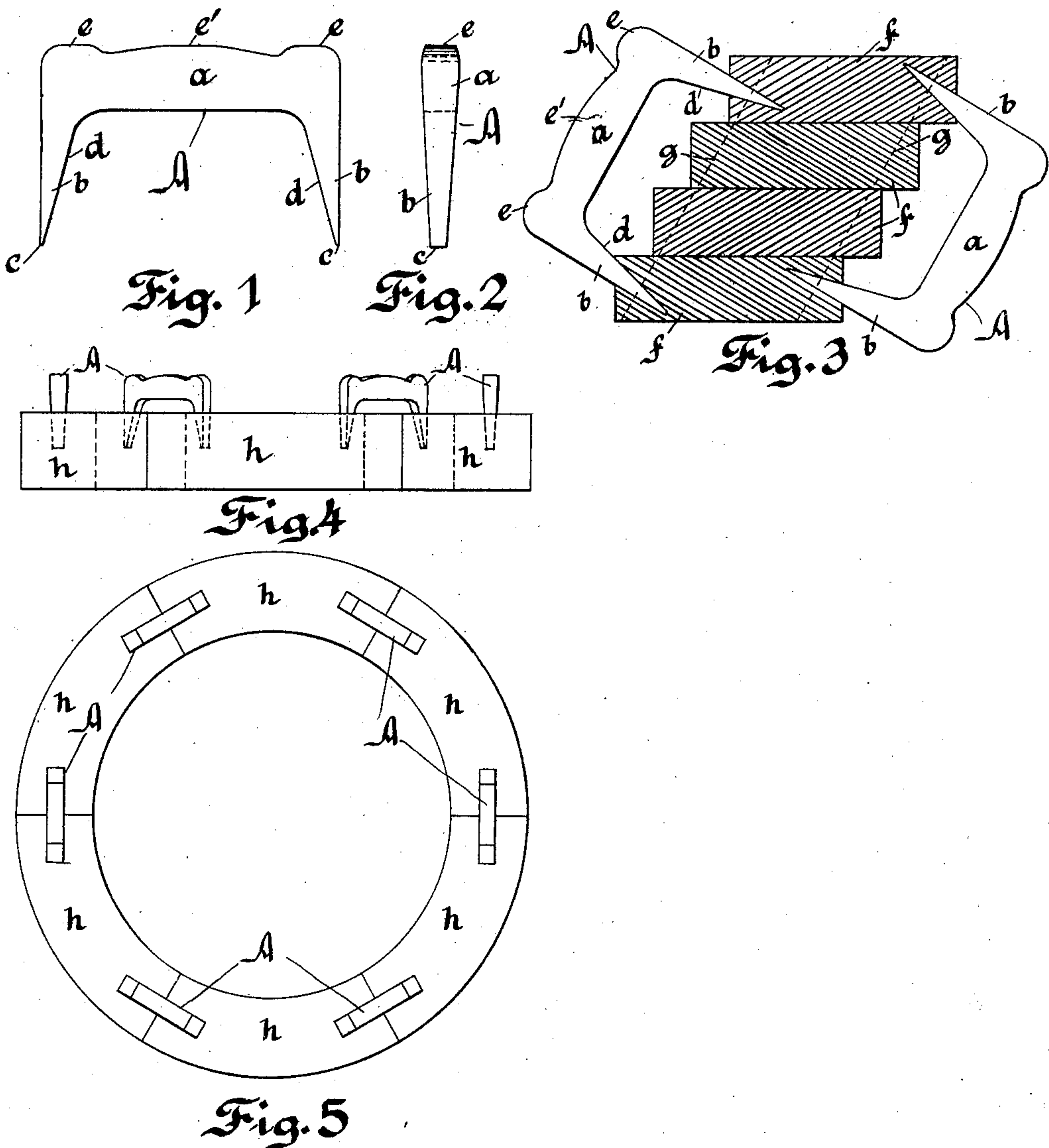


No. 862,189.

PATENTED AUG. 6, 1907.

E. O. OLSEN.
PINCH DOG.

APPLICATION FILED APR. 24, 1905.



Witnesses

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EDWIN O. OLSEN, OF MILWAUKEE, WISCONSIN.

PINCH-DOG.

No. 862,189.

Specification of Letters Patent.

Patented Aug. 6, 1907.

Application filed April 24, 1905. Serial No. 257,084.

To all whom it may concern:

Be it known that I, EDWIN O. OLSEN, of Milwaukee, Wisconsin, have invented a Pinch-Dog, of which the following is a specification.

5 My present invention relates to a pinch-dog or pattern-maker's device for holding together several parts of a pattern which are being glued, until the glue has set. Such devices, as well known, comprise a body having two legs at right angles thereto, one of which
10 legs is driven into each of the pieces which are to be held or clamped together by the dog, and the inner faces of these legs are given an oblique slope, or inclined towards each other, so as to draw the two pieces tightly together in proportion to the extent to which
15 the legs are driven in.

The object of my invention is to improve the ordinary form of pinch-dog by a formation enabling each leg to be driven separately and independently of the other leg. All the dogs heretofore used, so far as known to
20 me, have the upper surface so formed that it is practically impossible to drive the legs separately, or at least to give a square blow on each leg without disturbing the other leg; and it is very desirable that they should be so driven, owing to the fact that the two pieces into
25 which the legs are severally driven offer different resistances to driving, and therefore the dog cannot be well driven by hammering on the center thereof.

My improvements and their application are well shown in the accompanying drawings, wherein

30 Figure 1 is a side elevation and Fig. 2 an end elevation of my improved dog. Fig. 3 is a view of my dog as applied to securing the several pieces of a pattern which are being glued. Figs. 4 and 5 are a side elevation and plan, respectively, of an annular pattern composed of segments, showing the application of my dog
35 in securing together such segments while being glued.

In these drawings every reference letter refers always to the same part.

In these drawings my pinch-dog is designated A, and
40 comprises the horizontal bar or body portion *a*, and the two parallel legs *b* having preferably chisel-shaped edges *c*, and inwardly inclined inner sides *d*. The special feature constituting my invention resides in a pair of humps or heads *e* that are formed by providing
45 additional thicknesses constituting reinforcements on the bar *a* at each end thereof, that is to say, one over each leg *b*, and which are adapted to be struck individually by a hammer. I also prefer to enlarge the body *a* at the center, by a raised portion *e'*, which
50 serves the double function of strengthening it against bending, and permitting a hammer-blow to be struck in the center when desired. The fillets between the legs and the body of the dog on the under side serve to

prevent angular crystallization and also to provide a reinforcing support against bending of the legs in striking a blow. 55

Fig. 3 illustrates very pointedly the advantage and application of the humps *e* in one of the awkward situations which a pattern-maker has to meet. A series of blocks or segments *f*, forming part of a pattern, such as, for instance, a propeller-blade, are to be glued together in a stepped position, to be subsequently cut away on the dotted lines *g*. To hold them together, two or more pinch-dogs A are used, their legs spanning several segments. Each leg *b* has to be driven independently
60 in an oblique direction into one of the blocks *f*, and the heads *e* enable the driving to be done with great ease, whereas with the old form of pinch-dogs without the heads *e*, it was very difficult to properly set the dogs. 65

Figs. 4 and 5 show the application of my dogs to an annular pattern formed of radially divided segments
70 *h*. At each junction one of the dogs *a* is applied in the manner shown, each leg of the dog being driven into one of the adjacent segments *h*.

While the dogs may be made in some cases as drop-forgings, they are preferably of cast-steel or malleable cast-iron. 75

What I claim as new and desire to secure by Letters Patent is:

1. A pinch dog comprising a body portion with legs at right angles thereto, said body portion being of greater cross area than the legs and said legs having their inner sides inclined upward and inward from their points to and joined with the under face of the body portion, said body portion being formed at each end with a raised hump providing additional thickness and reinforcements at the angles of the legs, said body portion being further formed between the end humps with an integral raised hump to receive a blow in driving the dog and to aid in preventing spreading of the legs in driving. 80 85 90

2. A pinch-dog comprising a body portion, legs with their inner sides inclined upwardly and inwardly from their points to and joined with the under face of the body portion, said body portion being formed at the ends with raised humps providing additional thickness and reinforcements at the angles formed by the legs. 95

3. A pinch-dog comprising a body portion and legs at an angle thereto at the ends, said legs having their inner sides inclined inwardly and upwardly from their points, with fillets between the legs and the body portion on the under side, said body portion being formed at each end upon its outer face opposite the angles formed by the legs with the body portion with raised humps providing additional thicknesses and reinforcements at the angles of the legs to receive a blow in driving the dog and to aid in preventing angular crystallization and spreading of the legs. 100 105

In testimony whereof I have hereunto set my hand in presence of two witnesses.

EDWIN O. OLSEN.

In presence of—

A. W. WALLBER,
GEORGE W. COLLIS.