

(No Model.)

H. WEISSE.
PUZZLE JOINT.

No. 442,653.

Patented Dec. 16, 1890.

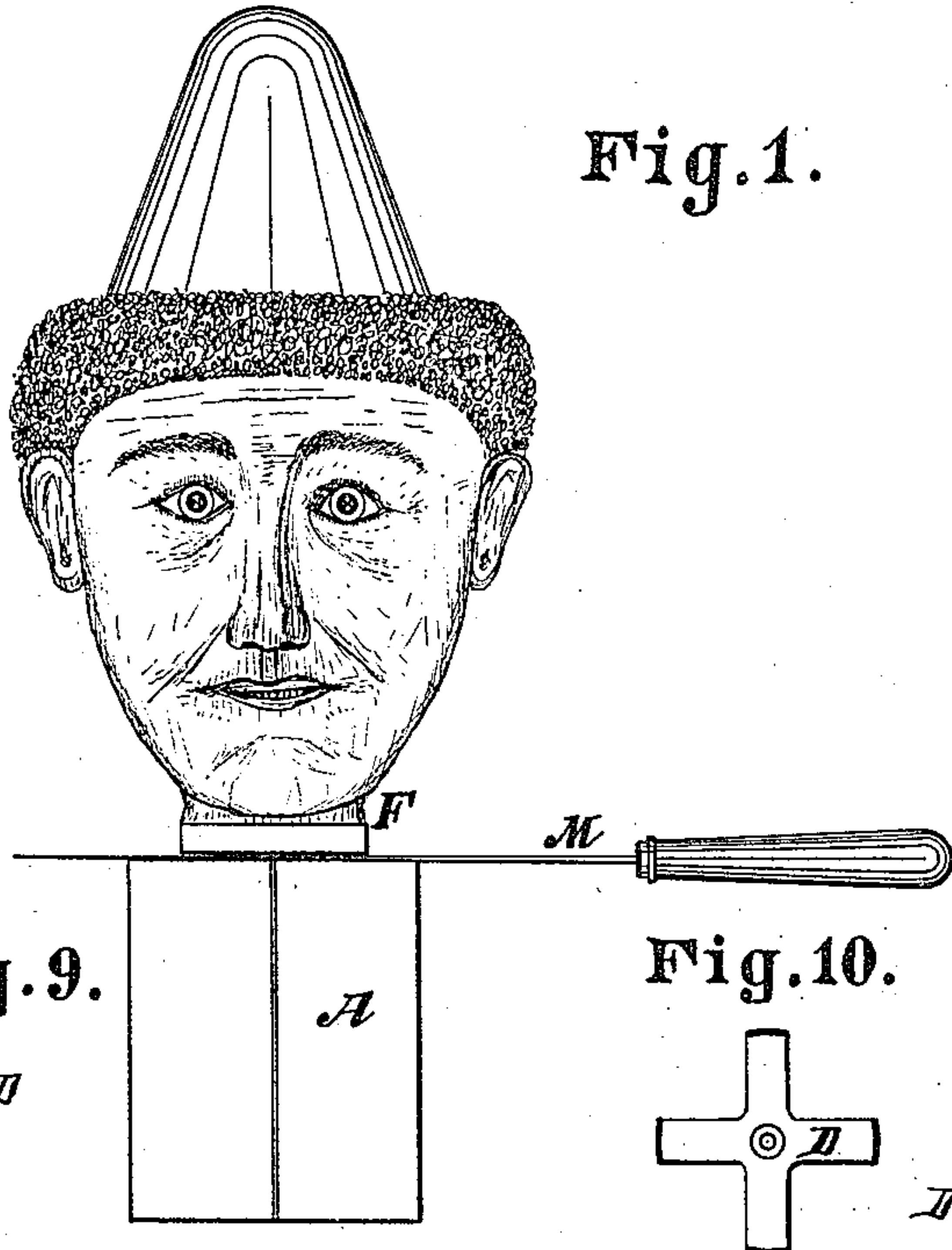


Fig. 1.

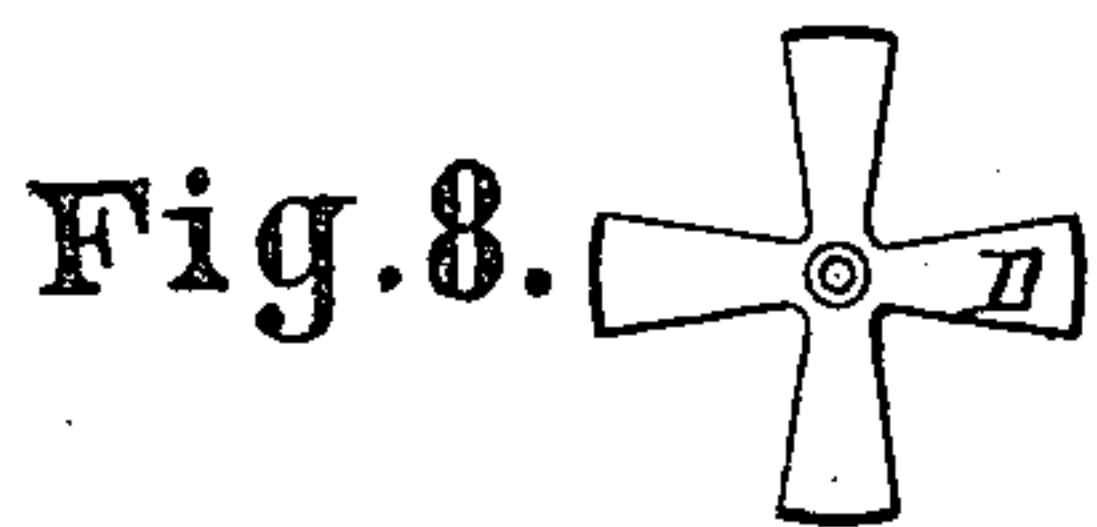


Fig. 9.



Fig. 10.

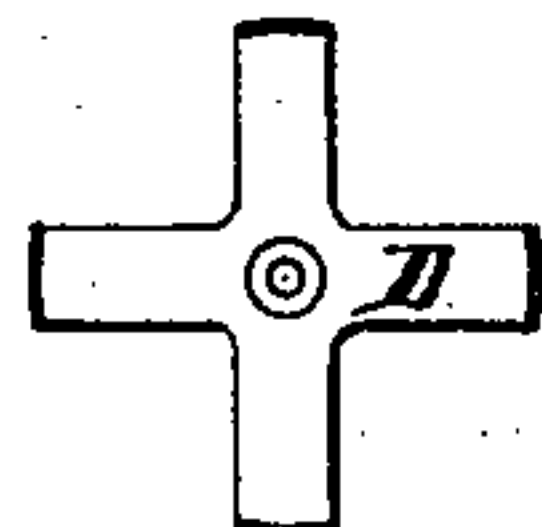


Fig. 11.

Fig. 2.

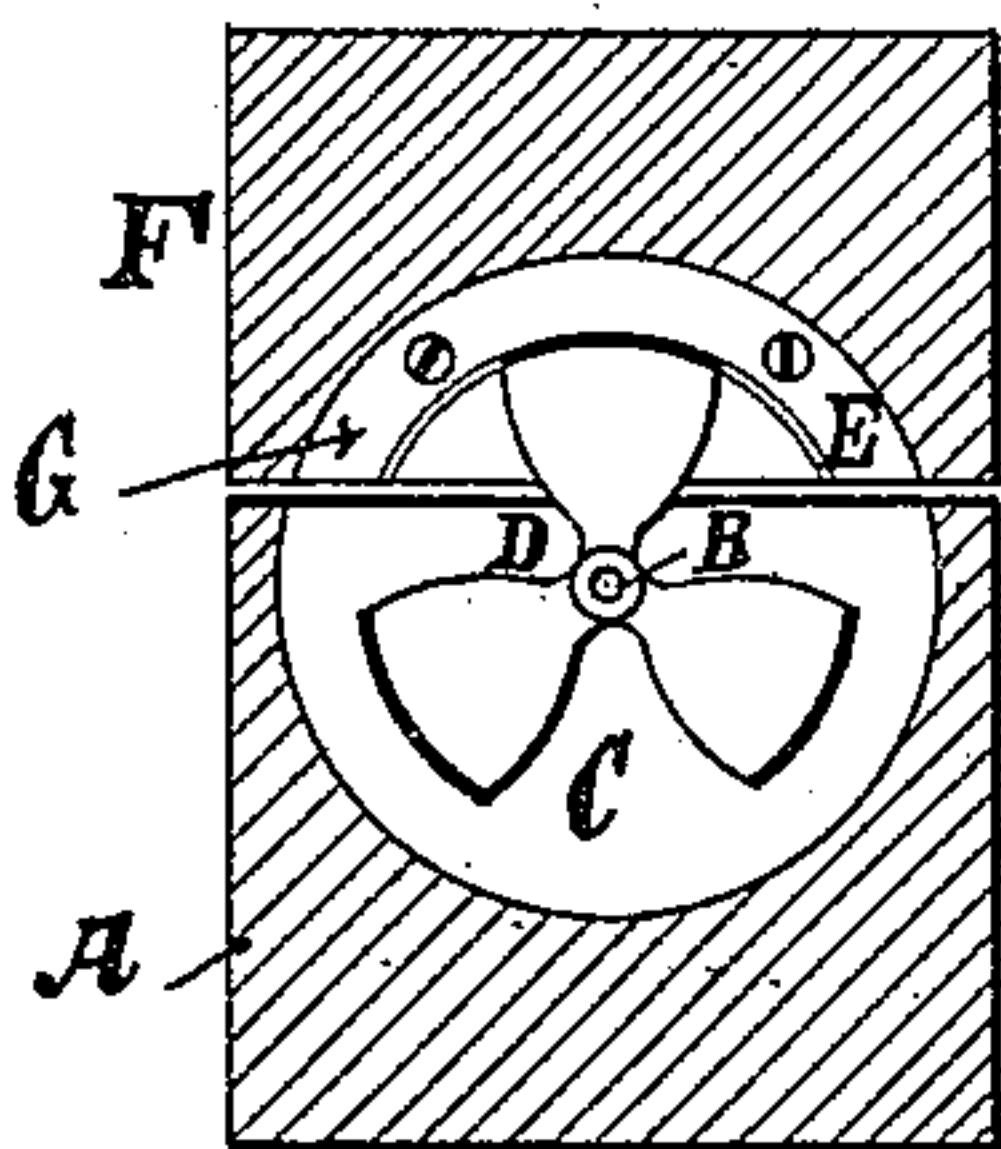


Fig. 3.

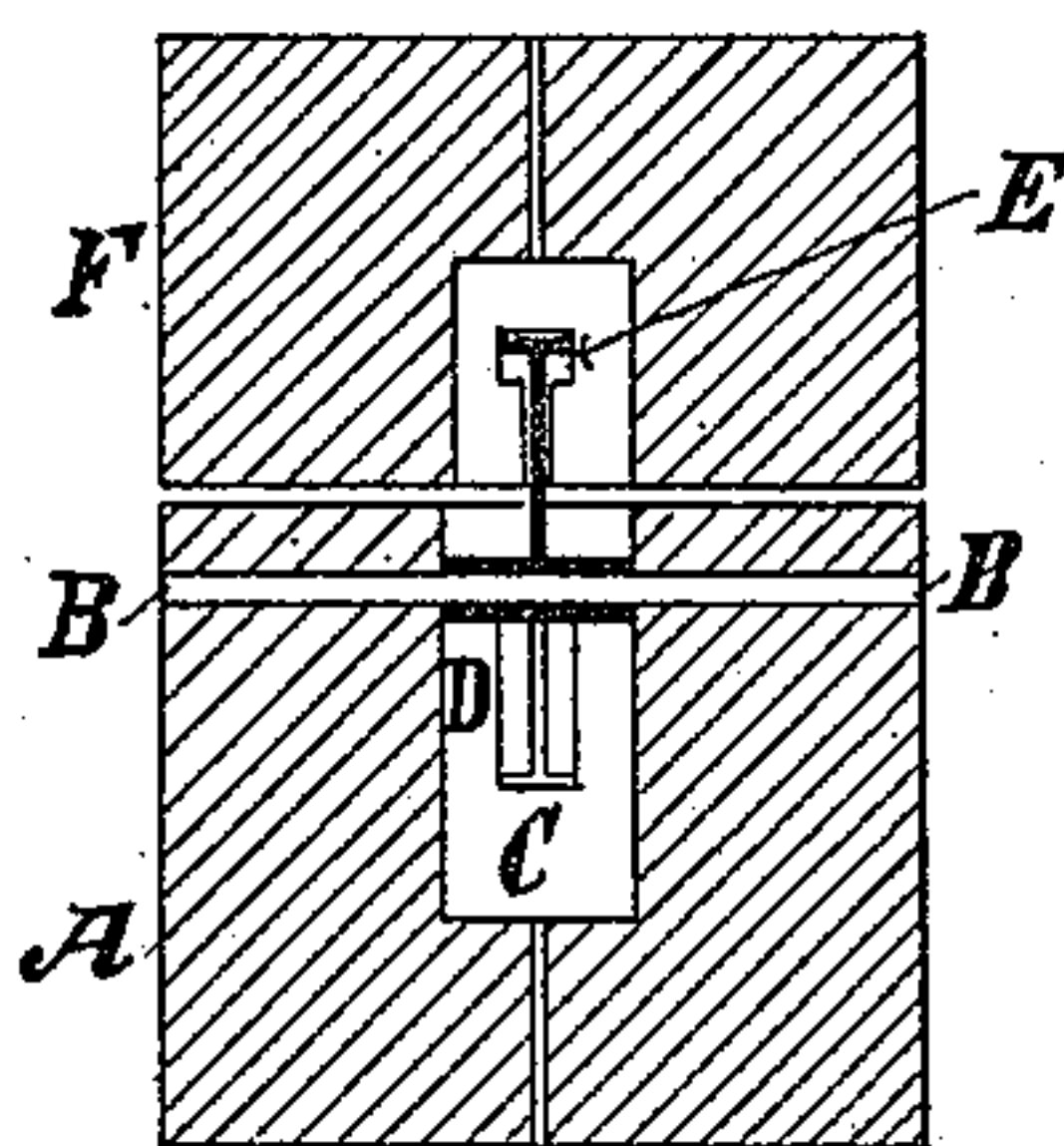


Fig. 4.

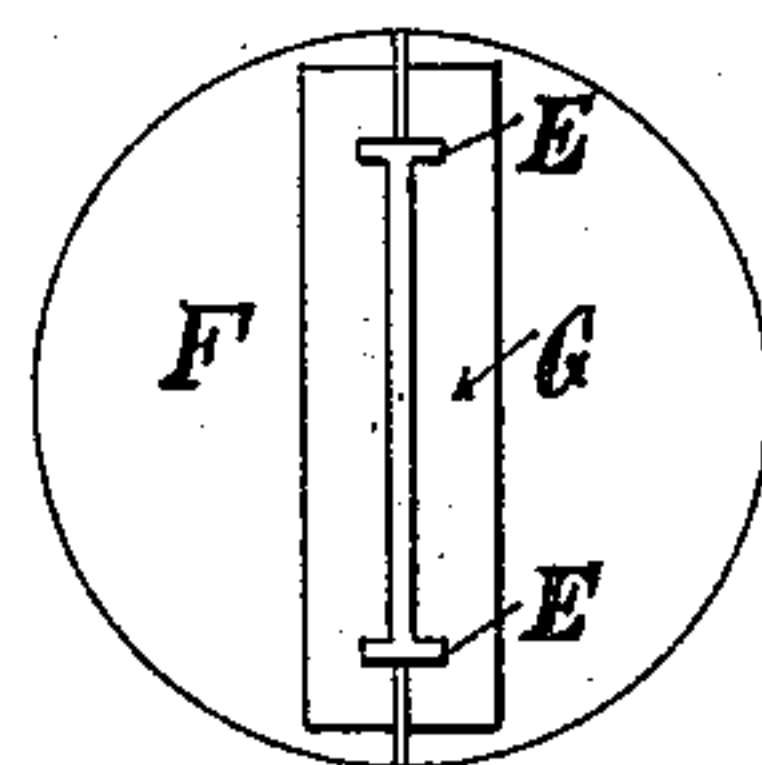


Fig. 5.

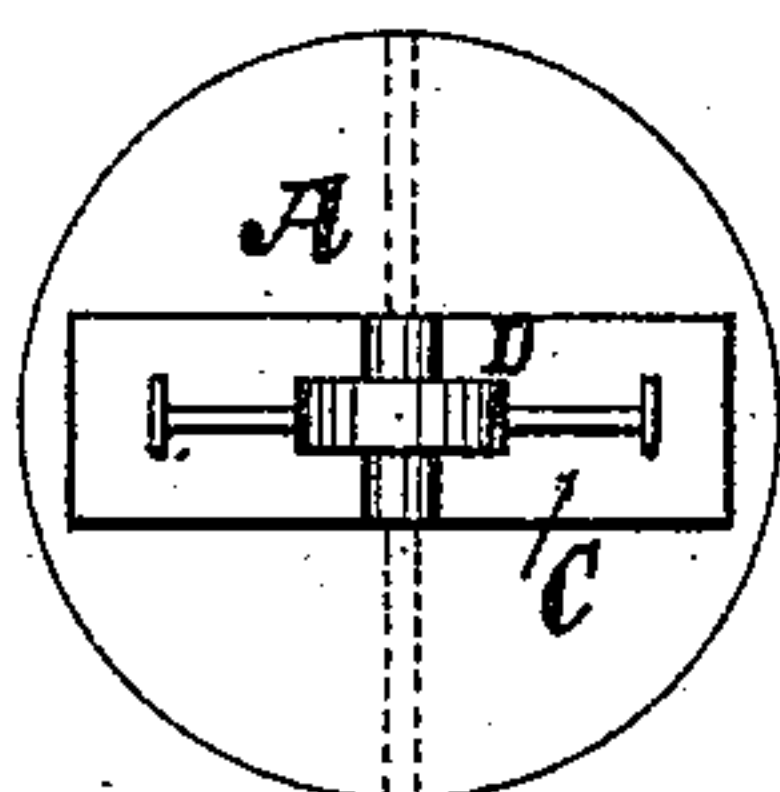


Fig. 6.

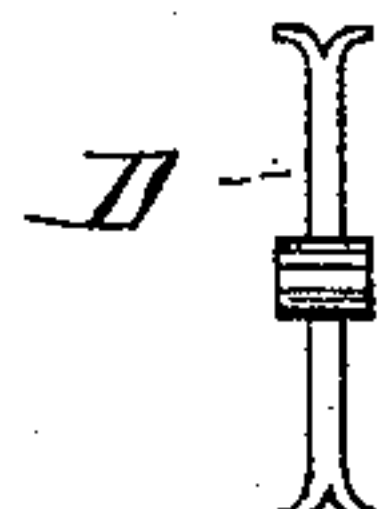
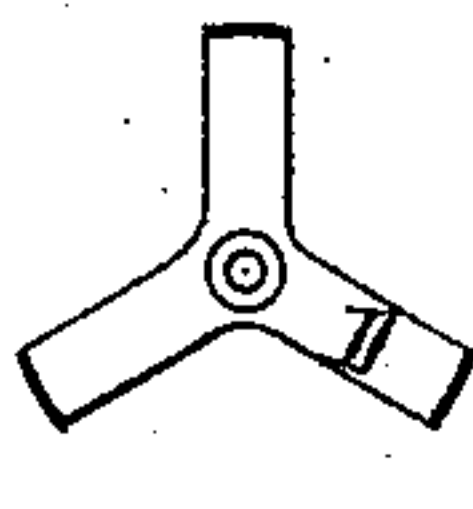


Fig. 7.

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Wm. Wagner.
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UNITED STATES PATENT OFFICE.

HERMANN WEISSE, OF CARLSRUHE, GERMANY.

PUZZLE-JOINT.

SPECIFICATION forming part of Letters Patent No. 442,653, dated December 16, 1890.

Application filed September 17, 1890. Serial No. 365,300. (No model.)

To all whom it may concern:

Be it known that I, HERMANN WEISSE, a subject of the Emperor of Germany, residing at Carlsruhe, Baden, German Empire, have
5 invented an Improved Inseparable or Puzzle Joint, of which the following is a specification.

My invention relates to an inseparable or puzzle joint which unites two bodies or objects in such a manner that a knife-blade or
10 other flat instrument of the kind may be readily passed through the joint without separating the two bodies or parts, the same remaining jointed as before.

15 In the accompanying drawings, Figure 1 is a front elevation of two bodies jointed according to my invention, with a knife-blade cutting through the joint. Fig. 2 is a vertical section of two bodies jointed according to my invention. Fig. 3 is a vertical section of
20 the same, taken at right angles to Fig. 2. Fig. 4 is a bottom view of the upper part or body. Fig. 5 is a top view of the lower part or body. Fig. 6 and 7 are respectively a front and side elevation of a modification of the star-wheel.
25 Figs. 8, 9, 10 and 11 are respectively corresponding views of two other modifications of the star-wheel.

The lower part or body A has a recess C
30 around the shaft B of sufficient width to allow the star-wheel D, mounted on said shaft B, to turn freely within said recess. The said star-wheel carries three or more wings, the outer edges of which are bent to both sides to en-
35 gage a groove E within a metal piece G, provided in the upper part or body F, to which the lower part A is being jointed by the said star-wheel and groove. The joint effected by the said wheel and groove is so constructed
40 that in passing a knife-blade M or any other flat blade or similar object between the joint the said blade may pass without severing the upper part F from the lower part A. The joint, on the contrary, remains as active as be-
45 fore, though the knife passes through from one side to the other, or vice versa. This result is obtained by the star-wheel D, which turns when the blade is made to pass the joint. While turning, the wing in engage-

ment with the groove E comes free of the 50 same; but before the said wing is disengaged from the groove the next wing to follow enters into engagement with the groove E. By this means no interruption of the joint will occur. The passage for the blade M being 55 cleared to allow the said blade to cut through, the said passage will close behind the blade before the joint has been separated, and consequently the two parts F and A remain jointed, though the blade cuts through the 60 joint in one or the other direction and with as many repetitions as may be desired. One wing will at all times be in engagement with the groove E, and the upper and lower parts F and A by this means are jointed insepa- 65 rably.

The star-wheels D, as shown in Figs. 2, 6, 8, and 10, may carry three, four, or more wings. The same must be arranged in width in such a manner that after the blade has passed one 70 wing remains in the center part of the upper body F.

The groove E, instead of being provided within a separate metal piece, as shown in Fig. 4, may as well be cut directly into the mate- 75 rial of the upper body F.

My invention is destined to be principally applied to toys. In Fig. 1, for instance, the upper and lower body, jointed according to my invention, have the shape of a head and 80 trunk of a person, the head being cut off by the knife M without being severed, though the knife cuts through as often as may be desired.

What I claim is— 85

The combination of body A with shaft B and star-wheel D, having laterally-extending edges, and with body F, having a groove adapted to be engaged by said edges, sub- 90 stantially as specified.

In testimony whereof I hereunto sign my name, in the presence of two subscribing witnesses, this 29th day of August, 1890.

HERMANN WEISSE.

Witnesses:

JACOB DANNY,
C. GROPP.