

No. 767,034.

PATENTED AUG. 9, 1904.

V. BELANGER.
ROTARY SPINNING RING.
APPLICATION FILED FEB. 11, 1901.

NO MODEL.

FIG. 1 -

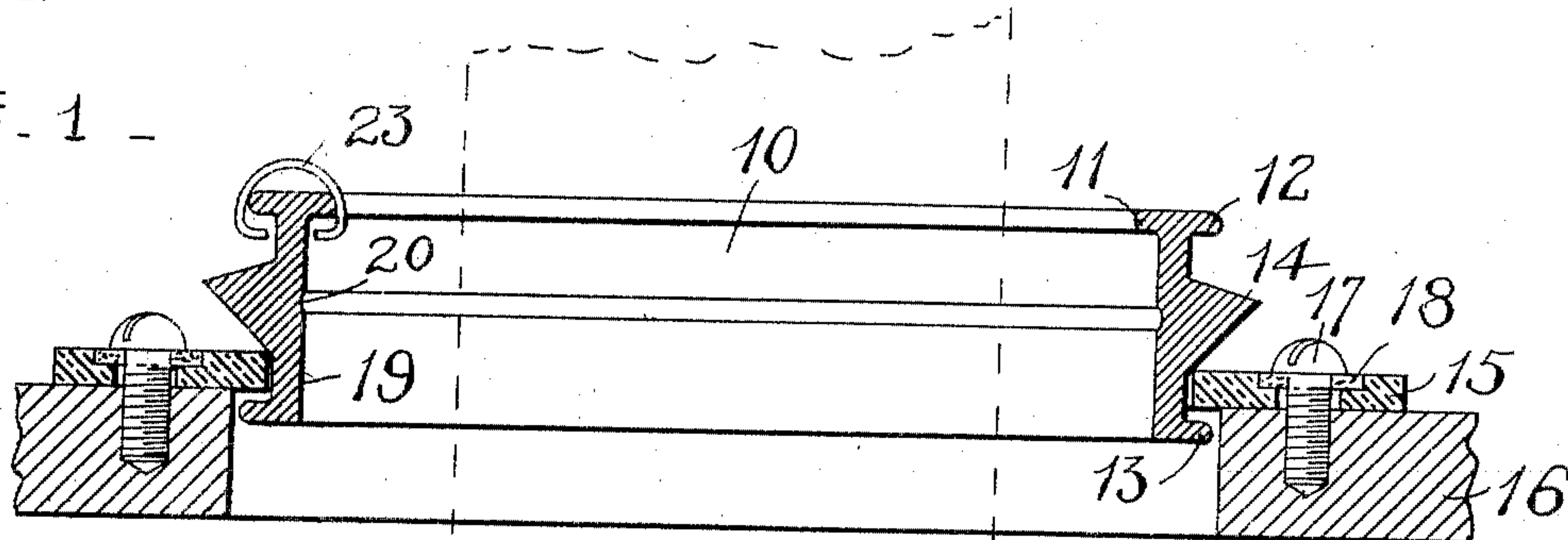


FIG. 2 -

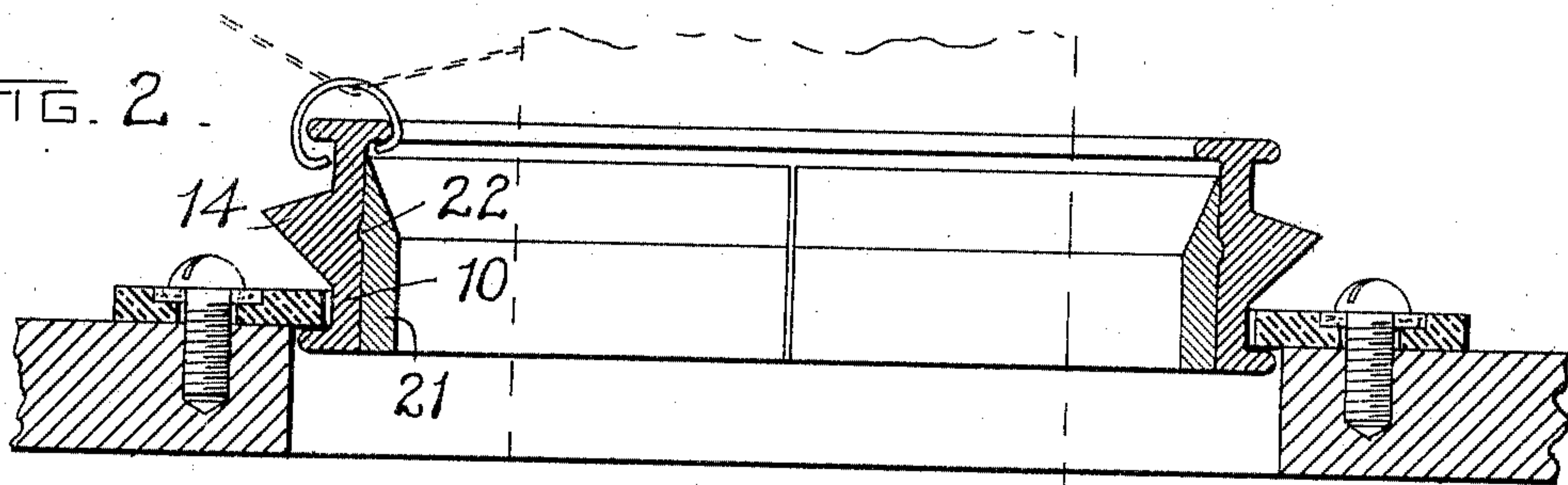


FIG. 3 -

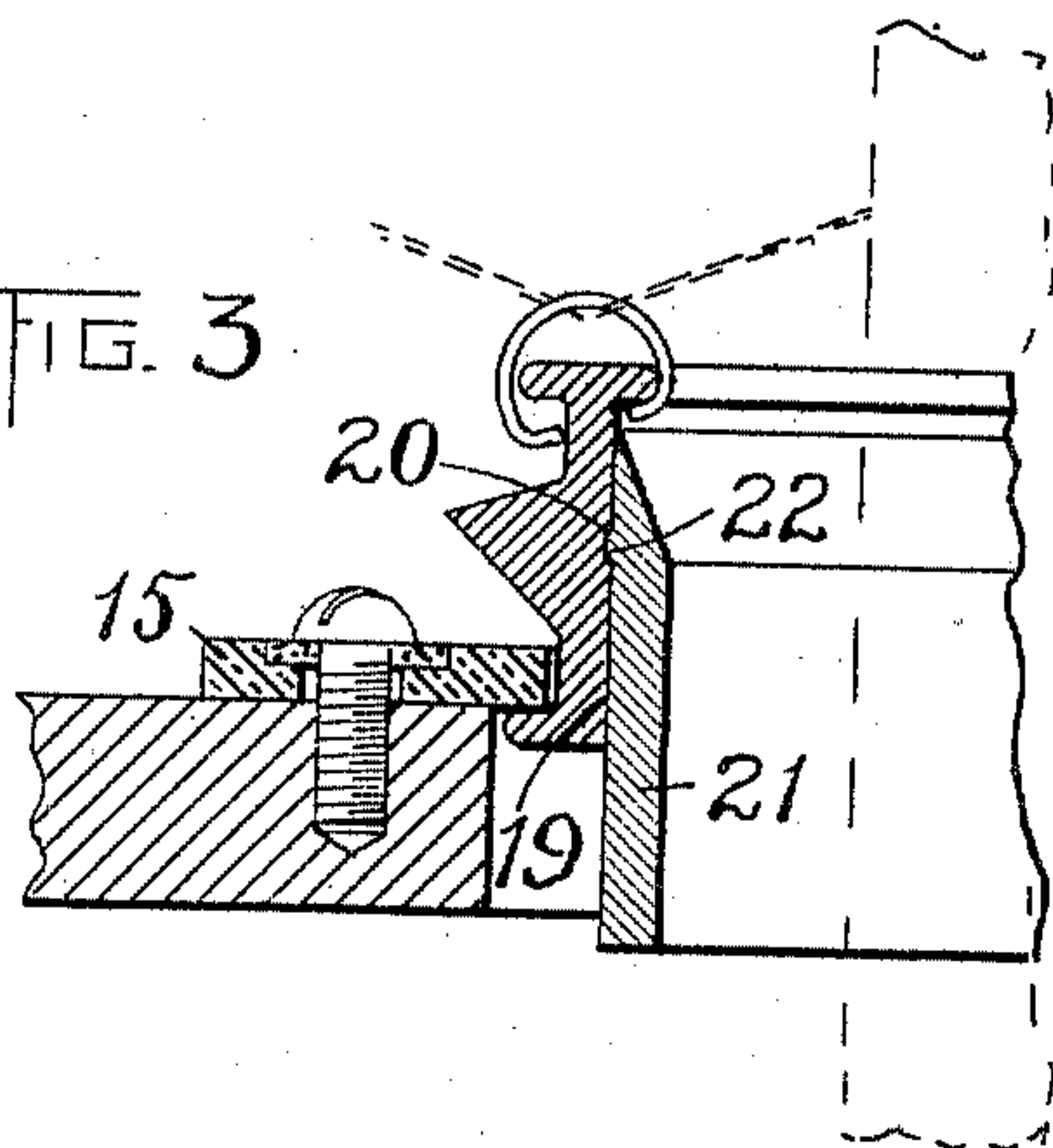


FIG. 4 -

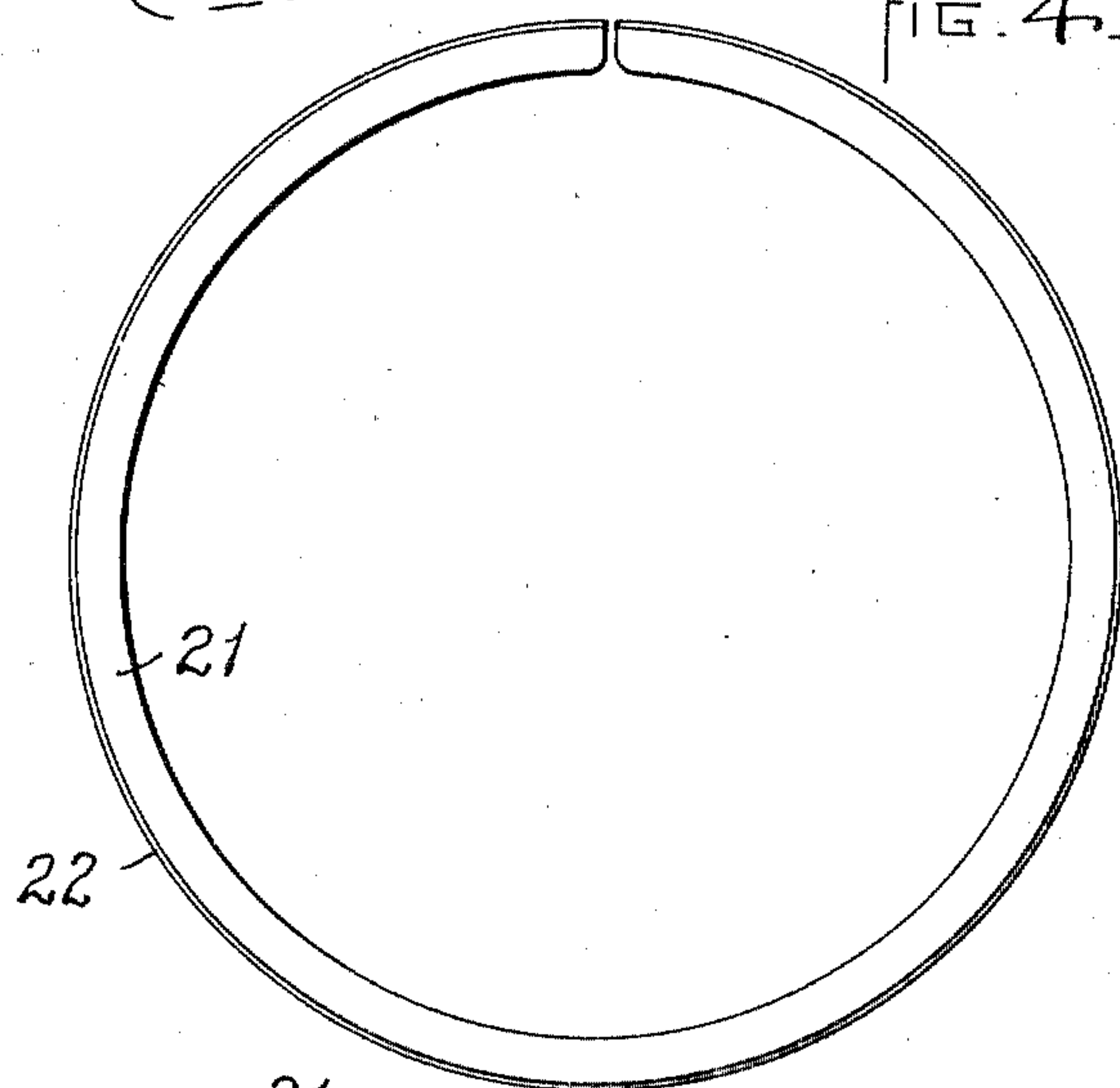
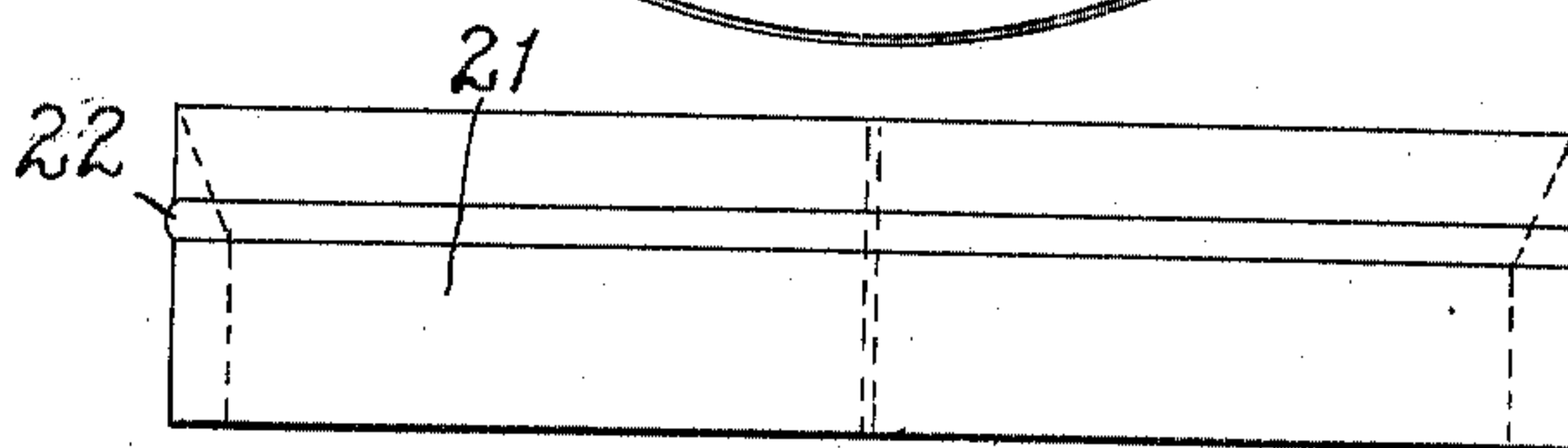


FIG. 5 -



WITNESSES:
E. Batchelder
P. W. Pezzetti.

INVENTOR:
by Victor Belanger
Elmer Brown & Company
his atty

UNITED STATES PATENT OFFICE.

VICTOR BÉLANGER, OF SEAVIEW, MASSACHUSETTS.

ROTARY SPINNING-RING.

SPECIFICATION forming part of Letters Patent No. 767,034, dated August 9, 1904.

Application filed February 11, 1901. Serial No. 46,785. (No model.)

To all whom it may concern:

Be it known that I, VICTOR BÉLANGER, of Seaview, in the town of Marshfield, in the county of Plymouth and State of Massachusetts, have invented certain new and useful Improvements in Rotary Spinning-Rings, of which the following is a specification.

This invention has relation to spinning and twisting mechanism, and more particularly to rotary rings which are employed as a part thereof.

It has been found that in spinning or twisting various grades of yarn for warp and filling it is necessary to construct the rings of different weights.

The object of this invention is to provide a standard ring which may be employed for all sizes and grades of yarn, whether for warp or filling, whereby the periphery of a ring, the traveler-race, and other essential parts may be unvarying, so that any ring may be employed upon any spinning-frame regardless of the character of the yarn to be spun or twisted thereon. In order to accomplish this, however, I provide means for varying the weight of the ring in accordance with the character of the yarn.

Referring to the accompanying drawings, which illustrate one embodiment of the invention, Figure 1 represents a vertical section through a ring embodying my invention. Fig. 2 represents the ring when weighted for yarn of an intermediate size. Fig. 3 represents the ring as being provided with a heavier weight. Figs. 4 and 5 represent one of the weights detached.

The ring itself, so far as its general features of construction are concerned, does not differ from the one illustrated in my copending application, Serial No. 37,971, filed November 28, 1900. It is indicated at 10 and is shown as having the two horizontal flanges 11 and 12 at its upper end, which constitute the traveler-race. Between the external flange 13 and its lower end and the flange 12 there is a beveled flange 14, which with the flange 13 forms a groove for the reception of the ring-like casing 15, upon which the beveled side of the flange 14 is adapted to rest, as shown in Fig. 1. This casing is attached to the rail

16 by a screw 17 and a resilient packing 18. The internal wall of the ring is cylindrical, as indicated at 19, save for the groove 20, which is formed between the ends of the ring. A ring thus constructed may be of a weight desirable for use in connection with the lightest yarn, whether for warp or filling, and constitutes what I term a "standard" ring. It may be case-hardened and highly polished and may be employed upon any spinning or twisting frame. In order to vary the ring, however, and fit it for heavier or stronger yarns, I provide a series of graded attachments or weights, which may be secured to the ring to form a part thereof. These attachments or weights are graded for all of the various grades of yarn that are manufactured. Each attachment consists in the illustrated embodiment of the invention of a split ring 21, having an external bead 22 adapted to enter the groove 20 of the ring 10. The thickness of the ring is not sufficient to prevent the filling of the bobbin to its fullest extent, the thickness of the attachments, however, being variable in accordance with their weights. The said attachments may also vary in length in order to add the greatest weight to the ring.

In order to attach one of the weights to a ring, it is compressed and forced into the cylindrical aperture in the ring until the bead 22 enters the groove 20, after which the inherent resiliency of the weight causes its ends to separate and it will become to all intents and purposes an integral part of the ring, so as to rotate freely therewith. It is not essential that the weight should be constructed as I have described it, for it may be made in many different ways according to particular requirements without departing from the spirit and scope of my invention. Preferably the upper end of the attachment 21 is internally beveled to prevent the breaking of the yarn.

It will be understood that the ring 10 is, like the ring 10 in my application previously referred to, capable of both axial and lateral movement in accordance with the varying strains upon the yarn and that when it is rotated rapidly it seeks the center of movement and to all intents and purposes moves in uni-

son with the traveler 23 on the traveler-race, as indicated in Figs. 2 and 3. It varies from said ring, however, in that it is formed in two separate parts, one of which carries a race, the provision of the other part being for varying the inertia of the ring or adding to its weight.

Having thus explained the nature of the invention and described a way of constructing and using the same, although without attempting to set forth all of the forms in which it may be made or all of the modes of its use, I declare that what I claim is—

1. A rotary spinning-ring having means for varying its inertia for yarn of various grades or sizes.

2. A rotary spinning-ring, having detachable means for varying its inertia.

3. A rotary spinning-ring having means for varying its weight.

4. The combination with a rotary spinning-ring, and a traveler thereon, of a series of graded attachments, adapted for separate use in connection therewith to adapt said ring for spinning various grades or sizes of yarn.

5. The combination with a rotary spinning-ring and a traveler thereon, of means for adapting said ring for various grades or sizes of yarn.

6. The combination with a rotary spinning-ring, of a circular removable weight therefor.

7. The combination with a rotary spinning-ring, of a series of graded weights adapted for separate attachment upon said ring.

8. A rotary spinning-ring consisting of two telescoping sections frictionally connected to rotate in unison.

9. A rotary spinning-ring of unvarying or standard size, having provisions for the attachment of a device independent of the traveler to vary the draft of the ring and traveler on the yarn.

10. A two-part rotary spinning-ring, the parts of which are detachable, but which are held against rotative movement relatively to each other.

11. A two-part rotary spinning-ring, one part of which is equipped with a traveler-race, and is separable from the other part, said members being connected against rotative movement relatively to each other.

In testimony whereof I have affixed my signature in presence of two witnesses.

VICTOR BÉLANGER.

Witnesses:

MARCUS B. MAY,
E. BATCHELDER.