

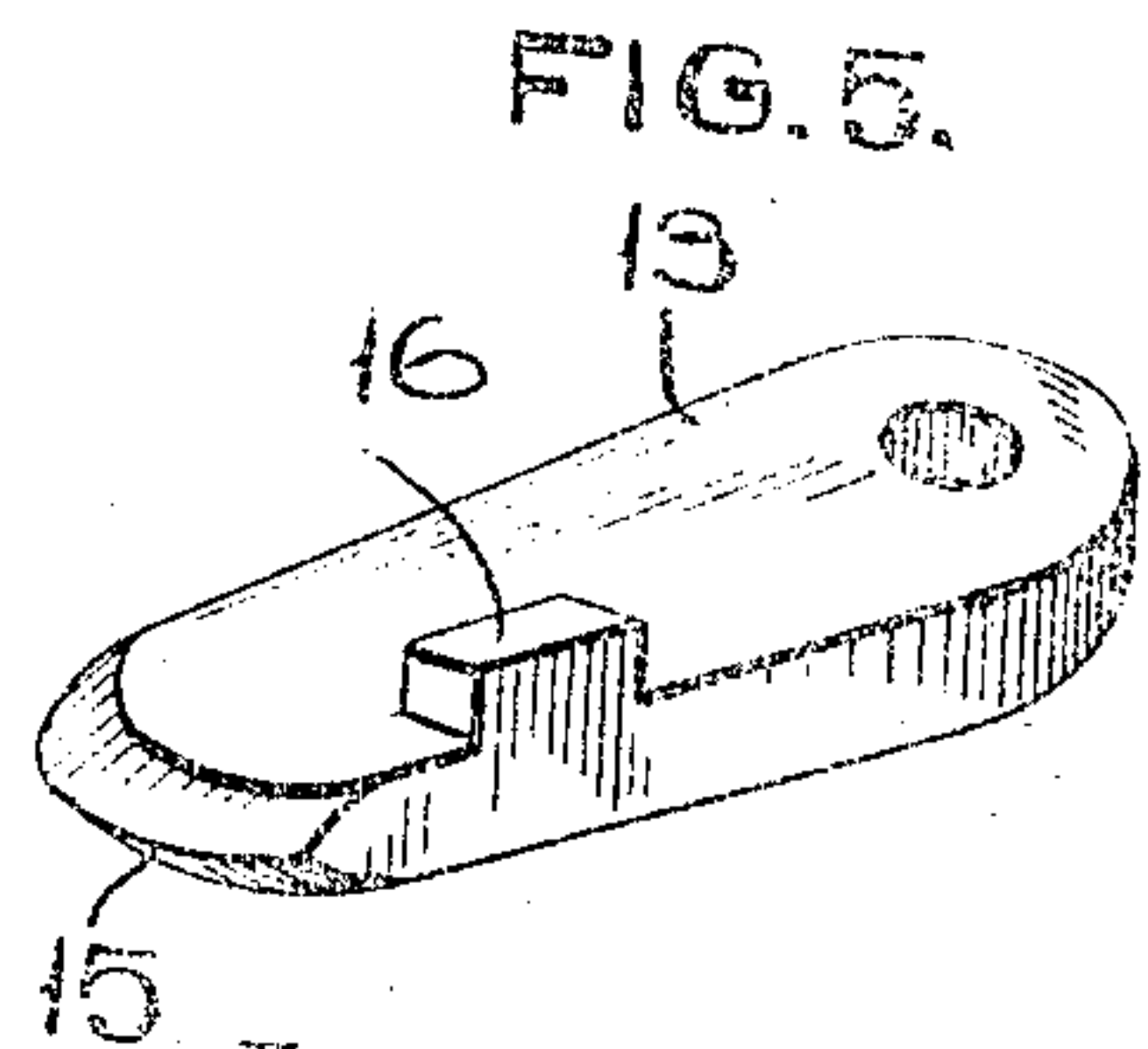
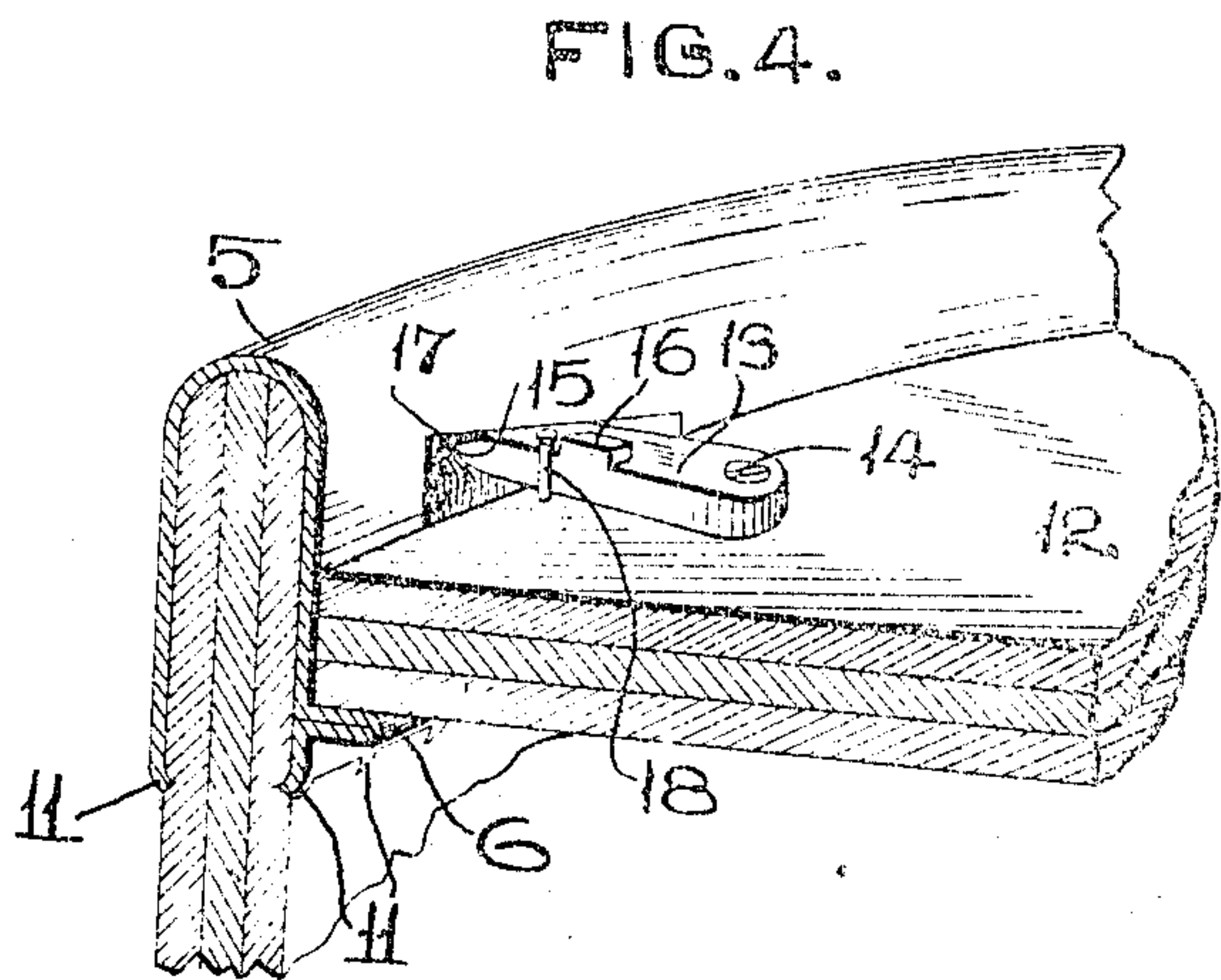
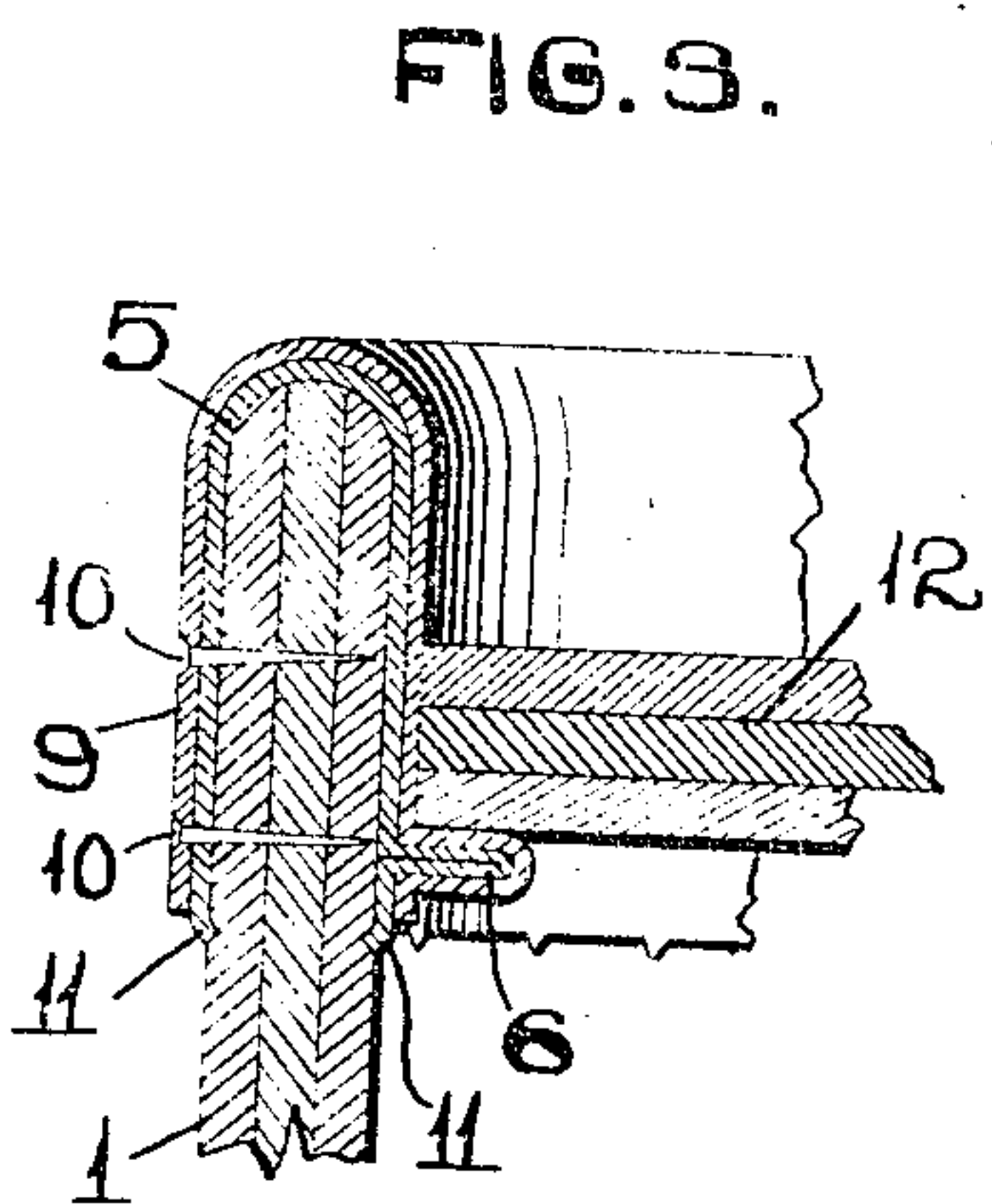
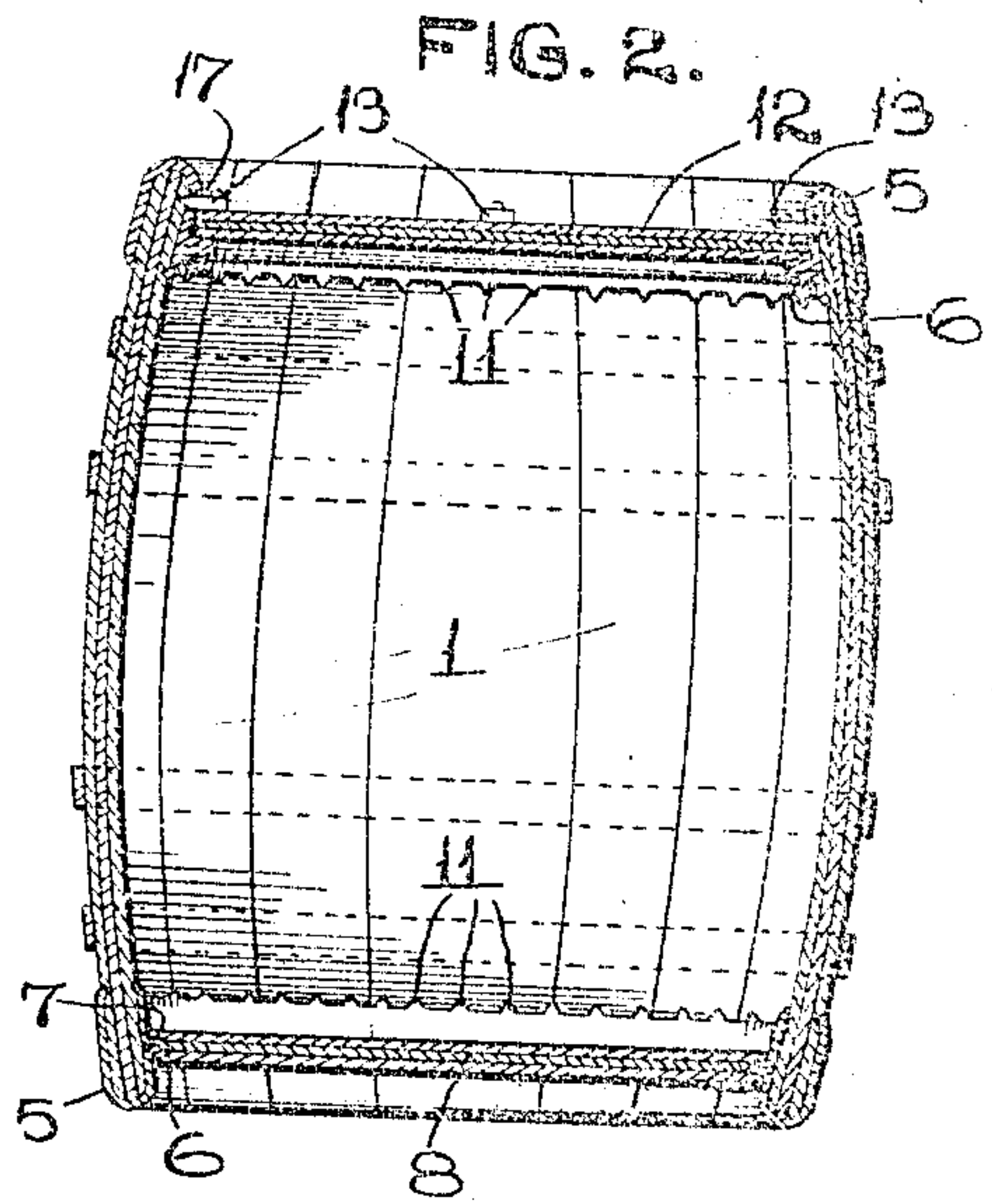
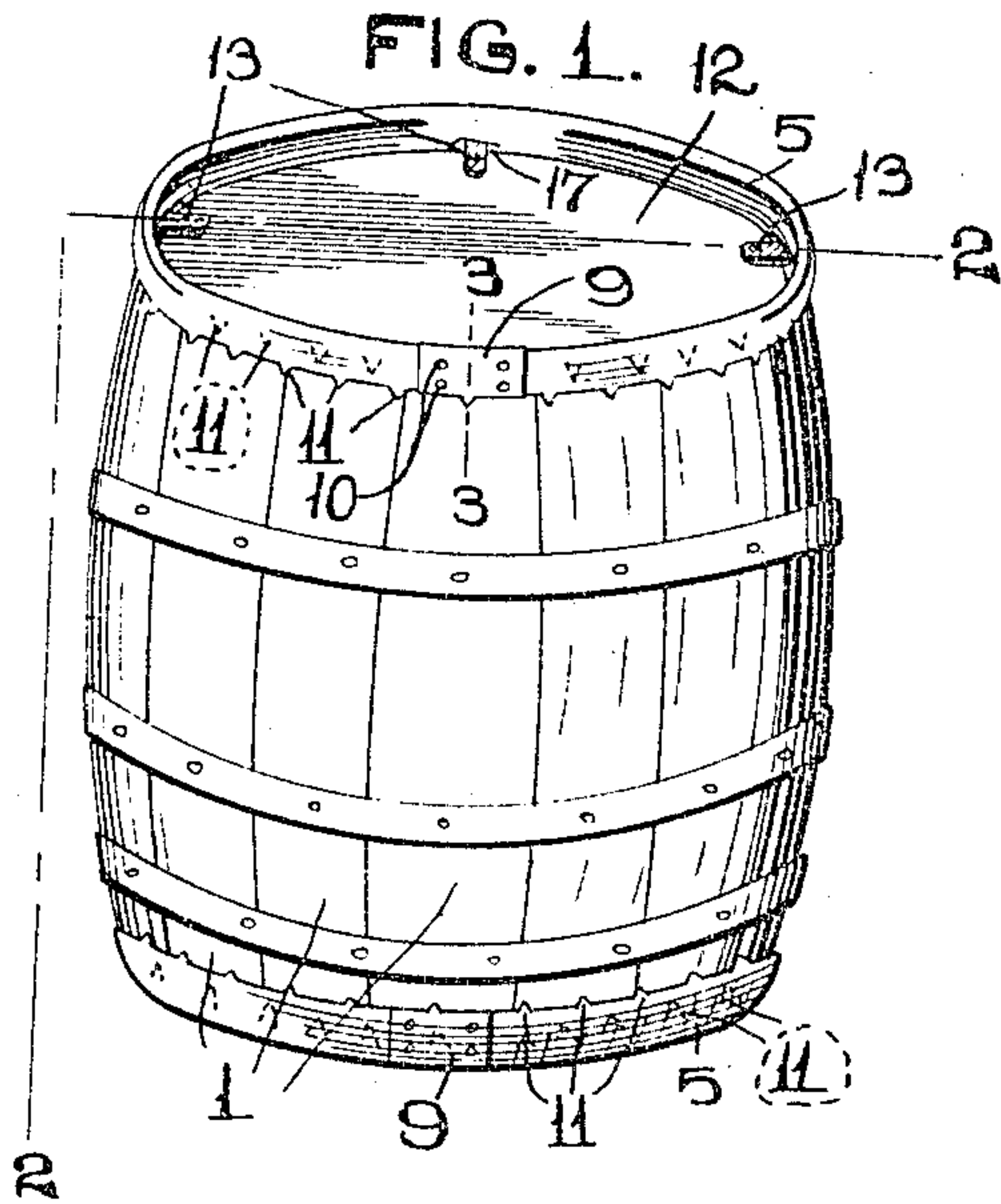
No. 825,878.

PATENTED JULY 10, 1906.

C. D. CRANDAL.

BARREL.

APPLICATION FILED JUNE 5, 1905.



ATTEST—  
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# UNITED STATES PATENT OFFICE.

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## BARREL.

No. 825,878.

Specification of Letters Patent.

Patented July 10, 1906.

Application filed June 5, 1905. Serial No. 263,852.

*To all whom it may concern:*

Be it known that I, CHAUNCEY D. CRANDAL, a citizen of the United States, and a resident of St. Louis, Missouri, have invented certain new and useful Improvements in Barrels, of which the following is a specification containing a full, clear, and exact description, reference being had to the accompanying drawings, forming a part hereof.

My invention relates to a barrel; and the object of my invention is to produce a strong, simple, inexpensive barrel, the parts of which may be readily assembled and taken apart.

My invention consists of simple means whereby the heads of the barrels and stave-sections thereof are rigidly united when set up in proper form.

My invention further consists in certain novel features of construction and arrangement of parts, that will be hereinafter more fully shown, described, and claimed.

In the drawings, Figure 1 is a perspective view of a barrel of my improved construction. Fig. 2 is a vertical section taken on the line 2 2 of Fig. 1. Fig. 3 is an enlarged detail section taken on the line 3 3 of Fig. 1. Fig. 4 is a detail perspective, partly in section, illustrating one of the devices for securing the heads in the barrel. Fig. 5 is a perspective view of one of the devices used for rigidly securing the heads in the barrel.

In the construction of my improved barrel the body is made up of a series of stave-sections 1, each section being formed of a series of layers of veneering properly secured together, preferably by glue, and all of the sections are similarly bent in order that said sections may be taken at random in setting up a barrel, it only being necessary to use the same number of sections for each barrel. The number of sections can be varied as desired.

The top and bottom edges of the body of the barrel formed of the stave-sections are provided with binders 5, which are preferably formed of sheet metal bent into U-shaped cross-section and in circular form to fit onto the ends of the body of the barrel.

The inner wall of each U-shaped binder 5 is provided with an inwardly-projecting flange 6, formed by bending the metal double, and this flange on the binder at the bottom of the barrel enters a corresponding groove 7, formed in the edge of the head 8, that is located in the bottom of said barrel. This head 8 is preferably formed of a series of ve-

neer-sections, and by reason of its being provided with the groove 7, which receives the flange 6 of the lower one of the binders, said head 8 is held fixed or in a non-removable position when the barrel is set up.

The meeting ends of the binders located on the ends of the barrel-body are provided with overlapping metallic strips 9, that are bent into the same form as are the binders, and small nails or suitable fastening devices, such as 10, pass through these strips 9 and into the stave-sections in order to rigidly retain the ends of the binders together.

The edges of the binders 5 are provided with integral V-shaped teeth 11, which when the binders are positioned on the ends of the barrel-body are driven into the stave-sections, and thus very rigidly retain said binders in position.

The removable head 12, that is located in the top of the barrel, comprises a circular disk similar to the head 8 and constructed of a series of veneer-sections, and said head 12 is positioned in the upper end of the barrel with its outer edge resting upon the flange 6 of the upper binder 5. (See Figs. 2 and 4.) This head 12 is provided adjacent its edge with a plurality of keepers 13 in the form of small plates, which are pivoted to the head by means of screws 14. The outer ends of these plates are knife-edged, as indicated by 15, and said keepers are also provided on one edge with lugs 16.

When the head 12 is located in a barrel, these keepers 13 are swung around onto the upper surface of the head, and after said head is properly positioned they are moved outwardly over the edge of said head, and their outer ends pass through slots 17, formed in the inner wall of the binder 5, that is located on the upper end of the barrel-body, and by means of a hammer or other tool the knife-edge 15 of the outer end of each keeper is driven into the wood beneath the aperture 17 in such a manner as to very rigidly retain the head in position in the upper end of the barrel. After these keepers have been all swung around into a locked position they are caused to retain said positions by small nails or tacks, such as 18, which are driven into the head immediately behind said keepers in order to prevent their swinging back, so as to allow the head to accidentally unseat from its position in the upper end of the barrel-body.

Where my improved barrel is knocked down for shipping or storage purposes, the



stave-sections of two, three, or even four barrels are nested within a single barrel, and thus much space is saved.

If desired, additional teeth 11 may be formed on the outer walls of the binders 5 by punching triangular teeth out of the material of said outer walls, as shown by dotted lines in Fig. 1. These additional teeth assist the teeth 11, formed on the edge of each binder, to retain said binder in position.

The binders 5 as contemplated by my invention may be also applied to barrels made up of ordinary staves and heads, it only being necessary that said staves be of the same size and shape and adapted to form barrels of uniform size.

I claim—

1. A knockdown barrel, constructed of a series of uniformly-sized veneered stave-sections forming the body of the barrel, metallic binders U-shaped in cross-section positioned upon the ends of the sections when set up in barrel form, there being flanges formed integral with the inner walls of each of the binders, heads arranged in the ends of the barrels, and their edges being seated on the flanges, there being slots formed in the binders above the top surface of the heads, and

keepers pivotally secured to the heads and adapted to pass through the slots in the binders, and engaged in the body of the barrel beneath the binders; substantially as specified. 30

2. A knockdown barrel, constructed with a series of uniformly-sized stave-sections adapted to form the body of the barrel, U-shaped metallic binders positioned upon the ends of the sections when set up in barrel form, there being flanges formed integral with the inner walls of each of the binders, teeth formed integral with the edges of the binders for engaging the stave-sections, a metallic clamp for engaging the meeting ends of each binder, heads located in the ends of the barrel and having their edges seated on the flanges of the binders, and a series of keepers pivotally mounted on one of said heads for detachably securing said head in position; substantially as specified. 40

In testimony whereof I have signed my name to this specification in presence of two subscribing witnesses. 50

CHAUNCEY D. CRANDAL.

Witnesses:

M. P. SMITH,

EDW. M. HARRINGTON.