

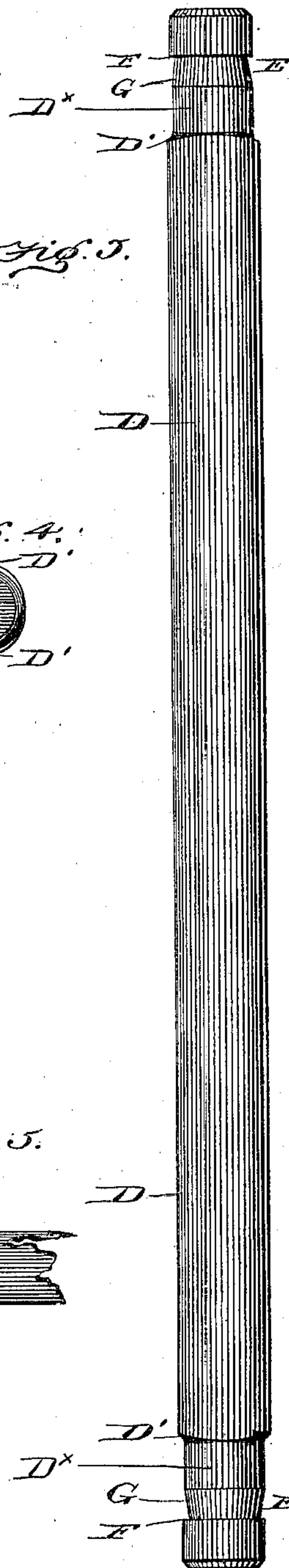
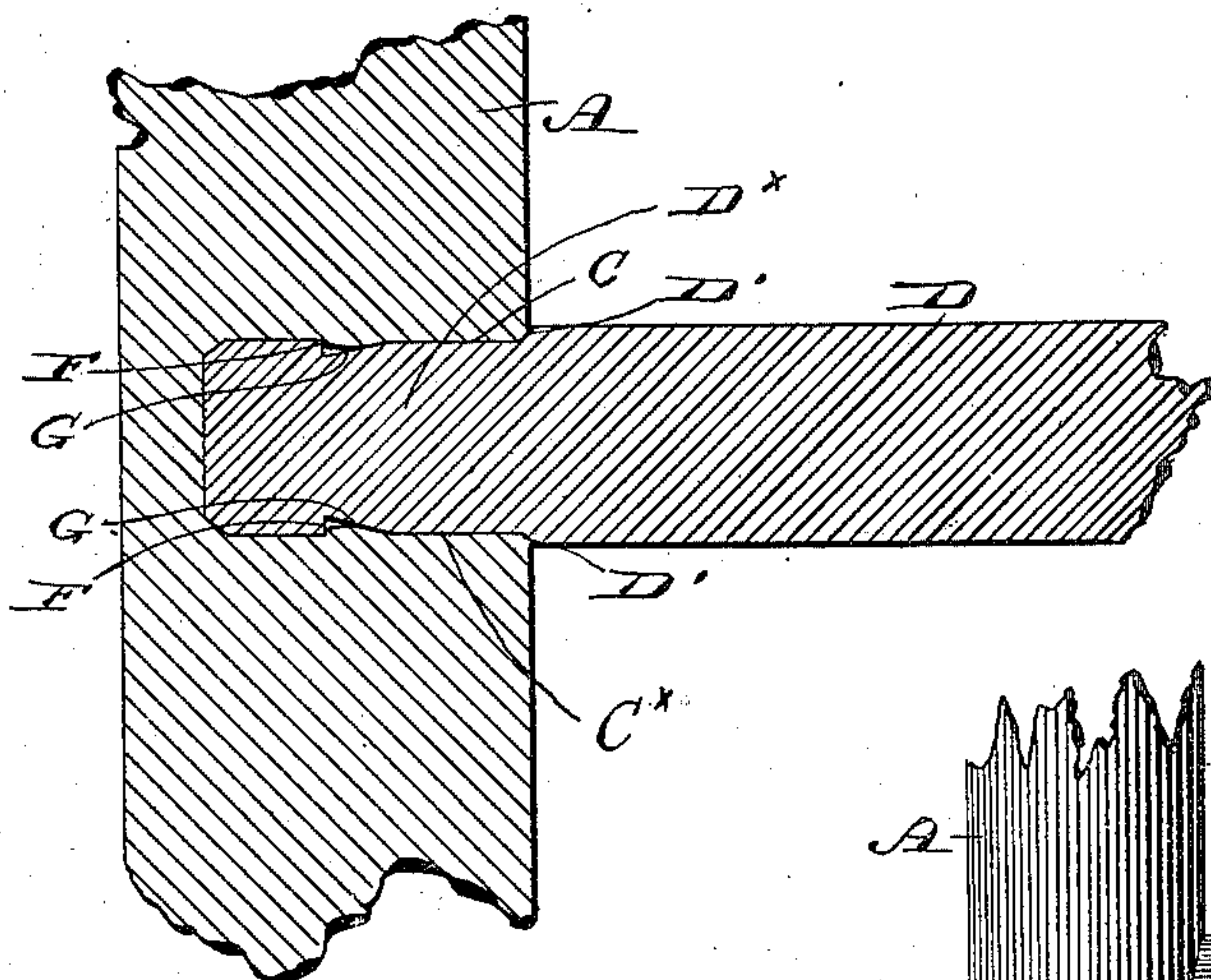
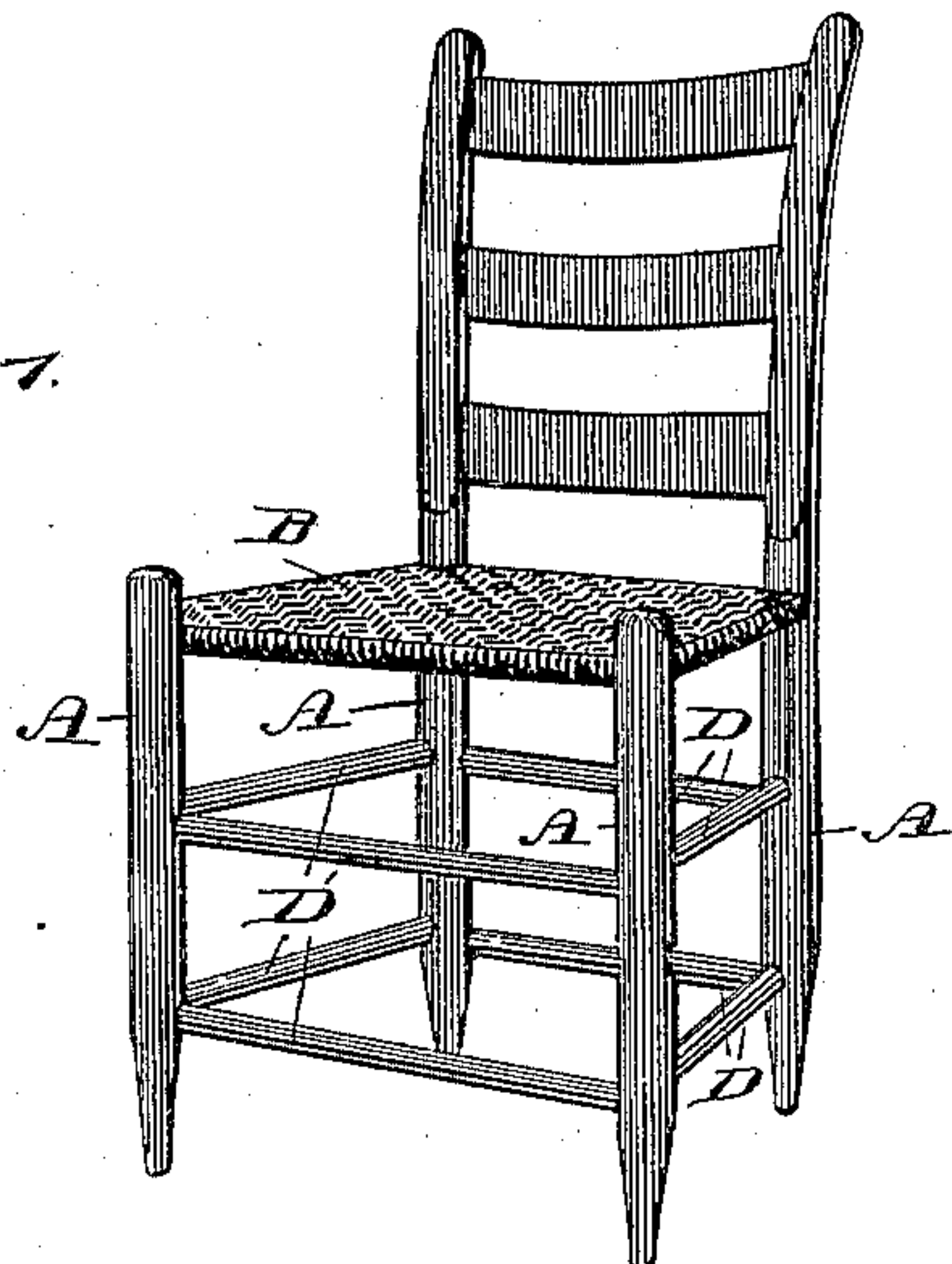
**No. 687,894.**

Patented Dec. 3, 1901.

H. MAYERS.  
CHAIR,

(Application filed Dec. 2, 1899.)

(No Model.)



**Inventor;**

Henry Mayers.

## Witnesses

Edwin B. Tower Jr.

Robert D. Lawson.

*By.*

Eckensdorf

**Attorney's**



# UNITED STATES PATENT OFFICE.

HENRY MAYERS, OF UNION CITY, TENNESSEE.

## CHAIR.

**SPECIFICATION** forming part of Letters Patent No. 687,894, dated December 3, 1901.

Original application filed September 16, 1899, Serial No. 730,731. Divided and this application filed December 2, 1899, Serial No. 738,989. (No model.)

*To all whom it may concern:*

Be it known that I, HENRY MAYERS, a citizen of the United States, residing at Union City, in the county of Obion and State of Tennessee, have invented certain new and useful Improvements in Chairs; and I do hereby declare the following to be a full, clear, and exact description of the invention, such as will enable others skilled in the art to which it appertains to make and use the same.

This invention relates to a new and useful improvement in chairs, being a division of an application filed by me on September 16, 1899, for an improvement in wood-turning machines, Serial No. 730,731.

Its object, among other things, is to provide a chair of strong, durable, and economical construction having rounds of peculiar form adapted to be secured to the legs thereof without the use of glue, as heretofore.

Heretofore in manufacturing chairs it has been necessary to have the wood of both the leg or post and the tenon in the condition known as "bone-dry." After glue has been placed upon the tenon the same is inserted in the socket of the post. As is well known, however, by constant use the glue releases its hold, causing the chairs to come apart and often breaking some of the parts.

My invention consists in providing tenons or rounds of peculiar construction whereby a cheap, strong, and durable chair may be quickly produced without the use of glue or similar material.

It also consists in the further novel constructions and combinations of parts hereinafter more fully described and claimed, and illustrated in the accompanying drawings, showing the preferred form of my invention, and in which—

Figure 1 is a perspective view of a chair. Fig. 2 is an enlarged section through a portion of a post or leg and a round or tenon, and Fig. 3 is a detail view of a round. Fig. 4 is a transverse section of the round, taken through the annular groove; and Fig. 5 is a detail elevation of the joint between the round and the leg.

Referring to said figures by letters of reference, A A are the legs or posts of the chair of any suitable construction and secured to a

seat B, as shown, and formed of unseasoned wood. The posts or legs A are provided as usual with suitable transverse horizontal sockets or recesses C, preferably cylindric or circular in cross-section, to receive rounds or rungs D, as generally practiced or adopted in connecting the legs or posts of chairs, &c., together. The rounds or rungs are each provided at each end with a tenon D<sup>x</sup> of less cross-section or radius throughout than the other portion of the round, therefore forming shoulders D' at the point defining the tenon from the round. The rounds between the shoulders or points D' are oval or elliptical, while the tenons D<sup>x</sup> are cylindric or circular, said shoulders each having an irregular surface and beveled, as disclosed by Fig. 3, to cause the same to closely or snugly fit or abut against the cylindric posts where they connect therewith, as is obvious is necessary to effect a tight or close joint between two such bodies thus brought together. The tenons D<sup>x</sup> are also each circumferentially or annularly notched or shouldered, as at E F, a short or suitable distance inward from their free ends or terminals to permit automatic interlocking action between the tenons and legs or posts during the contraction of the unseasoned wood of the legs or posts upon the seasoned wood of the tenons or rounds, as more fully disclosed presently. The cylindric tenons are also reduced circumferentially or in cross-section from the points G clear out to the shoulders D' at C<sup>x</sup>, but of not so great a reduction as from G to F, thus providing for additionally uniting the fibers of the wood of the posts and rounds.

In assembling the parts of the chair or article of furniture the tenons of the rounds are driven into the sockets of the legs or posts of unseasoned wood, the sockets being somewhat less in diameter than the greater-diametered portion of said tenons and the fiber of the legs or posts being in the direction of the length of the legs. Accordingly as the tenon of the round enters the socket of the post or leg under pressure the fibers of the wood of the post will bind upon the round at its end or that portion thereof of the greater diameter, as is obvious; but the fibers thereof subsequently coming opposite the annular recess or



notch of the tenon will enter said recess, which is readily permitted by reason of the unseasoned character of the fibers, and thus provide for the interlocking of the parts together.

5 Any subsequent shrinkage or contraction of the fibers would not be appreciable to effect their withdrawal from said recess.

While I have shown and described the chair as having merely the legs and rounds connected in this manner, I do not limit myself thereto, as the legs and the chair-seat may be connected together in a similar manner, as can most of the other parts of the chair.

By forming the round oval in cross-section and turning cylindrical ends thereon, I am enabled to conceal the entire cylindrical portion of the round within the leg, the curved shoulder D' of the round fitting closely to said leg around the socket therein, as shown.

20 In the foregoing description I have shown the preferred embodiment of my invention; but I do not limit myself thereto, as I am aware that modifications may be made therein without departing from the spirit or sacrificing the advantages thereof, and I therefore reserve the right to make such changes as fairly fall within the scope of my invention.

Having thus fully described my invention, what I claim, and desire to secure by Letters Patent, is—

1. A round for chairs, &c., having a solid tenon at its end, with a circumferential notch or reduction therein, in combination with a leg or post having a socket of somewhat less diameter than that of said tenon, substantially as set forth.

2. A round for chairs, &c., having a solid tenon at its end, with a circumferential notch or reduction, terminating at a shoulder at its inner end, in combination with a leg or post having a socket of somewhat less diameter than that of said tenon, substantially as set forth.

3. A round for chairs, &c., having a solid tenon at its end, with a circumferential notch or reduction terminating at an irregular and beveled shoulder, in combination with a leg or post having a socket of somewhat less diameter than that of said tenon, substantially as set forth.

4. A round for chairs, &c., having a solid tenon at its end, of a less radius or cross-section than the other or body portion of the

round and having a circumferential notch or reduction therein, in combination with a leg or post having a socket of less diameter than that of said tenon, substantially as set forth.

5. A round for chairs, &c., having a solid tenon at the end, with a circumferential notch or reduction therein and of less cross-sectional area or radius than the body portion of said round, said reduction terminating at an irregular and beveled shoulder, in combination with a leg or post having a socket of somewhat less diameter than that of said tenon, substantially as set forth.

6. A round for chairs, &c., having a solid tenon, with a circumferential notch or reduction therein, of less depth than the first-referred-to reduction and terminating at an irregular and beveled shoulder, in combination with a leg or post having a socket of somewhat less diameter than that of said tenon, substantially as set forth.

7. The herein-described process of making wood-joints, which consists of forming one member or section of the joint of unseasoned wood, with a socket of somewhat less diameter than that of the tenon of the other member, and forming the other member as a tenon with a recess therein, and forcing the tenon member into the socket member, substantially as set forth.

8. The herein-described process of making wood-joints, which consists of forming one member or section of the joint of unseasoned wood, with its fibers in the direction of its length and with a socket of somewhat less diameter than that of the tenon of the other section or member, and forming the other member as a tenon with a recess therein, and forcing the tenon member into the socket member.

9. A wood-joint comprising a member having a socket transverse to the line of the grain of the wood, a member having a solid tenon somewhat greater in diameter than said socket and having an annular groove near its end, said tenon member being seated in said socket, as and for the purpose specified.

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

HENRY MAYERS.

Witnesses:

HARRY FIELDS,  
BEN FISHER.