

No. 691,926.

Patented Jan. 28, 1902.

C. WOLCOTT & P. MAGILL.
METALLIC CULVERT.

(Application filed June 7, 1901.)

(No Model.)

Fig. 1.

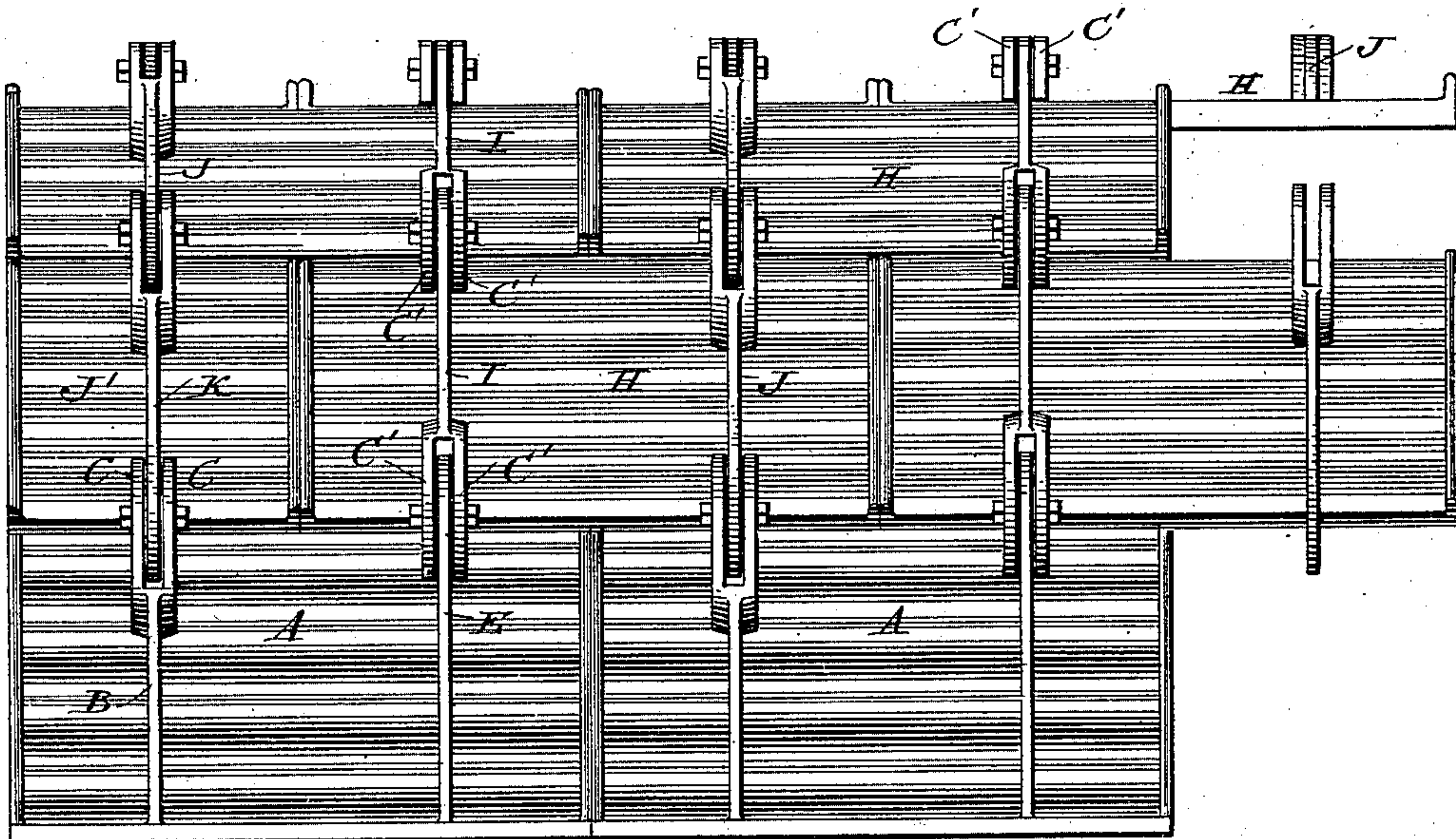


Fig. 3.

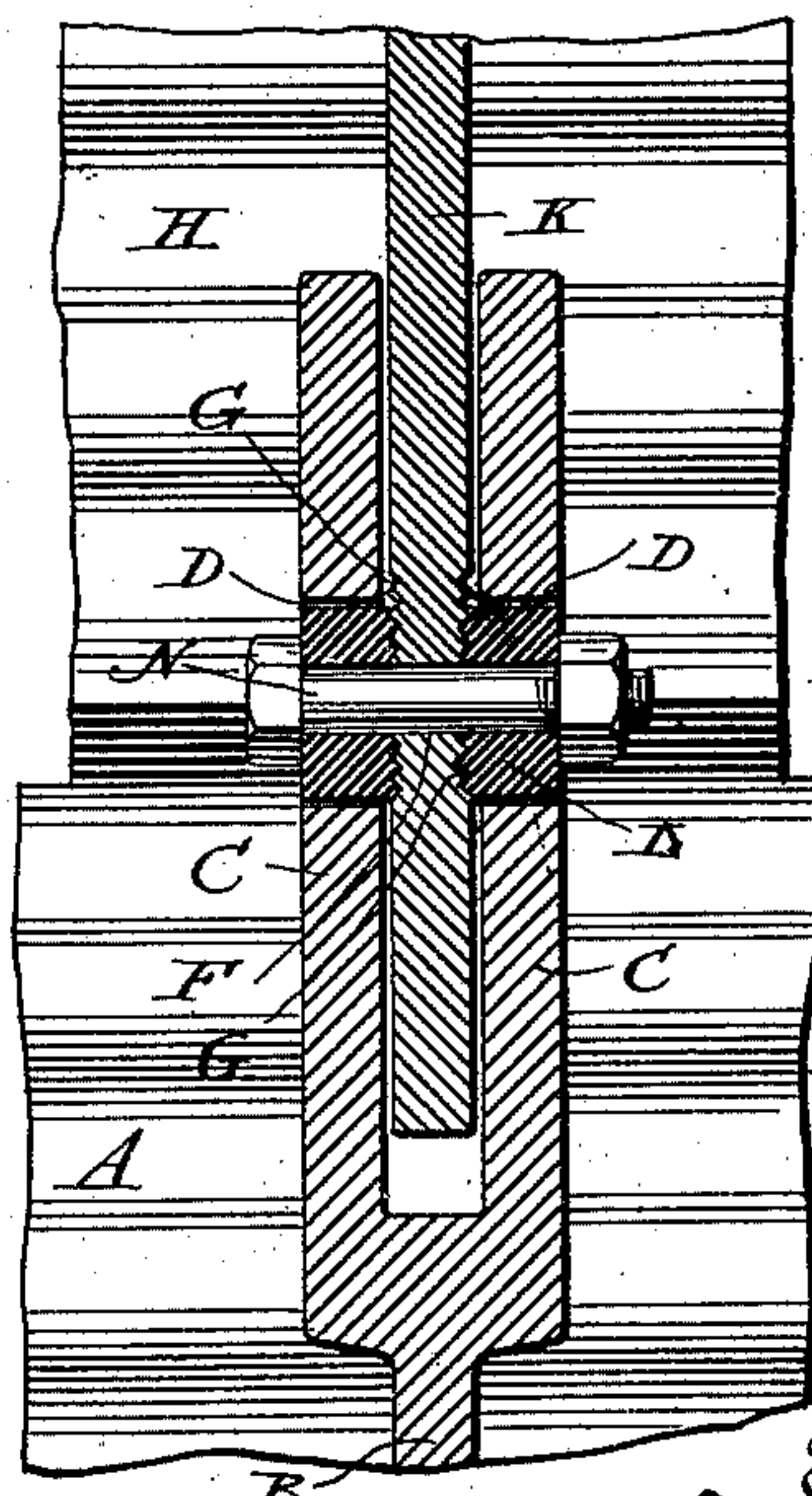
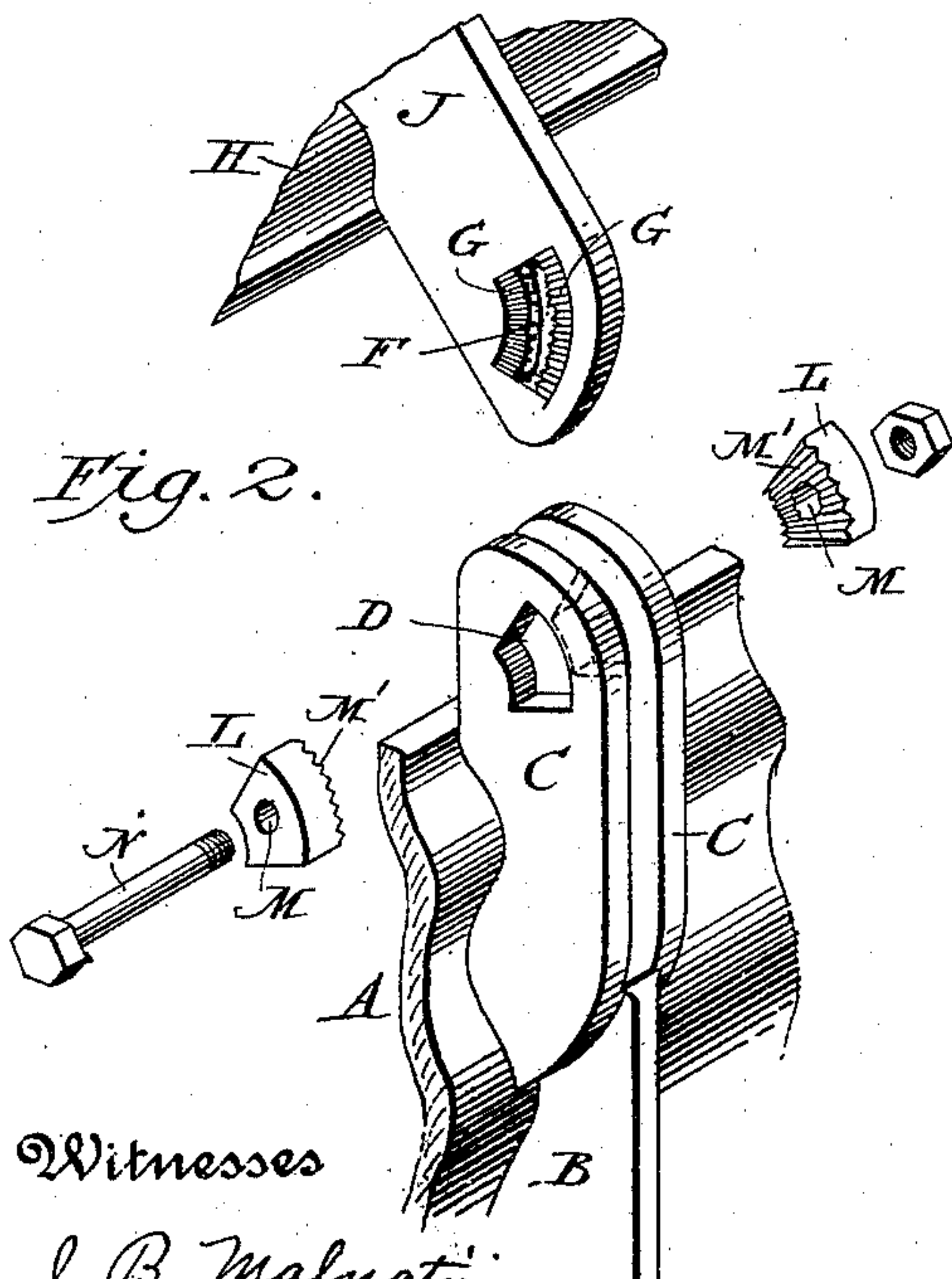


Fig. 2.



Witnesses
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UNITED STATES PATENT OFFICE.

CLARENCE WOLCOTT AND PATRICK MA GIRL, OF BLOOMINGTON, ILLINOIS.

METALLIC CULVERT.

SPECIFICATION forming part of Letters Patent No. 691,926, dated January 28, 1902.

Application filed June 7, 1901. Serial No. 63,628. (No model.)

To all whom it may concern:

Be it known that we, CLARENCE WOLCOTT and PATRICK MA GIRL, citizens of the United States, residing at Bloomington, in the county of McLean and State of Illinois, have invented certain new and useful Improvements in Metallic Culverts, of which the following is a specification.

Our present invention relates to improvements in metallic culverts, the construction and advantages of which will be hereinafter set forth, reference being had to the annexed drawings, wherein—

Figure 1 is a side elevation of a culvert constructed in accordance with our invention; Fig. 2, a perspective view of the locking and attaching means employed; and Fig. 3, a longitudinal sectional view of the two ribs or projecting arms, showing the parts assembled.

The present invention may in a sense be considered as an improvement upon the construction set forth in our pending application, filed March 28, 1901, Serial No. 53,284, wherein the sections which are employed in making the culvert are provided with rigid or integral overlapping arms or ribs, the ends of which interlock and may be fastened one to the other, if so desired. The present invention, besides including these features of construction, provides means whereby the angular relation of one section to the other may be varied, and when the parts are brought to position they may be locked.

Referring to the drawings, A indicates the foundation or base members, provided with an integrally-formed rib or arm B, the outer end of which is bifurcated, forming arms C C, which project beyond the upper edges of the body proper. Each arm is formed with a polygonal opening D. (See Fig. 2.) There is also formed upon the member A a second rib E, which likewise projects beyond the edge of the body. In said projecting end there is provided a curved slot or opening F and upon each face of the arm adjacent to the slot and to each side thereof is formed a series of teeth or serrations G.

H indicates one of the body-sections of the culvert, which is likewise provided with two ribs I and J, the ends of which project beyond the edges of the section. The lower end of rib I is bifurcated to form arms C' C', simi-

lar to arms C and likewise provided with polygonal openings. The upper end of the rib is provided with a curved slot or opening with teeth adjacent thereto. The construction of rib J is just the reverse.

To break joint throughout the structure, a second series of body-sections J, is employed, the sections being of half the length of the others and having simply one rib K, one end of which is bifurcated and the other formed with the slot and teeth.

The parts are assembled as in Fig. 1, the single projecting arms passing in between the arms C C and C' C'. The parts thus assembled would stand without the necessity of any locking device; but for various reasons it is deemed expedient to securely fasten the parts together. It is also expedient when assembling the sections to employ some locking device to hold the parts in position. To this end we employ the locking device illustrated in Figs. 2 and 3.

Blocks or anchors L of the same contour as the opening D are employed, said blocks having a bolt-hole M and provided with teeth M' on one face. When the sections are assembled and brought to their proper angular position, a block or anchor is placed in each of the openings in the arms C or C', as the case may be, and a bolt N is passed through said blocks and the curved slot F. As the parts are brought to position and the nut of the bolt tightened the teeth of the block are brought into close engagement with the teeth or serrations G on the arm which is intermediate the arms C.

By reason of the blocks and the openings into which they pass being of the same angular form the blocks are prevented from turning, and consequently the parts are held rigid and the various sections maintained in their exact and desired relation.

It will be readily seen that by slackening the bolts one section may be turned relatively to the other, the blocks or anchors moving back out of the way of the teeth G, the curved slot F permitting the parts to turn without the necessity of withdrawing the bolts.

It will of course be understood that the ribs of necessity do not have to extend across the entire width of the sections so long as the projecting ends are provided.

Having thus described our invention, what we claim is—

1. In a culvert, the combination of a series of sections; integrally-formed ribs or arms extending from each section and overlapping the adjacent section; and adjustable means for locking said overlapping arms together.
2. In a culvert, the combination of a series of sections; integrally-formed ribs or arms extending out from each section and overlapping the adjacent section and its arm; and an adjustable locking means carried by one arm for locking the two overlapping arms together.
3. In a culvert, the combination of a series of sections; integrally-formed ribs or arms extending out from each section and overlapping the adjacent section and its arms; an adjustable locking device carried by one arm to engage the other arm, said device being movable in a direction at right angles to the axis of the arm; and means for maintaining the device in position.
4. In a culvert, the combination of a series of sections; integrally-formed ribs or arms extending out therefrom and overlapping the adjacent section and its arms; a block mounted in an opening in one of said arms; teeth formed upon the block, to engage similar teeth formed upon the adjacent arm; and a bolt for holding the parts in engagement.

5. In a culvert, the combination of a series of sections; integrally-formed ribs or arms extending out therefrom and overlapping the arms of the adjacent sections; a polygonal block mounted in an opening of similar contour formed in one arm; teeth formed upon said block and the opposing face of the adjacent arm; and a bolt passing through said block and a curved slot or opening formed in said adjacent arm.

6. In a culvert, the combination of a series of sections; integrally-formed arms extending out therefrom and overlapping the adjacent sections, one arm on each side of each section being bifurcated and embracing a single arm on the adjacent section; a pair of polygonal blocks mounted in openings of similar contour formed in said bifurcated arms, said blocks being provided with teeth upon their inner faces, to engage teeth formed upon the side faces of the single arm; and a bolt passing through said blocks and a curved slot formed in said single member.

In testimony whereof we have signed our names to this specification in the presence of two subscribing witnesses.

CLARENCE WOLCOTT.
PATRICK MA GIRL.

Witnesses:

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