(No Model.)

I. SWOPE.

BARREL.

No. 285,320. Patented Sept. 18, 1883.

Fig. 1.

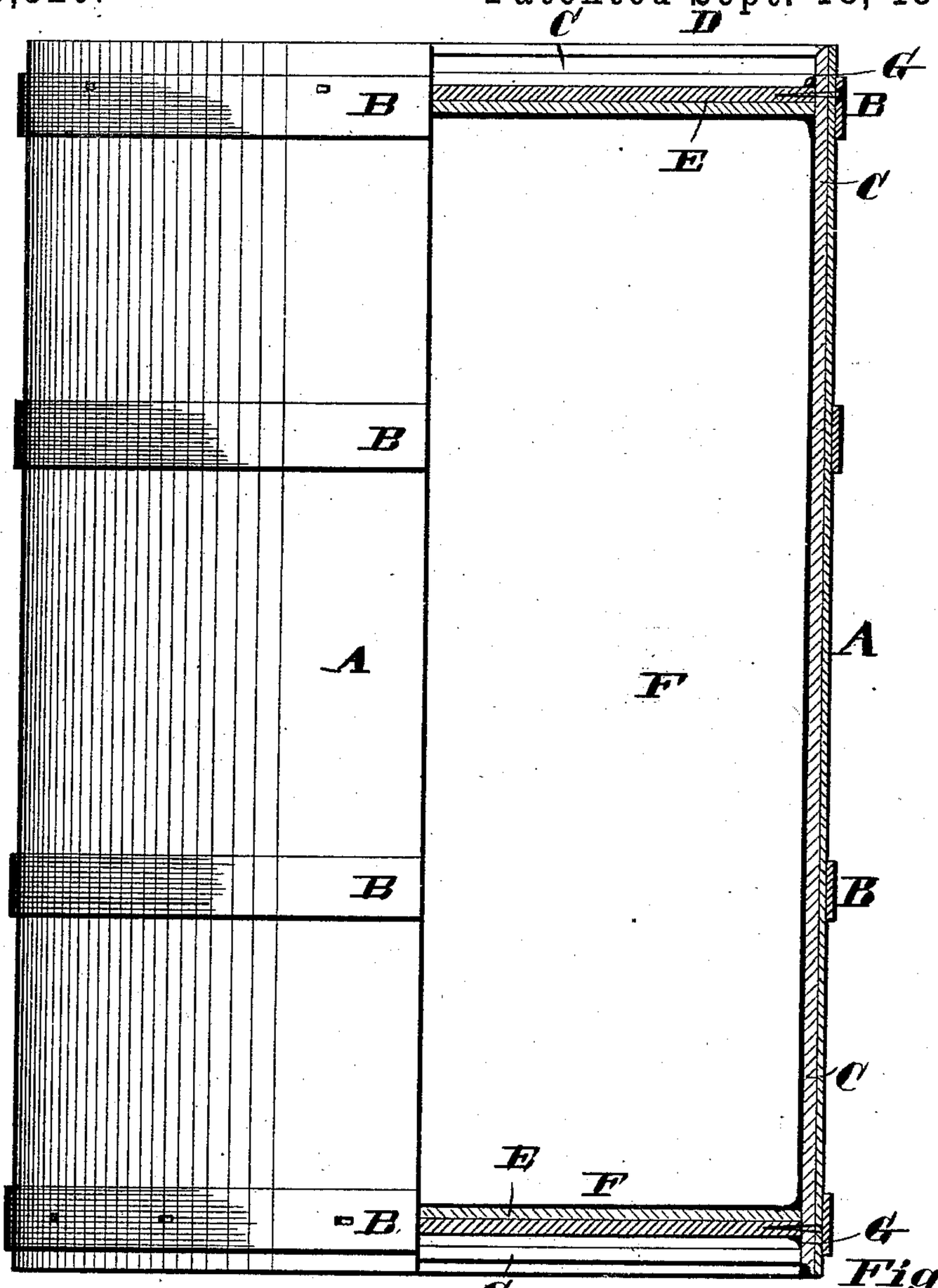


Fig. 2.

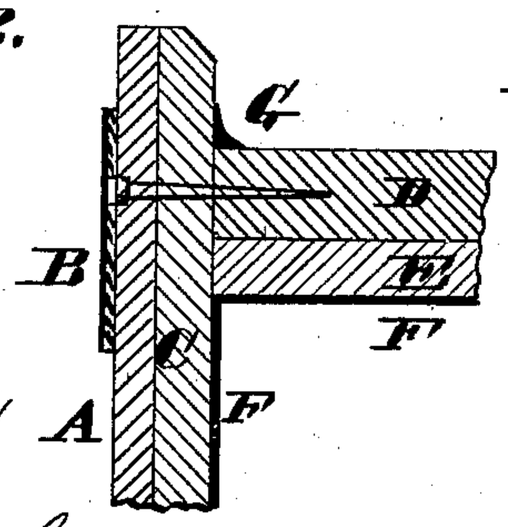
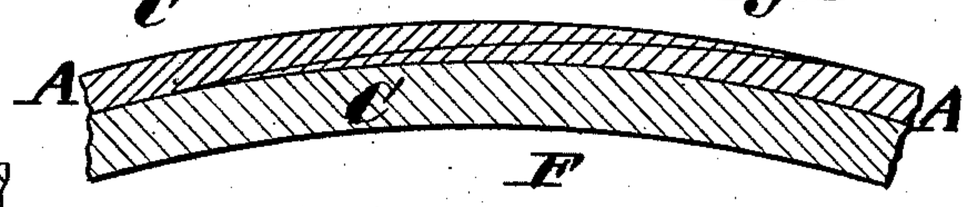


Fig. 3.



Attest:
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By Knight Bros.
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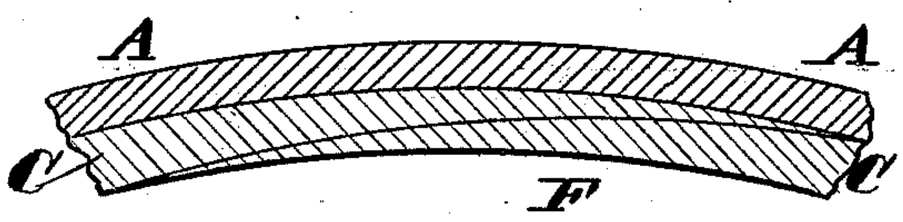
Fig. 4.



UNITED STATES PATENT OFFICE.

ISAAC SWOPE, OF ST. LOUIS, MISSOURI.

BARREL.

SPECIFICATION forming part of Letters Patent No. 285,320, dated September 18, 1883.

Application filed July 12, 1883. (No model.)

To all whom it may concern:

Be it known that I, ISAAC SWOPE, of the city of St. Louis, in the State of Missouri, have invented a certain new and useful Improvement in Barrels, of which the following is a full, clear, and exact description, reference being had to the accompanying drawings, forming part of this specification.

Reference is made to the claims for statement of invention.

Figure 1 shows one of my barrels, one-half in side view and one-half in diametric section. Fig. 2 is an enlarged detail section, showing the connection of head and sides. Fig. 3 is a detail horizontal section, showing the joint of the veneer; and Fig. 4 is a similar section, showing the joint of the straw-board.

The barrel has an outer cylinder consisting of a single piece of veneer bent into a cylindrical form, and having a lap-joint that may be made smooth by skiving the edges. (See Fig. 3.) This cylinder A is embraced by hoops B, of any suitable number and size. Within the veneer shell A is a cylinder, C, of "straw-board," whose outside fits the inside of the shell A, forming a heavy lining to the same, and formed with a lap-joint, that may be of the character shown in Fig. 4, the edges skived to make a smooth joint without any projecting edge; or the joints of the outer cylinder, A, and inner one, B, may be made by simply lapping the edges. The joints may be glued or pasted or secured by any adhesive substance, if desired. The heads are formed of an outer part, D, of wood, and an inner or lining piece of straw-board, (marked E.) These are both made round, their diameter being such that they tightly fit the inside of the cylinder C. The heads are forced into the ends of the cylinder a proper distance, and secured by nails driven through from the outside into the edge of the part D. The barrel is now nearly tight, but to render it perfectly liquid-tight I coat the whole interior. I do not confine myself to any particular water or liquid proof coating, but will describe one that will be found effective, namely: alcohol, one gallon; glycerine, one quart; gum-arabic, two quarts; shellac, seven ounces; and slaked lime, seven table-spoonfuls. The solids are dissolved in the liquids, and the interior of the barrel coated with it, which not only renders the barrel water-tight, but serves to strengthen it. When the barrel is packed with any dry material, it preserves its contents from dampness, whatever the condition of the air may be, and even if the barrel should be immersed in water. This interior coating is marked F.

G is an annular strip of cement or thick varnish, with which is filled the corner between the head and the chine H. This strip serves to support the head against interior pressure, and to insure a tight-joint between the head and the cylindrical part A C of the barrel.

The barrel is much lighter than a tight barrel constructed wholly of wood, and is in fact much lighter as well as stronger than an ordinary flour-barrel when made of equal capacity. When made to contain articles that do not require the barrel to be water-tight, the waterproofing F G may be dispensed with.

The veneer, of which the outer cylinder, A, is composed, is the well-known material made by cutting a round log of wood into a ribbon by the continuous rotation of the log against a knife extending its whole length.

Either or both of the cylinders A C may be made of more than a single ply of the material, and thus the strength of the barrel increased.

I claim—

1. A barrel in which are combined an outer case, A, of veneer, an inner cylinder of straw-board, and heads consisting each of an outer sheet of wood, D, and an inner sheet, E, of straw-board.

2. A barrel consisting of the following combination of parts, viz: outer wooden cylinder, A, inner straw-board cylinder, C, heads D E, and the water-proof coat F, substantially as set forth.

3. In a barrel, the combination of wood cylinder A, straw-board cylinder C, hoops B, water-proof coat F, heads D E, and sealing-strip G, substantially as set forth.

Witness my hand this 7th day of July, 1883.

ISAAC SWOPE.

Witnesses:
SAML. KNIGHT,
MAX COHEN.