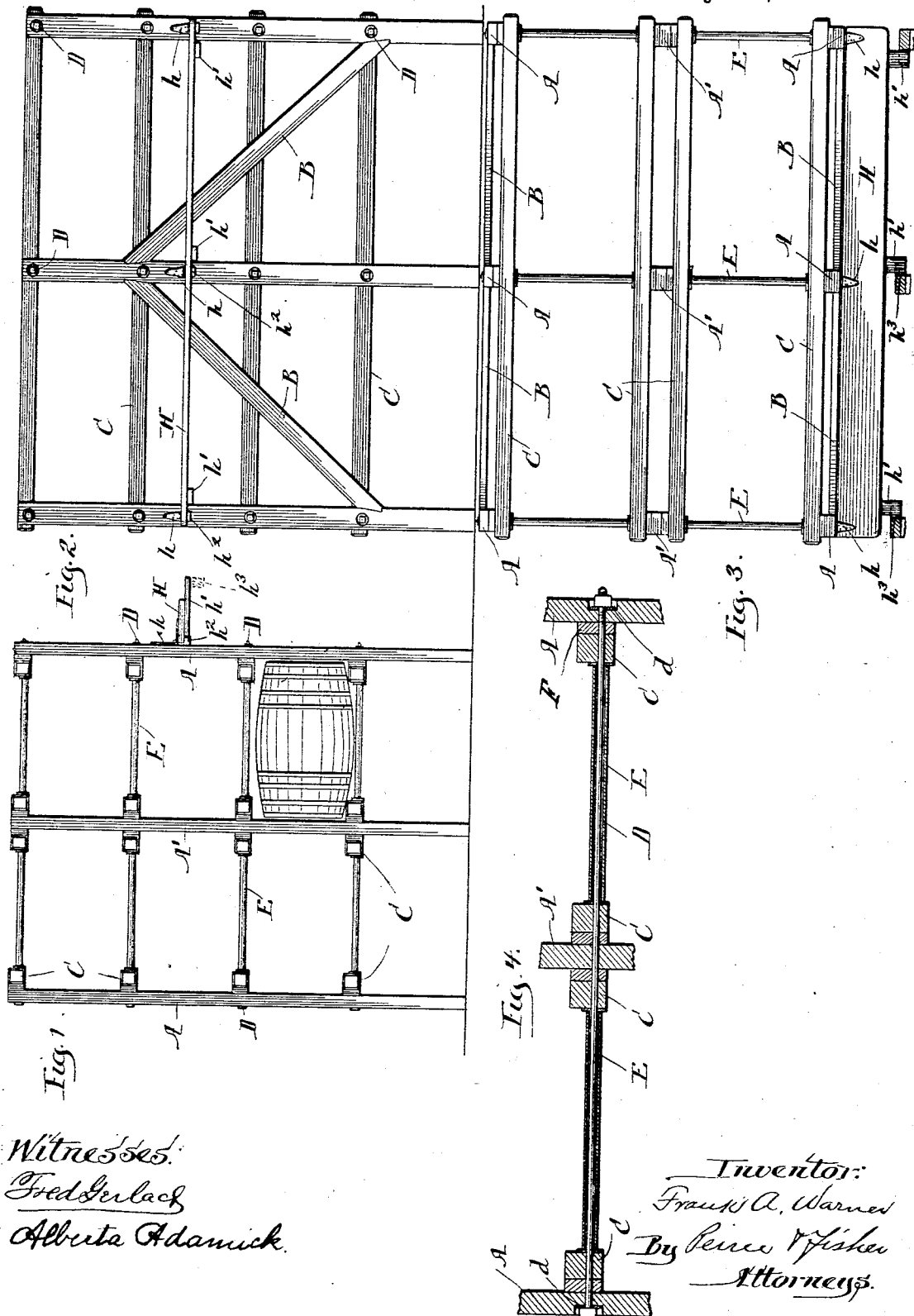


F. A. WARNER.
RACK FOR BARRELS OR CASKS.

Patented May 22, 1894.



UNITED STATES PATENT OFFICE.

FRANK A. WARNER, OF CHICAGO, ILLINOIS, ASSIGNOR OF TWO-THIRDS TO JOHN C. FOX, OF SAME PLACE, AND PERCY THOMPSON, OF KANSAS CITY, MISSOURI.

RACK FOR BARRELS OR CASKS.

SPECIFICATION forming part of Letters Patent No. 520,098, dated May 22, 1894.

Application filed February 2, 1894. Serial No. 498,841. (No model.)

To all whom it may concern:

Be it known that I, FRANK A. WARNER, a citizen of the United States, residing at Chicago, county of Cook, and State of Illinois, have invented certain new and useful Improvements in Racks for Barrels or Casks, of which I do declare the following to be a full, clear, and exact description, reference being had to the accompanying drawings, forming part of this specification.

My invention consists in the novel construction hereinafter described, illustrated in the accompanying drawings and particularly defined in the claim at the end of this specification.

Figure 1 is a front view of the rack embodying my invention. Fig. 2 is a side view of said rack. Fig. 3 is a plan view. Fig. 4 is an enlarged view in vertical section through portions of the upright bars, through the stringers, the sleeves extending between the stringers and the space-blocks.

A designates a series of up-right posts at each side of my improved rack and A' denotes the central up-rights, which will be used when the rack is formed for double rows of casks or barrels as illustrated in the accompanying drawings. The up-rights A at each side of the rack are preferably braced by the diagonal beams B suitably secured to the up-rights as shown in Fig. 2 of the drawings. Between the up-rights A and A' and from end to end of the rack extend the stringers C whereon the barrels or casks will rest, these stringers C being supported by tie-rods D that extend through the stringers C and through the up-rights A and A' from side to side of the rack, and by preference the tie-rods are furnished with headed ends and with threaded ends to receive the nuts whereby the rods are caused to firmly bind the parts together. Preferably also suitable washers d will be interposed between the up-rights and the heads and nuts of the tie-rods in order to avoid wear of the metal upon the wooden up-rights. The tie-rods D pass also through spacing sleeves E that are interposed between each pair of stringers C, suitable washers being placed at the end of the spacing sleeves to prevent the metal sleeves from wearing the sides of the stringers and the tie-rods D pass

also through the space blocks F that are interposed between the stringers C and the up-rights A and thus serve to hold the stringers at such distance from the up-rights as to afford bearings or supports for the casks at proper distances from their ends, and to permit also casks or barrels of different sizes to be stored in the rack. It will be observed that the tie-rods D pass through the stringers C at such point below the upper edges of the stringers as not only to afford a stout support for the stringers but also bring the sleeves E so far below the edges of the stringers as to prevent the bilge of the barrels or casks from bearing against the sleeves E.

From the foregoing description it will be seen that the barrels or casks may be stored in rows upon the superposed stringers as shown in the drawings and the individual rows of barrels or casks will be sustained by the up-rights A and A' and not by the rows beneath them. So also it will be seen that when it is desired to remove from the rack any cask, this can be readily done by withdrawing such cask and without the necessity of disturbing the superposed or subjacent rows. It is manifest that my improved rack can be quickly set up at any part of the store-house and when set up affords a firm support for the barrels or casks sustained thereby and plainly also the stringers C may be arranged above each other in such number as to utilize to the fullest extent the capacity of the store-room in which the rack is placed. It is manifest also that by varying the length of the spacing sleeves E the racks can be made broader or narrower as desired. So also the precise details of construction above set out can be varied without departing from the spirit of my invention. In practice it is customary to raise each barrel or cask by means of a portable elevator until it is brought opposite the particular stringers C by which it is to be sustained after which it can be rolled onto these stringers, and to its proper place.

In order to enable the attendant to readily reach the upper rows of the barrels or casks I prefer to provide at the side of the rack a platform H extending from end to end of the rack, and preferably this platform is connected to the up-rights A by suitable hinges

h so that it can be readily turned up and out of the way when not in use. The platform H may be supported by rest blocks h^2 secured to up-rights A when turned down and is provided upon its under side with braces or cleats h' , the ends of which may be extended if desired to engage with blocks h^3 fastened at convenient points upon uprights of adjacent racks.

10 By my invention I have succeeded in producing a rack that can be readily set up at any part of a store-room, and can be easily taken down and if required, packed into small compass for storage or shipment.

15 In the construction of fire proof warehouses, in which there are no wooden beams employed about the floors or ceilings my rack will be found to be a special advantage because it stands entirely independent of the
20 ceilings or side walls and can be erected at

any desired point without attachment to the walls.

Having thus described the invention, what I claim as new, and desire to secure by Letters Patent, is—

A rack for barrels or casks comprising the vertical side and central posts A and A', the double rows of superposed stringers C between said side and central posts, the tie rods D passing through said side and central posts A and A' and through said stringers C, said tie rods being provided between each row of stringers C with the spacing sleeves E whereby rigidity is given to the rack and the stringers are held at proper distance apart.

FRANK A. WARNER.

Witnesses:

GEO. P. FISHER, Jr.,

FRED GERLACH.