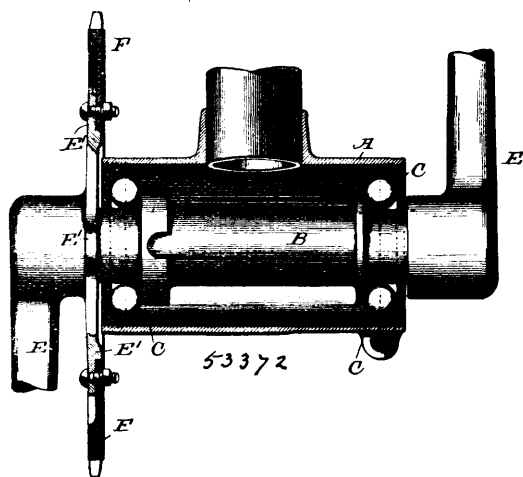
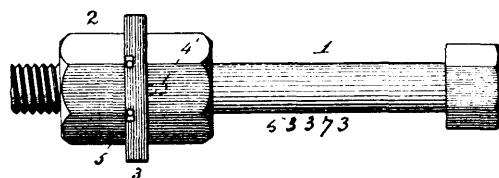


threaded ends engaging corresponding threaded enlargements of the sockets in the bosses of the cranks, whereby the cranks are drawn



toward each other and bound on the shaft, substantially as and for the purpose described. 3rd. The combination of the barrel, the rotatable sleeve mounted therein, projecting beyond the ends thereof; oppositely threaded on its projecting ends, and the shaft fitted in the sleeve and projecting beyond the ends thereof; with the cranks fitted on the ends of the shaft but not rotatable thereon; having internally threaded sockets in their bosses engaging the ends of the sleeve whereby the cranks are bound together and upon the shaft, substantially as described.

No. 53,373. Nut-Lock. (*Arrête-écrou.*)



John E. Ward, Henry S. Butts, Waverly, New York, and Fred. W. Kelsey, Orange, New Jersey, all in the U.S.A., 2nd September, 1896; 6 years. (Filed 6th August, 1896.)

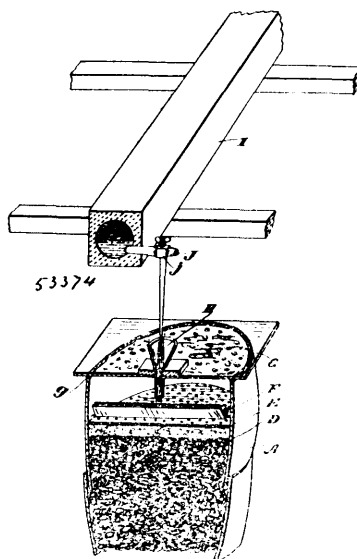
Claim.—1st. In a nut-lock, the combination with a bolt and nut of ordinary construction, of a washer having a horse-shoe shaped groove in its outer face, and a wire nail adapted to be driven into said groove and afterwards upset for the purpose of preventing the turning of said nut. 2nd. In a nut-lock, the combination with a bolt and nut of ordinary construction, of a washer having a groove in its outer face, whose outer ends are on the same edge of said washer and a trip of wire adapted to be driven into said groove and afterwards upset for the purpose of preventing the turning of said nut. 3rd. In a nut-lock, the combination with a bolt and nut of ordinary construction, of a washer having a horse-shoe shaped groove in its outer face whose ends lie at an angle to the outer edges of said nut forming wedge-shaped openings between the edge of said groove and the edge of said nut, and a strip of wire adapted to be driven into said groove and afterwards having its ends upset and forced into said wedge-shaped openings for preventing the turning of said nut.

No. 53,374. Art of and Apparatus for Making Vinegar. (*Art et appareil pour faire du vinaigre.*)

Anton Haaz, Kingston, Ontario, Canada, 2nd September, 1896; 6 years. (Filed 12th June, 1896.)

Claim.—1st. The method for preventing the escape of the vapour or gases when converting spirits or other fluids into vinegar, consisting, when heating such fluid within an enclosed vessel, of condensing the vapour arising from such fluid by a heat non-conducting and non-corrosive surface capable of shedding the drops as they accumulate on such surface, as and for the purpose specified. 2nd. In a vinegar-producing plant, the combination with the generator and heat-producing means in the same, of an imperforate top plate having the lower surface non-corrosive and practically a non-conductor of heat and capable of condensing the vapour as it arises in the generator and shedding such vapour, as and for the purpose specified. 3rd. In a vinegar-producing plant, the combination with the generator and heat-producing means in the same, of an imperforate top plate having the lower surface non-corrosive and practically a non-conductor of heat and capable of condensing the vapour as it arises in the generator and shedding such vapour, and a non-cor-

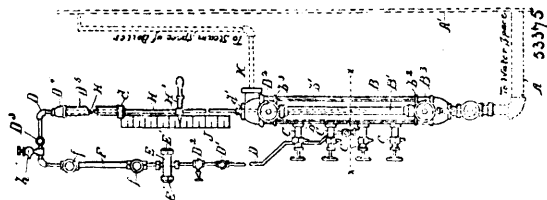
rosive packing designed to be held on the top edge of the generator and form an even rest for the plate, as and for the purpose specified.



4th. In a vinegar-producing plant, the combination with the generator and heat-producing means in the same, of an imperforate top plate having the lower surface non-corrosive and practically a non-conductor of heat and capable of condensing the vapour as it arises in the generator and shedding such vapour, a funnel in the centre of such plate and a trough and lead into the funnel from such trough, as and for the purpose specified.

No. 53,375. Liquid Level Indicator.

(*Indicateur à niveau de liquide.*)



Henry A. McGrory, Detroit, Michigan, U.S.A., 2nd September, 1896; 6 years. (Filed 15th August, 1893.)

Claim.—1st. In an indicator system for steam boilers, etc., the combination, with a reservoir, of a pipe communicating therewith and led to a distance therefrom, and indicator in said pipe distant from the reservoir, said pipe having a return communication with the reservoir, and the extremities of said pipe normally communicating with said reservoir below the water line to provide for circulation through said pipe, substantially as described. 2nd. In a liquid level indicator, the combination with a reservoir of a pipe communicating therewith and led to a distance therefrom, an indicator in said pipe distant from said reservoir, said pipe having a return communication with said reservoir to provide for circulation therethrough. 3rd. In a liquid level indicator, the combination with a reservoir or boiler, of a pipe communicating therewith and led to a distance therefrom, of an indicator in said pipe distant from said boiler, said pipe having a return communication with said boiler, a movable section in said return pipe, and means for depressing the end of said movable section below the water level of the boiler. 4th. In a water indicator system for steam boilers, the combination, with a water pipe to communicate with the boiler, of a water column communicating with said pipe, a steam pipe communicating with the boiler and with the water column, a series of gauge cocks C, communicating with said column, and an additional water pipe provided with a water indicator and communicating with said column, said latter pipe having a return communication with the water column, the extremities of said additional pipe normally communicating with said column below the water line, substantially as described. 5th. In a water indicator system, for steam boilers, the combination with a water pipe leading from the boiler, of a water column communicating with said pipe, a steam pipe communicating with the boiler and water column, an additional water pipe leading from said column and having a return communication therewith, and a water indicator located in said latter pipe, the extremities of said additional pipe normally communicating with the water