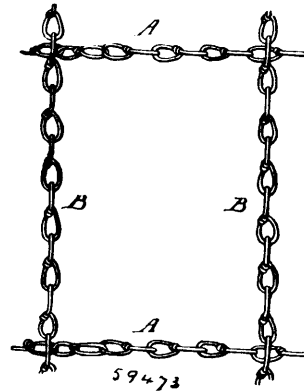


the syphon, a float in the tank, means operated by the float for cutting off the supply of unfiltered liquid, a second tank beneath the filter bed, an overflow from the first tank leading into the second, a float in the second tank, means operated by this float for supplying washing liquid to the underside of the filter bed, means for supplying the tanks, a second syphon at a higher level than the first discharging liquid from above the filter bed into the second tank, an overflow from the second tank, and syphons in the tanks at such a height relatively to the overflow that they come into operation only when the second syphon discharges. 12th. The combination of a series of cells, a filter bed occupying the top portion of the cells, means for supplying liquid to be filtered to the upper side thereof, means for withdrawing the filtered liquid from its underside, a tank beneath the filter bed, an automatic syphon which discharges liquid when it accumulates above the filter bed into the tank, a screen above the filter and between it and the syphon, a float in the tank, means operated by the float for cutting off the supply of unfiltered liquid a second tank beneath the filter bed, an overflow from the first tank leading into the second, a float in the second tank, means operated by this float for supplying washing liquid to the underside of the filter bed, means for emptying the tanks, a second syphon at a higher lever than the first discharging liquid from above the filter bed into the second tank, an overflow from the second tank, and syphons in the tanks at such a height relatively to the overflow that they come into operation only when the second syphon discharges. 13th. The combination of a series of cells, a filter bed occupying the top portion of the cells, perforated pipes traversing the cells beneath the filter bed, means for supplying liquid to be filtered to the upper side thereof, means for withdrawing the filtered liquid from its underside, a tank beneath the filter bed, an automatic syphon which discharges liquid when it accumulates above the filter bed into the tank, a float in the tank, means operated by the float for cutting off the supply of unfiltered liquid, a second tank beneath the filter bed, an overflow from the first tank leading into the second, a float in the second tank, means operated by this float for supplying washing liquid to the underside of the cells and to the perforated pipes, and means for emptying the tanks. 14th. The combination of a series of cells, a filter bed occupying the top portion of the cells, means for supplying liquid to be filtered to the upper side thereof, means for withdrawing the filtered liquid from its underside, means for supplying washing liquid beneath the cells, perforated pipes traversing the cells beneath the filter bed, means for supplying washing liquid to the pipes, and a screen above the filter bed allowing the washing liquid to pass but retaining the filtering material. 15th. The combination of a series of cells, a filter bed occupying the top portion of the cells, perforated pipes traversing the cells beneath the filter bed, means for supplying liquid to be filtered to the upper side thereof, means for withdrawing the filtered liquid from its underside, a tank beneath the filter bed, an automatic syphon which discharges liquid when it accumulates above the filter bed into the tank, a screen above the filter and between it and the syphon, a float in the tank, means operated by the float for cutting off the supply of unfiltered liquid, a second tank beneath the filter bed, an overflow from the first tank leading into the second, a float in the second tank, means operated by this float for supplying washing liquid to the underside of the cells and to the perforated pipes, and means for emptying the tanks. 16th. The combination of a series of cells, a filter bed occupying the top portion of the cells, perforated pipes traversing the cells beneath the filter bed, means for supplying liquid to be filtered to the upper side thereof, means for withdrawing the filtered liquid from its underside, a tank beneath the filter bed, an automatic syphon which discharges liquid when it accumulates above the filter bed into the tank, a screen above the filter and between it and the syphon, a float in the tank, means operated by the float for cutting off the supply of unfiltered liquid, a second tank beneath the filter bed, an overflow from the first tank leading into the second, a float in the second tank, means operated by this float for supplying washing liquid to the underside of the cells and to the perforated pipes, and means for emptying the tanks. 17th. The combination of a series of cells, a filter bed occupying the top portion of the cells, perforated pipes traversing the cells beneath the filter bed, means for supplying liquid to be filtered to the upper side thereof, means for withdrawing the filtered liquid from its underside, a tank beneath the filter bed, an automatic syphon which discharges liquid when it accumulates above the filter bed into the tank, a screen above the filter and between it and the syphon, a float in the tank, means operated by the float for cutting off the supply of unfiltered liquid, a second tank beneath the filter bed, an overflow from the first tank leading into the second, a float in the second tank, means operated by this float for supplying washing liquid to the underside of the cells and to the perforated pipes, means for emptying the tanks, a second syphon at a higher level than the first discharging liquid from above the filter bed into the second tank, an overflow from the second tank, and syphons in the tanks at such a height relatively to the overflow that they come into operation only when the second syphon discharges. 18th. The combination of a series of cells, a filter bed occupying the top portion of the cells, perforated pipes traversing the cells beneath the filter bed, means for supplying liquid to be filtered to the upper side thereof, means for withdrawing the filtered liquid from its underside, a tank beneath the filter bed, an automatic syphon which discharges liquid when it accumulates above the filter bed into the tank, a screen above the filter and between it and the syphon, a float in the tank, means operated by the float for cutting off the supply of unfiltered liquid, a second tank beneath the filter bed, an overflow from the first tank leading into the second, a float in the second tank, means operated by this float for supplying washing liquid to the underside of the cells and to the perforated pipes, means for emptying the tanks, a second syphon at a higher level than the first discharging liquid from above the filter bed into the second tank, an overflow from the second tank, and syphons in the tanks at such a height relatively to the overflow that they come into operation only when the second syphon discharges.

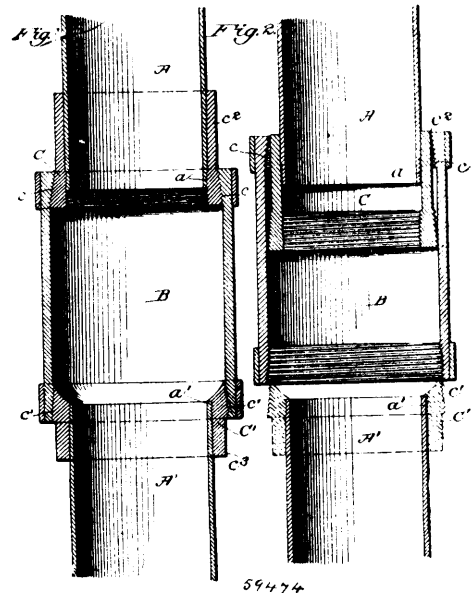
**No. 59,473. Construction of Chain Netting for Gates, etc. (Construction de filets de chaines pour barrières, etc.)**



Horace William Bayliss, Wolverhampton, Stafford, England, 1st April, 1898; 6 years. (Filed 28th February, 1898.)

*Claim.*—1st. Chain-netting for gates and other purposes, constructed with lengths of chain which run in one direction passing right through links of lengths of chain which cross them, the lengths of chain which pass through other lengths being prevented by suitable means from being drawn therethrough, substantially as described. 2nd. Chain-netting for gates and other purposes, constructed with links of some of the lengths of chain passing through links of other lengths of chain, and the links through which other links pass closed in to prevent the chains which pass therethrough being drawn therethrough, substantially as described with reference to figure 1 of the drawings herewith. 3rd. Chain-netting for gates and other purposes, constructed with S hooks, or the like, which pass through links of lengths of chain and themselves connect together also short lengths of chain, substantially as described with reference to figure 2 of the drawings herewith.

**No. 59,474. Pipe Coupler. (Joint de tuyau.)**



John Thompson and Frank Arlo Phillips, both of New York, U.S.A., 1st April, 1898; 6 years. (Filed 4th March, 1898.)

*Claim.*—1st. In a pipe-coupling, the combination with the pipes to be joined, relatively fixed at a certain distance apart, of a sleeve, longer than the distance between the pipes to be joined but of larger diameter than the pipes, and two bushings engaging respectively, by screw threads, with the two pipe ends and with the two ends of said sleeve, each of said bushings being shorter than the distance between the pipes, substantially as set forth. 2nd. The combination, with two fixed pipes, of a pipe-coupling consisting of a sleeve longer than the distance between the pipes but of a diameter