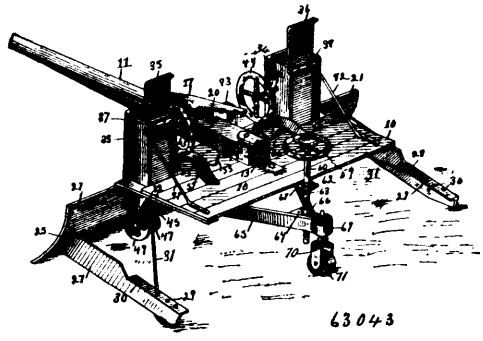
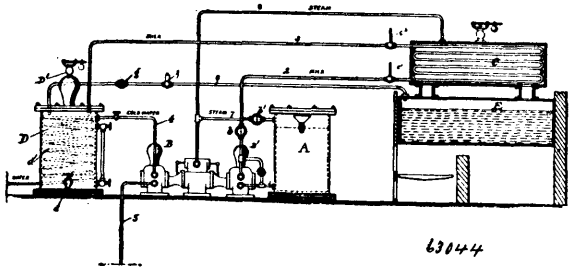
in the notches, and a spring under the rear end of the lever to hold them normally in engagement, substantially as described. 4th. In



a road grading machine, the combination with the floor and the housings, of the hand wheels and their shafts mounted in the housings, the treadle bars pivoted to the housings and bearing upon the floor, and the brake shoes connected with the treadle bars and adapted to engage hand wheels, substantially as described. 5th. In a road grading machine, the combination with the frame of the machine and the curved share, of guide plates, pivoted to the rear of the share near its ends and having horizontal perforated flanges, and brace rods, pivoted to the frame of the machine and having hooked ends to engage the perforations in the flanges of the guide plates, substantially as described. 6th. In a road grading machine, the combination with the floor of the machine and the housings, of the converging brackets, pivotally secured at their front ends to the sides of the housings, a caster frame and wheel suspended between outer ends, a block mounted between them near their outer ends, having a screw threaded opening, a bracket projecting to the rear of the floor above the screw threaded block, and a stool mounted upon a standard swiveled in said bracket and screw threaded to engage in the screw threaded opening in the block, substantially as described. 7th. In a road grading machine, the combination with the floor of the machine and the housings, of the shafts mounted in the housings, the hand wheels on the inner ends of said shafts, the treadle bars pivoted to the inner ends of the housings, the brake-shoes secured to the treadle bars, and the stool mounted in position to bring the feet of the driver in the proper position to operate the treadle bars, substantially as described.

No. 63,044. Liquid Sterilizing Apparatus.
(*Appareil à steriliser les liquides.*)



Frank M. Ashley, Brooklyn, New York, U.S.A., 12th May, 1899; 6 years. (Filed 7th December, 1897.)

Claim.—1st. In an apparatus for the sterilization of milk and the like, a receptacle for the milk or other liquid to be sterilized, a source of steam supply, pipes leading from said source of steam supply into said receptacle, a heating chamber through which the liquid passes, and connections between said chamber and the source of steam supply, a second receptacle for the milk or other liquid located at the opposite end of the system from the first receptacle, a conduit extending between the same and the source of steam supply, a conduit for the milk or other liquid extending between the heating chamber and said second receptacle, and means for cooling the the liquid in said second receptacle while it is under steam pressure, whereby steam is supplied simultaneously to the receptacles on opposite ends of the system and the pressures practically counterbalanced, substantially as described. 2nd. In an apparatus for the sterilization of milk and the like, a receptacle for the milk or other liquid to be sterilized, a source of steam supply, pipes leading from said source of steam supply into said receptacle, a heating chamber through which the liquid passes and connections between said chamber and the source of steam supply, a second receptacle for the milk or other liquid located at the opposite end of the system from the first receptacle, a conduit extending between the same and the source of steam supply, a conduit for the milk or other liquid extending between the heating chamber and said second receptacle and means for cooling the liquid in said second receptacle while it is under steam pressure, whereby steam is supplied simultaneously to the receptacles on opposite ends of the system and the pressures practically counterbalanced, said steam pipe between the source of steam supply and the cooling receptacle being provided with a reducing valve, substantially as described. 3rd. In the herein described system for sterilizing and subsequently cooling milk or other liquid, receptacles located at either end of the system, conduit pipes leading from the one to the other and an intermediate heating chamber through which the liquid passes, a source of steam supply and connections between said source of steam supply and the heating chamber and also the liquid receptacles and means for cooling the liquid in one of said receptacles, substantially as described. 4th. The herein described apparatus for sterilizing milk and the like comprising a receptacle for the milk or other liquid to be sterilized, a series of receptacles for said milk as B, D, a heating chamber arranged between said receptacles B, D, and connecting with each of said receptacles, means for forcing the liquid to be sterilized from the first containing receptacle through the two receptacles B, D, and the heating chamber, a source of steam supply and connections between the source of steam supply and the heating-chamber, connections between said source of steam supply and a suitable pump for causing circulation of the liquid to be sterilized, a source of hot air supply also connected to said pump whereby said hot air is forced through suitable conduits, and connections between the source of hot air supply and each of the receptacles B, D. 5th. In an apparatus for sterilizing milk or the like, a source of steam supply, a milk containing receptacle such as B, means for forcing hot air under pressure through said source of steam supply and into said milk containing receptacle B, a heating chamber also connected with the source of steam supply and in connection with the chamber B, whereby the milk or other liquid to be sterilized is heated to the proper temperature, substantially as described. 6th. In an apparatus for sterilizing milk and the like, a source of liquid supply, a liquid-containing receptacle as B, with means for forcing the liquid thereinto, means for supplying air under pressure to said receptacle B and means for heating said air to a high temperature before it enters into contact with the milk while under pressure, above the boiling point, substantially as described. 7th. In the herein described apparatus, the chambers B, D, with means for supplying hot air at varying pressures respectively to said receptacles, a heating chamber intermediate the two receptacles and connected with each of them, and means for forcing the liquid to be sterilized from a source of supply through the receptacles B, D, and the heating chamber, substantially as described. 8th. The herein described apparatus for sterilizing milk or other liquids comprising a receptacle into which the liquid is forced, means for supplying pressure to the liquid in said chamber provided with a coil and connections between the coil and the first chamber with means for heating the coil, a third chamber with connections between said chamber and the second chamber, and means for keeping the liquid in said third chamber under pressure with means for cooling it in said chamber while under pressure, substantially as described. 9th. The herein described apparatus for sterilizing milk or other liquids comprising a receptacle as A a source of steam supply, a second receptacle, as B, with a liquid conduit between said receptacles, connections between the source of steam supply and both said receptacles for maintaining pressure upon the liquid therein, a heating-chamber in connection with the second liquid receptacle with means for supplying heat thereto for heating the liquid, and a cooling chamber D in connection with the heating chamber, and connections between said cooling chamber and the source of steam supply whereby the liquid is cooled under steam pressure, substantially as described. 10th. In the herein described apparatus, the receptacles A, B, with connections between the same, a source of steam supply and connections between the same and both said receptacles, a third receptacle C provided with a coil in connection with the receptacle B, the body of said receptacle C being also connected with the source of steam supply whereby the liquid in the coil is heated, a fourth receptacle as D with connections between it and the coil in the third receptacle, with connections between said receptacle D and the source of steam supply, and a cooling coil arranged in said receptacle D, substantially as described.

No. 63,045. Camera. (*Camera.*)

Henry Gassner and Benjamin Mark, both of New York City, New York, U.S.A., 12th May, 1899; 6 years. (Filed 18th July, 1898.)

Claim.—1st. A camera having a reel mounted to slide so that it may be adjusted into focused position, the reel being adapted to successively receive the photographic plates, and means mounted in the camera by which the reel may be pushed into focused position after each plate is placed thereon. 2nd. The focusing frame mounted in the camera so as to move the plate carrier into focused position as the plates are placed thereon. 3rd. The removable plate-containing box having the door through which the plates may be withdrawn, the box enclosing the plates and permitting them to be successively withdrawn therefrom. 4th. The glass plates connected with each other by an opaque flexible web. 5th. The spring-pressed plate 26 for engaging the door of the plate-containing box to normally close the door. 6th. The spring-actuated sliding plates 31 and 35 for mounting the reel or plate carrier so that the same may