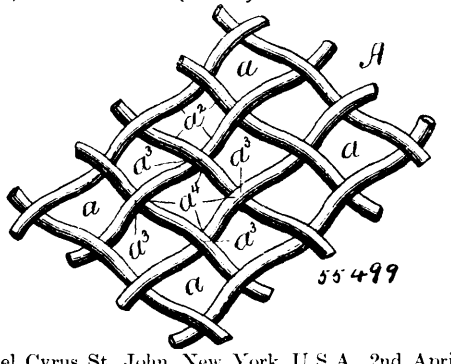
section, substantially as described. 5th. A folding bed comprising a head section having side compartments and a top, a shaft extended transversely through the head section, side pieces secured to the said shaft, a toothed segment upon one end of the shaft and within one of the compartments, a lug formed upon the toothed segment, a rope secured at one end of the lug and extending upwardly over a pulley suitably journalled in the top of the head section, a weight attached to the end of the rope, an arm attached to the opposite end of the shaft within the other compartment, a rope secured to said arm and extending upwardly over the pulley at the top of the head section, a weight upon the end of the rope, a foot piece, and a means for operating the shaft and swinging the side pieces and foot piece within said section, substantially as described. 6th. A folding bed comprising a head section formed with a top and with side compartments, a shaft extended through the head section, a toothed segment upon one end of the shaft and within one of the compartments, a second shaft extended longitudinally through the said compartment, and provided with a worm gear intermeshing with the toothed segment, a casting attached to the inner wall of the compartment, a short shaft extended through the side of the compartment and the casting, a mitre gear carried by the short shaft, a mitre gear upon the worm gear shaft adapted to intermesh with the first-named mitre gear, a crank upon the end of the short shaft for operating the mitre gears and swinging the side pieces upwardly within the head section, and a foot piece attached to the side pieces, substantially as described.

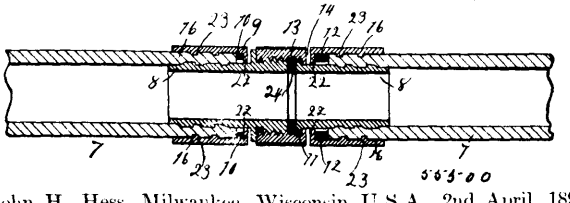
No. 55,499. Grate. (*Grille.*)



Gamaliel Cyrus St. John, New York, U.S.A., 2nd April, 1897; 6 years. (Filed 16th March, 1897.)

Claim.—1st. A grate in the nature of a warped and woofed reticulated structure, substantially as described. 2nd. A grate in the nature of a reticulated structure, and a reinforcing frame or rim surrounding the grate, substantially as described. 3rd. A grate comprising an open-work body portion, and a frame surrounding and reinforcing the body portion, substantially as described. 4th. A grate comprising an open-work body portion, and a frame or rim cast integral with the body portion, substantially as described. 5th. A grate in the nature of a reticulated structure, and a reinforcing frame or rim secured to and constituting the perimeter of the grate, the grate being substantially a plane surface freely exposed underneath, substantially as described. 6th. A grate having its body portion constructed of interlaced or interwoven wires or rods, and a reinforcing frame or rim secured to and constituting the perimeter of the grate, the combined area of the draft-spaces being greatly in excess of the area of the metal presented to the direct action of the heat, whereby a strong and constant upward draft will be generated by the rapid intake of air beneath the grate, operating to convey the heat away from the meshes or webs constituting the fuel-supporting surfaces, and also shielding these surfaces, thereby protecting them from rapid destruction, substantially as described. 7th. A grate in the nature of a reticulated or woven structure having raised portions at the air-openings constituting fuel supports, and a reinforcing frame or rim secured to and constituting the perimeter of the grate, substantially as described. 8th. An endless travelling grate, comprising a plurality of open-work grate surfaces, and a frame inclosing each surface, substantially as described.

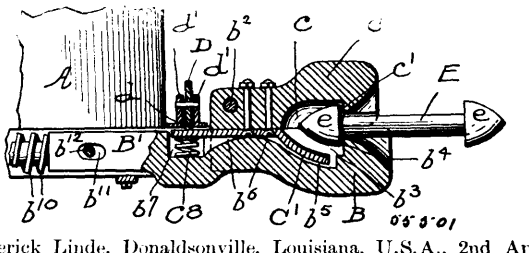
No. 55,500. Hose-coupling. (*Joint de boyau.*)



John H. Hess, Milwaukee, Wisconsin, U.S.A., 2nd April, 1897; 6 years. (Filed 16th March, 1897.)

Claim.—In a hose-coupling, the combination of a hose-section, a tube inserted therein, said tube provided with a lug or lugs, a clamp consisting of two similar half-sections hinged together at their meeting edges, and provided at their outer edges with outstanding projections having registering apertures, said sections adapted to embrace the hose, and provided at their outer ends with right-angular inwardly-extending shoulders adapted to engage back of the lug or lugs of the tube, a thumb-screw passing through the registering apertures of the outstanding projections of the hinged sections, and a nut engaging the tube, and adapted for engagement with another part.

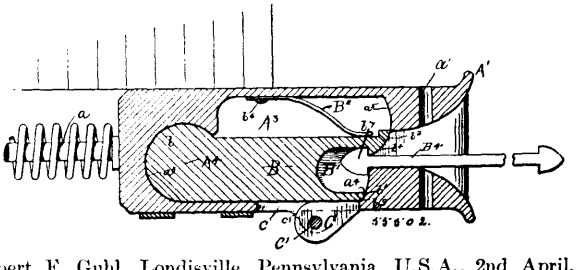
No. 55,501. Car Coupling. (*Attelage de chars.*)



Frederick Linde, Donaldsonville, Louisiana, U.S.A., 2nd April, 1897; 6 years. (Filed 16th March, 1897.)

Claim.—1st. In a car-coupler, the combination with a lower jaw of a hinged upper jaw, said jaws constituting the draw-head, a link, lifting lever attached to said latter jaw and projecting to the rear of the same, a spring acting on said lever for keeping the jaw normally closed, and a cam-lever adapted to engage said lifting-lever to raise the upper jaw and disengage the coupling-link, substantially as described. 2nd. In a car-coupler, the combination with a lower jaw forming one part of the draw-head, and having laterally-extending projections and upwardly-extending lugs, of an upper jaw forming the other part of the draw-head, and pivoted between said lugs, a link-lifting lever attached to said jaws, and means for lifting said jaw to disengage the coupling-link, substantially as described. 3rd. In a car-coupler, the combination with a lower jaw, of an upper jaw pivoted thereto, but being shorter than the same, said jaws constituting the draw-head, and applied so that the shock of concussion is received by the lower jaw alone, a link-lifting lever attached to the upper jaw, and means for lifting said upper jaw, substantially as described. 4th. In a car-coupler, the combination with a lower jaw forming one part of the draw-head and having laterally extending attaching projections, upwardly-extending lugs and a spring-receiving recess, an upper jaw forming the other part of the draw-head and pivoted between said lugs, a link-lifting lever attached to said latter jaw and projecting to the rear of the same over the spring-recess, a coil-spring in said recess and bearing against said lever, and a cam-lever for depressing the rear end of the link-lifting lever to lift the upper jaw and release the coupling-link, substantially as described. 5th. In a car-coupler, the combination with a lower jaw forming one part of the draw-head and having a rearwardly-extending draw-bar, a spring attached to said draw-bar to resist shocks, an upper pivoted jaw forming the other part of the draw-head, a link-lifting lever attached to said latter jaw and projecting to the rear of the same, a spring connecting said lever and the lower jaw to hold the jaws normally closed, and a cam-lever for depressing the end of the lifting-lever to uncouple, substantially as described.

No. 55,502. Car Coupling. (*Attelage de chars.*)



Albert F. Guhl, Londisville, Pennsylvania, U.S.A., 2nd April, 1897; 6 years. (Filed 16th March, 1897.)

Claim.—1st. In a car coupling of the character described, in combination, the draw-head A having the bull-nose A^1 and the plate A^2 secured into a side thereof, the housing-chamber in the forward end of the draw-head with the circular rear end wall a^3 and the circular front end wall portions a^4 and a^5, said circular portions having different radii from the common centre A^4, having also the link-aperture through the bull-nose end thereof opening into said chamber, and the side opening thereinto with the plate A^2 adapted to close said opening, the coupling-block B housed within the chamber and having the circular rear end portion b engaging the wall portion a^3 and the circular front end portions b^1 and b^2 engaging the wall portions a^4 and a^5, said block having in its forward end the link-socket B^1 with the link-engaging hook b^4 and the link-lifting portion b^5, with mechanism provided to raise the forward end of said block, and a spring B^2 as shown to press said end normally