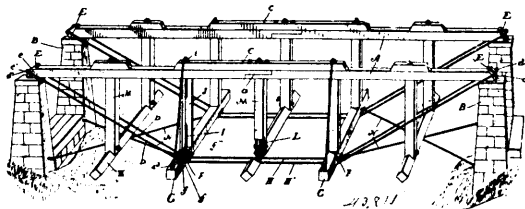


and having the mud drum H, provided with pipe T, through which water enters said compartment, and filtering chamber J, located at the upper portion of the boiler, and the conduit I, connecting the compartment G, to the compartment J, and the pipe L, extending to or near the bottom of the boiler, and delivering the filtered water from the filtering chamber to the boiler, substantially as and for the purposes specified. 17th. The compartment G, occupying a transverse section of the boiler, and having the mud drum H, provided with pipe T, through which water enters said compartment, and filtering chamber J, located at the upper portion of the boiler, and the conduit I, connecting the compartment G to the compartment J, and the pipe L, and mud drum M, the pipe L extending to said mud drum and there delivering the water from the filtering chamber, substantially as and for the purpose specified. 18th. The combination of the compartment G, occupying a transverse section of the boiler next to the smoke box, and having inlet T, located in the vicinity of the bottom of the said boiler, and filtering chamber located to the rear of said compartment, and at the top portion of the boiler, and provided with filtering material, conduit L located in the upper portion of the boiler, and connecting the upper part of said compartment with the upper part of the said filtering chamber and the steam pipe S, connecting the steam space of the boiler with the upper portion of the filtering chamber, and chamber X, below the filtering material and above the floor of compartment J, and delivery conduit L, located in the boiler, and extending from said chamber X to the lower portion of the boiler, the fire flues passing through the latter and through compartment G, substantially as and for the purposes specified. 19th. The combination of the compartment G, occupying a transverse section of the boiler next to the smoke box, and having inlet T, located in the mud drum in the bottom of the said boiler, and filtering chamber located to the rear of said compartment, and at the top portion of the boiler, and provided with filtering material, conduit L, located in the upper portion of the boiler, and connecting the upper part of said compartment with the upper part of the said filtering chamber, and the steam pipe S, connecting the steam space of the boiler with the upper portion of the filtering chamber X, below the filtering material and above the floor of compartment J, and delivery conduit L, located in the boiler and extending from said chamber X, into the mud drum M, at the bottom of the boiler, the fire flues passing through the latter and through compartment G, and man hole R, for reaching compartment G, substantially as and for the purposes specified. 20th. The combination of the compartment G, occupying a transverse section of the boiler next to the smoke box, and having inlet T, located in the mud drum in the bottom of the said boiler, and filtering chamber located to the rear of said compartment, and at the top portion of the boiler, and provided with filtering material, conduit L, located in the upper portion of the boiler, and connecting the upper part of said compartment with the upper part of the said filtering chamber, and the steam pipe S, connecting the steam space of the boiler with the upper portion of the filtering chamber X, below the filtering material and above the floor of compartment J, and delivery conduit L, located in the boiler and extending from said chamber X, into the mud drum M, at the bottom of the boiler, the fire flues passing through the latter and through compartment G, and man hole R, for reaching compartment G, substantially as and for the purposes specified.

No. 43,811. Road Bridge. (Pont de route.)

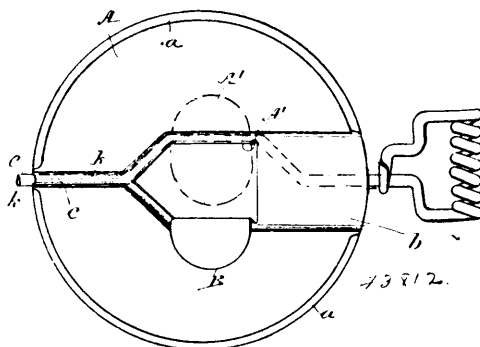


John James Price and Royal Grafton, both of Toronto, Ontario, Canada, 2nd August, 1893; 6 years.

Claim.—1st. The combination with the longitudinal timbers or stringers A, having their ends supported upon the piers B, of the truss rods D, D¹, hollow posts J, and needle beams G arranged to support the roadway, as and for the purpose specified. 2nd. The combination with the longitudinal timbers or stringers A, having their ends supported upon the piers B, of the truss rods D and D¹, and H and H¹, and the needle beams G, hollow posts J, and binding rods I, arranged as and for the purpose specified. 3rd. The combination with the longitudinal timbers or stringers A, having their ends supported upon the piers B, and spliced at a, and bound together by the beams C, of the truss rods D and D¹, and H and H¹, and the needle beams G, hollow posts J, and binding rods I, arranged as and for the purpose specified. 4th. The combination with the longitudinal timbers or stringers A, having their ends supported upon the piers B, and provided with end cap plates E, having lateral recesses e, and cross bars e¹ fitting in the recess, the needle beams G provided with straddle plates F, having lateral recesses f, and cross bars fitting into the recesses, of the truss rods D, D¹, and H, H¹, connected to the cross bars e¹ and f¹ in the recesses, the hollow

posts J extending between the needle beams and the longitudinal timbers and the binding rods I, arranged as and for the purpose specified. 5th. The combination with the longitudinal timbers or stringers A, having their ends supported upon the piers B, of the truss rods D and D¹, and H and H¹, the needle beams G, hollow posts J, binding rods I, and the cross braces N, connected to the needle beams and the ends of the bridge, as and for the purpose specified. 6th. The combination with the longitudinal timbers or stringers A, having their ends supported upon the piers B, of the truss rods D and D¹, and H and H¹, the needle beams G, hollow posts J, binding rods I, and the intermediate needle beams K, having their corner edges placed upwardly and suspended from the longitudinal timbers by the rods L, and having the hollow posts M extending between the needle beams and the longitudinal timbers, as and for the purpose specified.

No. 43,812. Damper. (Registre.)

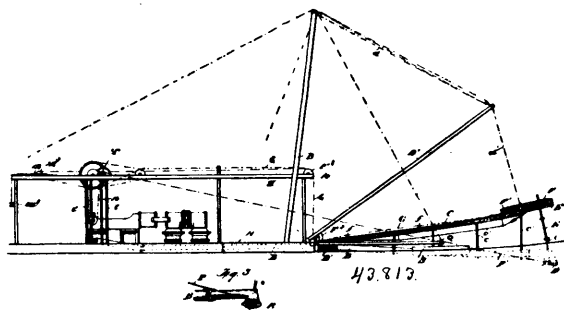


Thomas Davidson, Montreal, Quebec, Canada, 3rd August, 1893; 6 years.

Claim.—1st. A damper, having an irregular channel diametrically through its body to receive and guide an irregularly shaped spindle, in combination with such a spindle, for the purposes set forth. 2nd. A damper, having an irregular channel diametrically through its body to receive and guide an irregularly shaped spindle, and said body formed with a free locking portion adapted to hold said spindle in place, in combination with such a spindle. 3rd. A damper, formed of two parts or discs, cut away centrally to provide one or more free projecting tongues or flap portions and depressed outwardly to form an internal guiding channel and seat for the spindle, and in combination with such spindle. 4th. In a damper, the combination of two body parts having central locking pieces or flaps integral therewith and depressed to form a guiding channel or groove inclined in part, and a bent spindle, for the purposes set forth. 5th. In a damper, the combination of the discs A, B, cut away to provide flaps A¹, B¹, and depressed to form an irregular guiding channel or seat between them, as shown, and the bent or irregularly shaped spindle k, held in place in said seat by one of said flaps, as set forth.

No. 43,813. Hydraulic Dredge.

(Dragueur hydraulique.)



Caleb H. Booth, Dubuque, Iowa, U.S.A., 3rd August, 1893; 6 years.

Claim.—1st. In a hydraulic dredge, the combination, with the barge and supporting jib and a suction pipe, of a curved bell-mouth for the pipe, arranged to have a slight axial movement, a stirrer at the mouth, means for actuating the stirrer, and moving means connected with the sides of the bell-mouth extending out laterally therefrom, substantially as described. 2nd. In a hydraulic dredge, the combination, with the suction pipe, having a bell-mouth arranged to have a slight rotary axial movement and a stirrer at the end thereof, of ropes or the equivalent attached to the sides of the mouth and extending in opposite directions substantially on a hori-