Price in Canada 82.50 per An. \{ United States - $\$ 2.50$

## IN VENTIONS PA'IENTED.

## Note.-Patents are granted for 15 years. The term of years for which the fee has been paid, is given after the date of the patent.

## No. 35,080. Car Coupling. (Attelage de chars.)

Charles Burpee. Rowen, New Brunswick, Canada, and Charles $\mathrm{I}_{\mathrm{L}}$. Tilley, Waterville, New Brunswick, Canada, 1st October, 1890 : chears
head, -list. In a car coupling, the combination, with the drawits front end the wht block pivoted therein and having a noteh in and front end registering with a notch in the draw-head, Weight-block of a normally res, of a pin seated in said registering notches, and In a car- resting upon sad catch, substantially as described. 2nd. block pivoupling, the combination, with the draw-head, the weight ing wivoted therein, and having a notch in its front end rerister ing with a notch in the draw-head, the lower front corners of said Weight-block being beveled, and the pin-supporting catch pivotally mounted withing said weight-block and having its front end also beveled, of a pin seated in said registering notches, and normally resting upon the front end of the catch, the whole operating substantially as described.

## No. 35,081. Hot Water Boiler.

## (Calorifere à eau.)

David Lancaster Dwinnell, and Miller Brothers and Toms, all of
Montreal, Quebec, Candia Claim.-1, Quebec, Canada, lst October, 1500 ; 5 years.
with the fire chamber water boiler, or furnace, the combination, municating with ther, andia water jacketsurrounding same and comform of hollow discs orpply or return pipes, of water sections in the jacket and having fur chambers in communication with said water and central apertured for the passare of protucts of combustion. between each sectioned hub portions, forming the point of contact diaphragm adapted, one or wore of such sections having a central ward from the con to compel the passage of the water radially outor peripheries centre of such section or sections to its or their sides or peripheries, flow pipes leading from the uppermost of such secfons, and a suitable shell or casing encircling such sections, as set forth. 2nd. In a hot water boiler, or furnace, the combination, communicating chamber, and a water jacket surrounding same and communicating with the supply or return pipes, of water sections in portions the products of water jacket, and the flow pipes. having portions of greater depth combustion, and having central apertured diaphragm more of such sect their edgos, so as to securo tapering wapd from thapted to compections being provided with a central weripheries the centre of sumel the passage of the water radially outmeans for a suitableshell or cion or sectionsto its or theirsides or water boiler or fung the whole together, encincint such sections, and Water jacket or furmace. the cotogether, as set forth. 3rd. In a hot munication between outlets, of witer, with the fire chamber, so, of the entire area of the uptere anded centrally or approximately phragms located in one or upoer and lower sides of same, diasuch ports of communication more of such sections across the line of gether, as set forth. 4th. The combing for holding the whole toand contact with each other at central porion, with the water sections sections, and having one passing centrally tis rough the uppermost and the other end to the uppermost secthin the lowerinost section,


## No. 35,082. Combined Bridle and Check.

(Bride el rêne combinées.)
John H. Rafferty, and Michacl J. Connery, both ot Worcester,
Massachusetts, U.S.A., 1st October, 1890 ; $; 5$ years.
Claim.-1st. A bridle, made with cheek, and farc picces, of each
side formed in one continuous strap connected $\begin{gathered}\text { mith the crown-strap. }\end{gathered}$
combined with bent or U-shaped divided clasps holding the straps at their lower bends or bights, substantially as herein set forth. 2nd. A bridle. made with the cheek, and face pieces of each side formed in one continuous strap, connected with the crown-strap, combined with $U$-shaped divided elaspe holding the straps at their lower bends or bights, and a bit held to the clasps, substantially as herein set forth. 3rd. A bridle, made with the cheek and face pieces of each side formed in one continuous strap connected at one end to the crown-strap, and extending rearward at the other ends to form a check-rein, combined with clasps engaging the lower bends or bights of the strips, and a bit hell to the chasps, substantially as or bights of the straps, and a bit held to the chaspr, substantially as
herein set forth. 4th. A bridle, made with the cheek and face pieces of ench side formed in one continuous strip connected at one end to the crown-strap, and extending rearward at the other ends to form a check-rein, combined with bent or U-shaped divided clasps holding the straps at their lower bends or bights, and a bit held to the clasps, substantially as herein set forth. 5 th. In a combined bridle and check, the cheek and face pieces of each side formed as continuous straps connected at one end to the crown-strap, and extending rearward at the other ends to form a check-rein, clasp devices bolding the two straps at their lower bonds or bights, a bit held to the clasps, overdraw-check loops and side loops held to the crown-strap, and a detachable clip device adapted to the face straps, substantially as described, whereby the bridle may be adjusted with substantialiy as described, whereby the bet forth. fith. In a combined bridle and check, the check and face pieces of each side formed as continuous straps connected at one end to the crown-strap, and excontinuous straps connected at one end to the crown-strap, and or $U$ tending rearward at the other ends to form a check-rem, bent or
shaped divided clasps holding the straps at their lower bends or shaped divided clasps hoining the strapsecheot loops and side loops bights, a bit held to the ciasps, overdable clip device adapted to the face-straps, substantially as described. whereby the bridle mity be adjusted with an overdraw-check or a side check, and the strapbights may be re-adjusted in the divided clasps to prevent twisting of the straps when the overiraw-check is changed to a somo as set forth. 7th. The combination, in a bridle and check, ot a crown-strap $A$, throat-latch $B, B^{1}$, two continuons straps $C, B, E$, and $C^{1} . D^{1} . E^{1}$, connected to the crown-strap, a check-strap ${ }^{2}$, con nected to the parts $E$, E $^{1}$ divided clasps II, II, clamping the bights $c, c$, of the straps $C, D, C^{1}, J^{1}$, a bit connected to the clasps, a browband $G$, and side loops adapted to receive the straps $b, E^{t}$, as a sude-check-rein device, substantially as herein set forth. Xth. The com $B$, bination, in a bride and cheek, of a crown-strap A, conected to the


 J, held to the face-strans $\mathrm{D}, \mathrm{D}^{1}$, and a bit held to the clasps in in substantially as described, for the purposes set forth. continubridle, the combination, with a crown-strap and connected contina ous straps forming cheek, face, and check straps and doubled-in bights $c, c$, substantially as specified, of divided clisps of e -iorin, placed on said bights, and provided with nuts at their extremities, substantially as herein set forth. 10th. In a bridle, the combination, with a crown-strap and connected continuous straps forming ehcek, face, and check straps and doubled-inbights c, c, subat at their ally as specified, of two-part clasps at said bights, provide the claspextremities with clamping nuts, and eyes connected forth. 11 th. bends to receive the bit, substantially as hercin seth a crownIn a combined bridle and check, the combination, $\mathrm{D}^{1}, \mathrm{E}^{1}$, forming strap and connected continuous straps $\mathbb{C}$, $U$, Ehaped diviled clasps cheek, face, and check-straps, and bes, of an adjustable and detachinclosing the bights $c, c$, of substantially as herein set forth. 12 th . able clip on the face-siraps, with a crown-strap and connected conIn a bride, the combination, wice, and check-straps, and doubledin bights $c, c$, substantially as specified, of bent or U-shaped clasps in bights $c, c$, substantially as $h h$, ench having an open ring $h^{1}$, a shoulder $h^{2}$, and a beveled extremity $h^{3}$, and detents holding the parts $h h$ to gether, substantially as herein set forth. 13th. In a bridle, the combination. with a crown-strap and connected continuoushts $c, c, s u b-$ ing cheek, face, and check straps, and doubledin two parts $h, h^{1}$, stantially as specified, of clasps $H$, formed with $h^{2}$, a beveled extremity $h^{3}$, and screw threads $h^{4}$, and nuts $H^{2}$, run upon said threads, tremity $h^{2}$, and screw antially as herein set forth.

