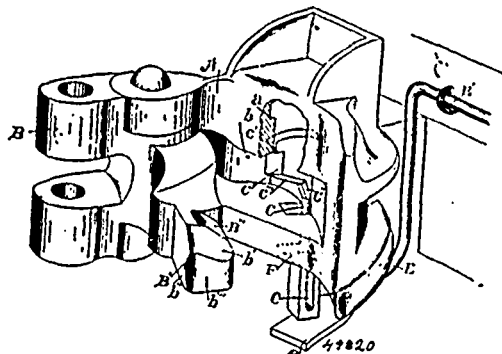
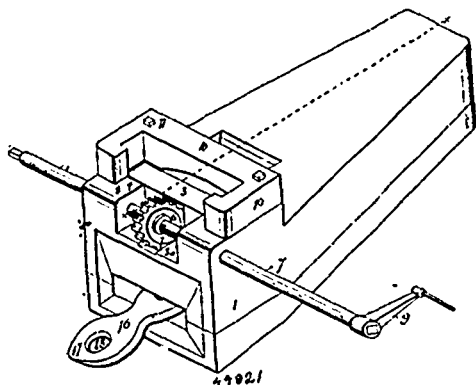


provided on its front face with the catch arranged to engage the draw-head to support the bar in its elevated position, and also pro-



vided with the stop arranged to limit the upward movement of the bar while the coupling is being effected. 2nd. In a car-coupling, the reciprocating locking bar provided with the shoulder and with the bevelled face arranged below such shoulder, and also provided on its front face with the catch arranged to support the bar in its elevated position, such bar being arranged to engage an inclined face in the chamber to force the bar forward to throw the catch into engagement. 3rd. A car-coupling, provided with a swinging knuckle having an arm rigidly fixed thereto and adapted to be chambered in the draw-head, a locking bar arranged to reciprocate vertically in the draw-head and provided with a locking shoulder adapted by the reciprocation of the bar to be thrown into and out of the path of the arm, and provided with a suitable catch arranged to engage the draw-head to hold the locking shoulder of the bar out of the path of the arm, such bar being arranged to be engaged by the arm to release the catch from the shoulder.

No. 49,821. Car-Coupler. (*Attelage de chars*.)



Horace Lester Dunlap, North Topeka, Kansas, U.S.A., 29th August, 1895; 6 years.

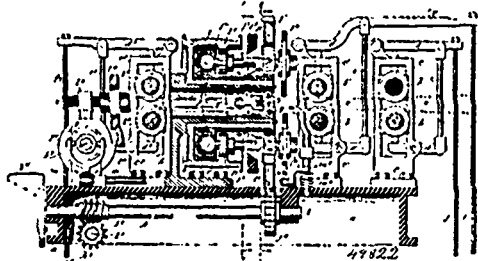
Claim.—1st. In a car-coupling consisting of a draw-head, a block sliding in grooves therein, a coupling pin secured to said block, a ratchet on said block, a ratchet-wheel engaging said ratchet, a shaft loosely journaled in the draw-head upon which said ratchet wheel is carried, a block set on the draw-head to retain the block to which the coupling pin is attached in alignment with the groove in the draw-head, and a pivoted foot plate to support the pin and block to which it is attached when in an elevated position, substantially as set forth. 2nd. In car-coupler, a coupling pin, a block to which said pin is attached, extensions 15 on said block, a ratchet on said block, a lug 12 on said block, and a foot plate 13 pivoted to the lug 12 to support the block and pin when the pin is raised, substantially as and for the purpose set forth.

No. 49,822. Lathe. (*Tour*.)

Henry William Norton Cole, Brooklyn, New York, U.S.A., 29th August, 1895; 6 years.

Claim.—1st. In a lathe for irregular shapes, the combination with a tool, of means for revolving said tool in an orbit parallel to the desired cross-contour of the article and varying the shape of said orbit as the tool operates at different points along the length of said article, substantially as set forth. 2nd. In a lathe for irregular shapes, the combination with a tool and means for rotating said tool upon its axis, of means for revolving said tool in an orbit parallel to the desired cross-contour of the article to be produced and for varying the orbit of motion of the rotating tool in accordance with the desired contour of the article as the tool operates at different points along the length of said article, substantially as set

forth. 3rd. In a lathe for irregular shapes, the combination with a tool, of means for revolving said tool about the article, and a peri-



pherally varying guide controlling the orbit of movement of said tool, said guide being of different shape at different portions of its length, and means for causing relative longitudinal movements of said guide, substantially as set forth. 4th. In a lathe for irregular shapes, the combination with a tool and means for rotating the same upon its axis, of means for revolving said tool about the article, and a peripherally varying guide controlling the orbit of movement of said tool, said guide being of different shape and different dimensions at different portions of its length, and means for causing relative longitudinal movements of said guide, substantially as set forth. 5th. In a lathe for irregular shapes, the combination with a rotating tool head and one or more tools carried thereby and mechanism for feeding the blank or article through said tool head, of means for rotating said tools upon their axes as they are caused to revolve about the article, and a guide controlling the movement of said tools in accordance with the desired irregular contour of the article, substantially as set forth. 6th. In a lathe or irregular shapes, the combination with a rotating tool head and one or more tool shafts fitted to rotate therein and one or more tools carried thereby, the bearings of said shafts being so constructed as to permit the tools to approach to and recede from the axis of revolution, and mechanism for feeding the blank or article through said tool head, and gears upon said tool shafts and a driving gear with which said gears of the tool shafts are held in engagement in their revolution about the article, and means for rotating said driving gear independently of the rotation of the tool head, and a guide controlling the movement of said tools and means for operating said guide so that it will actuate the tools in accordance with the desired irregular contour of the article, substantially as set forth. 7th. In a lathe for irregular shapes, the combination with a rotating tool head and one or more tool shafts carried thereby, and tools upon said shafts and means for rotating said tool shafts, and mechanism for feeding the blank or article through said tool head, of a guide having its contour varied in accordance with the contour desired in the article, and one or more contact devices connected to said tools, and means for moving said guide so as to bring said contact devices into contact with different portions of said guide according to the desired contour of the article, substantially as set forth. 8th. In a lathe for irregular shapes, the combination of a rotating tool head, one or more tool shafts held at one end in a bearing having a fixed position on said tool head and at the other end by a bearing fitted to slide in said tool head and one or more tools carried by said tool shafts, said bearings permitting said tools to move toward and from the axis of revolution, means for rotating said tool shafts and tools upon their axes, and a guide controlling the movement of the tools and tool shafts to and from the axis of revolution in accordance with the desired irregular contour of the articles, substantially as set forth. 9th. In a lathe for irregular shapes, the combination of a rotating tool head, one or more tool shafts held in bearings thereon, and one or more tools carried thereon said tool shaft bearings being so constructed as to permit the tools to move toward and from the axis of revolution, means for rotating said tool shafts independently of the rotation of the tool head, and a guide controlling the movement of said tools and tool shafts to and from the axis of revolution, and having its contour varied in accordance with the contour desired in the article, and means for moving said guide so as to bring different portions of its surface into operation upon said tools in accordance with the desired irregular contour of the article, and means for feeding the article under the action of said tools, substantially as set forth. 10th. In a lathe for irregular shapes, the combination with a rotating tool head and one or more tools carried thereby, and a non rotary head stock carrying said tool head and having a tubular opening therethrough, of spring guides held in said head stock and adapted to centre and guide the article as it passes through the bore of the head stock, and a suitable feeding mechanism adapted to co-operate with said spring guides in feeding the article under the action of said tools, substantially as set forth. 11th. In a lathe for irregular shapes, the combination with a rotating tool head and one or more tools carried thereby, and a non-rotary head stock carrying said tool head and having a tubular opening therethrough, of spring guides held in said head stock and adapted to centre and guide the article as it passes through the bore of the said head stock, and the sets of feed rollers b , b' and b'' , both of said sets of feed rollers b and b' being adapted to guide the article under the action of the tools until the article is guided at one end