

ing projections O¹, L-shaped latches pivoted to said support, and having notched lower ends which engage and hold the arm S, at the end of its throw, set screws in the upper ends of the latches which are engaged by the arm M, and a registering mechanism, substantially as shown and described. 10th. In a meter, the combination with a cylinder pivoted with ports at its opposite ends, and an inlet and outlet chamber arranged beneath the cylinder which are in communication with said ports, of valves pivoted to the bottom of said inlet chamber directly beneath the ports and which are adapted to close either the inlet or outlet chamber, a link extending through the inlet chamber and pivotally connected at its ends to the valves, and outwardly extending valve operating rod, a piston, a reciprocating rod, and a registering mechanism actuated by said rod, substantially as shown and described.

No. 40,188. Transfer Ticket. (Billet de transfert.)

Arthur White, Toronto, Ontario, Canada, 1st September, 1892; 6 years.

Claim.—1st. A transfer ticket bearing a mark of cancellation capable of becoming visible at a period subsequent to the marking thereof, substantially as and for the purpose specified. 2nd. A novel method of cancelling tickets, consisting essentially in applying the mark of cancellation at the time of issue in such a manner that it will take effect at some desired subsequent period, substantially as and for the purpose specified.

No. 40,189. Rail Joint. (Joint de rail.)

Frederick H. Heath, Minneapolis, Minnesota, U.S.A., 1st September, 1892; 6 years.

Claim.—1st. The combination with the rail or rails, of a tie plate arranged between and extending over adjoining ties, an angle bar formed integrally with and on the upper surface of said plate, and having an inner vertical part to engage the web of the rail, said vertical part provided with holes, the rail web or webs having holes registering therewith and bolts arranged therein, for the purpose specified. 2nd. The combination with the rail or rails, of a tie plate whereon the same are adapted to rest, said plate adapted to extend between and across adjoining ties, clamping blocks thereon, an angle bar formed integrally with said plate and having as described the inner vertical part to engage the rail web or webs, a fish-plate arranged to engage the tread and the base of the opposite side of the rail or rails, and bolts passing through said plate, through the web or webs and through the angle bar whereby the rail or rails are aligned, strengthened and fastened, substantially as described. 3rd. The combination in a rail joint, of the rail or rails, with a plate upon the upper surface of which the same are adapted to rest clamping blocks for securing the rails on the plate, bolts for fastening the said blocks and extending beneath the said plate, an angle bar raised on one edge of the plate and having the inwardly extending part and the inner vertical part to be bolted to the web of the rail, said inwardly extending part consisting of a higher horizontal portion and the plate slanting end parts and the brackets so arranged to strengthen the angle bar, all parts of the said bar being formed integrally with said plate, substantially as described. 4th. The combination with the 2 adapted to extend across adjoining ties, of the clamping blocks and bolts therefor for securing the rail or rails thereon, said plate provided with a centrally depending and integral truss, an integral angle bar formed on the top of the plate and extending in to engage the web or webs of the rail or rails, the fish-plate arranged to engage the other side of the rail or rails, and bolts extending through and locking together said fish-plate, rail, web and bar, substantially as described. 5th. The combination with the plate 2, of the angle bar formed integrally therewith, rail clamps and bolts for securing together the bar and rail or rails to be aligned thereby, the space beneath the angle bar and trace being larger than the rail base whereby the bearing is had on the web of the rail, substantially as described. 6th. The combination, with the rail or rails, of the tie plate 2, having the rail chair ends whereon the rails are adapted to rest, said ends being wider than the rest of the rail, the vertical part or ledge 13 arranged parallel with the base of the rail or rails, the inwardly extending part having the raised middle portion 16, side trusses 22 extending from the rail chair ends thereto, the inner vertical part 19, said part grooved on its inner side whereby bearing surfaces are provided at the upper and lower surfaces thereof, and the brackets of braces 30 arranged, substantially as described, all of said parts being formed integrally. 7th. The combination, with the rail or rails, of the tie plate having the rail chair ends whereon the rails are adapted to rest, said ends being wider than the rest of the rail, said plate provided with a central depending truss having divided ends extending up to the edges of the plate, means for clamping the rail or rails thereon, the vertical part or ledge 13 arranged upon the upper surface of the plate and parallel with the rail base, and having the vertical portion 19 integrally tied or braced therewith, said vertical part, the web or webs having coincident bolt holes and bolts arranged therein whereby said part and web or webs are drawn into firm engagement, substantially as and for the purpose specified. 8th. The combination, with the rail or rails, of the tie plate 2, having the extending rail chair ends whereon the rails are adapted to rest, said ends being wider than the rest of the rail, said plate provided with an integral central depending truss, having

divided ends extending up to the edges of the plate, means for clamping the rail or rails thereon, the vertical part or ledge 13 arranged upon the upper surface of the plate and parallel with the rail base, the inwardly extending part jutting inward over the rail base and having the vertical portion 19 integrally tied or braced therewith, a fish plate to engage the base and the tread of the opposite side of the rail from said vertical point, the web, and fish plate provided with coincident bolt holes, bolts arranged therein and nuts thereon whereby said three parts are drawn into solid engagement, substantially as described. 9th. The combination, with the rail or rails, of the plate 2 whereon the same are adapted to rest, the ends of said plate being provided with the extended edges 23 and 31, notches 32 therein, the integral angle bar or brace having the inner part adapted to engage the web or webs of the rail or rails, clamping blocks for securing the same on the plate, the side of said plate opposite said angle bar which is integral with the plate being without vertical projections, the ties, and spikes 33 driven into the same and arranged in said notches, the heads of said spikes engaging the tops of the rail base or bases, substantially as and for the purpose specified. 10th. A truss fastening for rail joints comprising in combination with a rail, a plate having a truss formed integrally therewith, and arranged centrally on the under side thereof, with diagonal trusses also formed integrally with said plate, and extending from the ends of said central truss towards the edges of said plate, and means for securing the meeting ends of the rails to said plate, substantially as described. 11th. A truss fastening for rail joints, comprising in combination with the rails a plate having a truss formed integrally therewith, and arranged centrally on the under side of said plate, and transverse trusses also formed integrally with said plate and the central truss, and extending from the ends of said central truss towards the edges of said plate, substantially as described. 12th. A truss fastening for rail joints, comprising in combination with the rails a plate having a truss formed integrally therewith, and arranged centrally on the under side of said plate, and diagonal trusses also formed integrally with said plate and the central truss, and extending from the ends of said central truss towards the edges of said plate, substantially as described. 12th. The combination with the tie plate adapted to extend across and between adjoining ties, of a depending truss integral with said plate and having divided ends, an opening or openings through the web of said truss, the rails, the inclined portions 8 beneath said plate, the clamping blocks to engage the same and the rail bases, a bolt or bolts for fastening said blocks, the same having polygonal heads, and the inclined surface ribs between which said head or heads of the bolts is seated as described. 14th. The combination with the tie plates, of the depending truss thereof provided with divided ends all integral with said plate, means for clamping the rail or rails upon said plate, and a strengthening truss formed on the upper surface of said plate, substantially as described.

No. 40,190. Printing Telegraph.

(*Télégraphie autographique.*)

William Wallace Taylor, Mansfield, Massachusetts, and Ellen Maria Leavens, Providence, Rhode Island, U.S.A., 1st September, 1892; 6 years.

Claim.—1st. The combination, with the type levers of a typewriter, a second set of type levers, and dial plates connected with the typewriters and provided with contact points, of a contact arm for each dial provided with a contact point, a pointer fixed to the same spindle above said contact arm, a key carried by the pointer, electrically operated means for shifting the contact arm and pointer of the receiving apparatus, electrically operated devices for depressing the type levers of the same, and electrical connections, substantially as described. 2nd. The combination, with a typewriter type lever, of a disk provided with spaced projections, a spring actuated lever provided with a projection, a pinion connected with disk, a toothed rod extending in the path of the type lever, and means for shifting the lever projection into and out of contact with the disk projections, substantially as shown and described. 3rd. The combination, with the type levers of a typewriter, a disk provided with contact points, a central spindle, a contact arm insulated on the spindle and provided with a contact point, an indicating pointer attached to the spindle above the contact arm, and a key carried by the pointer, of a rod connected with a type lever and adapted to be operated by the pointer key, said rod being also connected with a lever connecting with a typewriter lever, an armature carried by the rod, a magnet carried by the pointer and arranged in a shunt circuit opposite the armature, and electrical connections, substantially as described. 4th. The combination, with the type levers of a typewriter, a disk provided with contact points, a central spindle, a contact arm carried by the spindle and insulated therefrom, said contact arm being provided with a contact point, of a ratchet wheel on the spindle, an electro-magnet, an armature provided with a pawl adapted to engage the ratchet wheel, and electrical connections, substantially as shown and described. 5th. In a telegraphic typewriter apparatus, the combination, with the type levers of a typewriter, of a gear rod 7, mounted in the standard 4, the gear 6, and disk 5 connected therewith, said disk being provided with projections 9, and studs 14, 15, the arm 11, having projection 12, and spring 13, and the upright 10, said parts being electrically connected and adapted to transmit in dots and dashes the character