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$\left\{\begin{array}{l}\text { Price in Oanada 82.50 per An. } \\ \text { United States }-82.50\end{array}\right.$

## INVENTIONS PA'IENTIED.

NOTE-Patents are granted for 15 years. The term of ycars for which the feo has been pald, is ziven after the date of the datent.

No. 30,306. Railway. (Chemin defer,)
Eben M. Boynton, West Nembury, ifass., U. S., $29 t h$ November, 1sss; 5 ycars.
Claim.-1st. A " bicyclo" milwas carriaks provided with lower compartments for passengors and lugeace, substantially as sot forth. 2nd. A "bicyolo" carriafe or car nrovided witt a door at tho top to receive and a donrat or noar tho bottom to dischargo freight, substantially as sct forth. 3ru. A "bioycle" carriako or car provided rith a skelaton metal frame for tho convopance of lumber, and othor. coarse freight, substantially as sot forth.
No. 30,307. Exhaust Nozzle Extension for Locomotives. (Extension de buse dn(puisement pour locomotices.)
Julius T. Leo, Mattoon, III., U.S., Ist December, 18ss; 5 sears.
Clain.-lst. Tho combination, with a locomotivo stack and stand pipo, of pipes of yarsing lengths. movably supported in tho stack above the stand pino, and uneans for moving the said pines to causo them to register allernately rith the stand pipe, substantially as dothem to renister ailernately with the stand pipe. substantinill as doscribed. 2nd. The combination, rith a locomotivo stand nipe, smoko box and smoke stack, of a sorics of pines of arious sizes and longths
held to swing in tho said smoko stack.and adapted to bo connectedat held to swing in the said smoke stack,and adapted to bo connected at
their loner ends with the npper end of the said stand pipe.subslantinltheir loper ends with the apperend of the said stand pipe.substantinl-
Is as shown and described. 3 ru. Tho combination, witha locomotivo lyas shown and described. 3rd. The combination, withallocomotivo
stand pipe, smoke box and smoke stack. of a serics of pipes of various sizes and lengths, and secured to cach other, snid pines being pir. oted by hangers in, and at the extreme top of said smoko stack, and a rod fastened to the said nines, and extendine to the cab of the locomotive, substantialiy as shorn and described.

## No. 30.308. Roller Valve. (Soupape d̀ rouleau.)

julius T. Lee, Mattoon, Ill., U.S., 1st December, Isss: 5 sears.
Claim.-lst. In a roller ralve, the combination, with a table held in a stesm chest and prorided with lonsitudinal strips or tracks, of springs supporting said tablo, and serew-rods for adjusting said tablo in the said steam chest, substantially as shomn and described. 2nd In a roller valro, the combination, with a table provided with longiiudinal strips or tracks, of springs supporting tho under side of said
table, vortical rods on which said springs aro coiled, said rods nlso table, Fortical rods on which said sprinfs aro coiled, said rods also
cuiding said table, screw-rods screwing into the cslindor, and passing Euiding said table. screm-rods screwing into the cslinder, and passing
through tho stcam chest corer, and throuch the said table, nuts ecrewing on the outer ends of the said serew-rods. nnd a collar formed on cach serew-rod and resting on top of tho said tablo, substantially as shown and described. 3rd. In a roller ralvo, tho combination. with a cylinder and steam chest, of a tablo provided with longitudinal strips or tracks, springs on which said tablo rests. a ecrewrod scrowing in the cylinder, and passing throuch the said able, and the etoam chest cover, a collar formed on each scrow-rod and resting on ton of the said tablo, and a nut haring a conical bottomand screning on tho outer end of tho said screw-ry substantially as shorrn and described. Ath. In a rolior ralve, the combination, rith a stcam chest. of a tablo beld adjustably in tho said steam chest, and provided with longitudinal sirips or tracks, rollors travelinc on the said table, a framo in which tho said rollers aro mounted taid fraido being provided with lugs nt onch end, nnd springs held on tho insido of thosaid stonm chest, and against which onerato said on the insido of tho said stonm chest, and against which onerato said
lugs on che rollor frame, substantialiy ns shown and described. 5th. ugs on the roller frame, substantially ns shown and described. 5th. In a rolice valro, tho oombination, with a cylinder and steam ches:. of a siddo rairo travoling in the said stoam chest, a covor fastoned on
the said slide ralro. rollers sumporting tho said cover, a framo in the said slide ralro. rollers sunporting tho said coyer, a framo in
mhich the said rollors aro mounted to turn a table held adjustably Which the said rollors aro nounted to turn a table held adjustably
in the ssid steam chest, and provided with longitudinal strips or in the said steam chest, and provided with longitudinal strips or
tracks, and springs held on tho said stoam chest and adapted to bo tracks, and springs hold on tho said stoam chest and adapted to bo
cngaged by lugs on the said rollor frame, substantially as shown and described.

## No. 30,309. Toe Weight. (Contre-poids de sabot.)

Charics W. Crannoll, Oberlin, Kan., U. S., 1st Decomber, 1888; 5 ycars.
Claim.-1at. In a too weikht. the shank B. the arm 83, porforatod wings bs, and tho weight C, substantially as spocified. 2nd. In a too Weight, the shank B, tho weikht C, the cap plato D. and the winged sleceve is, all combined and constructed, substantially as set forth. 3rd. In a too reight, the combination, of the shank 13 , the too woight C, and the cap plato D, all combined substantially as spesified.

## No. 30,310. Harness. (Harnais.)

Albion V. Tourgee, Mayvillo, N.Y., U.S., 1st Docembor, 1888; 5 sears.
Claim.-1st. A motallio harness comprising a collar composed of a tro-pari and pirotalls connectedarch-shaped ton nortion, havingadjustment holes in their lower portion, side bars havink similar adjustment holes in its upper portions. pirot pins or bolts conneotjng the respective sections prith capability of Ferticnl adjustment, tho one on the other, and a bottom connecting lock hinged to said sido bars, a dexiblo perforated saddlo-trec, flexible saddlo and girth. a sprink conneeted to tho saddto and haring porforations reaistoring With the perforations in tho treo, perforated hold back springs piv-
otally connected at their front ends to the collar, boles or torsots conotating said hold-back sprines and tree. stay sprines pivotally oonnected at their respectivo ends to the collar, and hold-back sminss. trace or tug fasteners, each composed of a tron-part hollom box, one part boing semi-cylindrical to adapt the same to reccive either round part boing semi cyinarical toadapt the same o receive either round or liat traces, spring trace supports, an olastic and plable motalio crupper brving one arm hinged to the back-band to permit of its lateral movement, and tho outer ond joined to parmat of vertical moyement, a button for holding the laterally movink arm in locked position, a connecting band or strap romorably and adjustably connecting said backband and crupper, a floxiblo metallic brecohing, a sectional hip.etrap having perforations in its lower onds to permit of its vartically mijustable connection with tho brocehing a connecting strap having a bution to oncago the perforations in tho backband, and havipg pivotal connection with the soctional hip-strap, braces pivotally connected at their onds respectivoly to the hip-strap, and brcechine traces havine longitudinally adjustable cookeso-carrying clamps, and cockoyes hinsed to said clamps, and roins haring jarned griping clamn-Connections, oppositely-facing snap-hooks to connect with the bridlo and a serics of hand-arasps. substantialls, as and for the purposo ect forth. 2nd. A motallic collar composed of a troopaid arch-shaped top portion having overlapping curved upporends, paid arch-shaped top portion having overlappiog curred upporends, and a pivot-hnefe connecting the same, a pair of straight sido bars ment thercon a two-part lock-plate having hingo and pirotal conment thercon a two-part lock-plate having hingo and pivotal con-
nection to tho lower cnds of tho sido bars, and dericos, substantially as described, for socuring said plates in locked position. Srd. A metallic collar baring a jointed arch-shaped spring top portion, straicht lower bars having transrersels and outward-bent lower ends, means. substantially as described, for pirotally and adjustably conneoting the unper and lower parts of the collar, and inwardly-curved sheot metal epring pads or puffs at the lower portion of the collar, and inwardly curved metallic protecting pads securcd to the lowor part of the arch, substantially as set forth. fth. Amotallic collar having a jointed arch-shaped spring tod portion, straisht lower bars having transyorsoly and outwardly-bont lowor onds, means, substantinlly as described, for pivotally and adjustably connectine tho uppor and lowor parts of tho collar and invardly ourved metallio protocting pads sccured to the lower part of tho arch, substantially ate sot forth. sth. The combination, with a sectional coliar, substantially as do. scribod, of the lock bercin describod, for conneoting thn lower onds of the neck bars, of a collar consistiog of a pair of plates hinged rospectively to the lower ends of said neek bars, a pair of slotted plates pirotally connceted to said hinso bars, and having hoadod nins to oncafosaid siats,and a slotted kes nivotally cnanected to oncorthon said slotted plates aro connected tokother by tho ongafoment thererith, of tho headed pins to permit of ssid key being slidden betpeon eaid plates, and engagingono or more of said hoaded pins and gripping tho lock plato, substantially as sct forth. 6th. A metallic traco or tug fastuncr composed of tro outhardly-curred parts, tho outer part being semi-cylindrical to adapt said fastener to

