

No. 32,478. Fire Escape. (*Sauveteur d'incendie.*)

Rev. Arthur E. Jones, Montreal, Que., 11th October, 1889; 5 years.

Claim.—1st. The combination in a fire escape, of the floors or platforms having openings *g*, with posts or tubes extending through the openings *g* to the floors or platforms alternately, substantially as described. 2nd. The combination in a fire escape, of the posts or tubes *f*, having inlet and outlet pipes, as described, with floors or platforms *c*, having openings *g*, the whole substantially as described. 3rd. The combination in a fire escape, of the posts or tubes *f*, floors, or platforms, *c*, having openings *g*, and spring platforms *h*, the whole substantially as described. 4th. The combination in a fire escape, of the removable floors or platforms *c*, having openings *g*, with posts or tubes *f*, the whole substantially as described.

No. 32,479. Car Axle Box and Bearing.

(*Boîte et coussinet de tourillon.*)

George W. Fulmer and Dan T. Fry, Water Valley, Miss., U. S., 11th October, 1889; 5 years.

Claim.—1st. In a car axle bearing, the combination, with the wheel having a journal, and the flanged roller bearing supported on the axle journal, and having a shaft or journal projecting from its inner side only, of the box supported on the shaft of the said roller, substantially as described. 2nd. The combination of a wheel, having a journal, the flanged roller supported on the said journal, and having a shaft or journal projecting from its said inner side, said shaft having a flange, the box having a shoulder to rest against one side of the flange, and the brass fitted in the box and adapted to bear against the other side of the flange, substantially as described. 3rd. The combination of the wheel, having a journal, the roller supported on the journal and having a shaft projecting from its inner side, said shaft having a flange on its inner end, the box mounted on the shaft and having a shoulder which is adapted to bear against one side of the flange, the brass interposed between the shaft and the box, and having its end adapted to bear against the other side of the flange, and having an extension on its back, which extension is fitted in a corresponding recess in the box, substantially as described. 4th. The combination, with the wheel having a journal, and the flanged roller supported on the journal and having a shaft on its inner side only, of the box mounted on the said shaft, and having a recess in its side to give clearance for the flange of the roller, whereby the shaft, the journal and the flange of the said roller are in approximately the same vertical plane, substantially as described. 5th. In a car axle bearing, the combination, with the box *D*, having a recess *h* in its side, of the guide block *I* fitted in the said recess, and having a limited vertical movement, substantially as described. 6th. In a car axle bearing, the combination, with the box *D*, having a recess *m* in its side, of the guide block fitted in the said recess, and having the shoulder *i* and the wheel having a corresponding shoulder *a'* on its journal, substantially as described for the purpose specified. 7th. The combination of the wheel having a shoulder on its journal, the flanged roller supported on the said journal, and having a shaft on its inner side, the box mounted on the said shaft, having a recess in its side, and the guide block fitted in the said recess and having a corresponding shoulder to fit against the shoulder on said journal, substantially as described. 8th. The herein described box, having a recess in its front side, near its upper end, and having its lower portion hollow, and provided with an opening leading from the hollow portion, said box having openings for the reception of the journals, substantially as described for the purpose specified.

No. 32,480. Steam Boiler.

(*Chaudière à vapeur.*)

George Kingsley, Lowell, Mass., U. S., 11th October, 1889; 5 years.

Claim.—The combination, with a double shell horizontal boiler having an inner and outer fire space and a water space between, of a series of inclined laterally projecting tubes *C* screwed into the inner shell, so as to communicate with the water space, and having their inner ends closed and elevated and projecting into the inner fire space, and the stay bolts *c* alternating with the tubes *C* and connecting the shells, substantially as shown and described.

No. 32,481. Sugar Sap Evaporator.

(*Appareil évaporatoire de l'eau saccharine.*)

Clark Hall and William H. Wright, East Farnham, Que., 11th October, 1889; 5 years.

Claim.—The combination, with an evaporator, of the small compartments *F*, *F'*, with their openings closed by the slides *H*, *H'*, the feed tube or pipe *L* for conveying the sap from the spout *D* in the back of the heater *C* into the small compartments *F*, *F'*, or into the back end of the deep flues *K*, *K'*, substantially as and for the purpose hereinbefore set forth.

No. 32,482. Reel Support for Harvesters.

(*Support de râtelier de moissonneuses.*)

John S. Davis, Cleveland, Ohio, U. S., 11th October, 1889; 5 years.

Claim.—1st. An overhanging support for the outer end of a reel shaft, consisting of the post *B'*, rigidly attached near the rear side of the platform, the thrust bar *B* pivotally secured at its heel near the lower end of the post, and the tie-rod *B''* extending from the top of the post to the top of the bar, and means whereby its length may be adjusted to change the position of the reel shaft, substantially as hereinbefore set forth. 2nd. An overhanging adjustable support for the outer end of a reel shaft, consisting of the post *B'* rigidly secured to the platform near its rear, the brace bar *B* adjustably attached at its heel near the lower end of the post by a bolt *b*, and the series of holes *b'*, *b''*, the tie-rod *B''* passing from the top of the bar through the top of the post, screw-threaded at its end and provided with adjusting

nuts, substantially as hereinbefore set forth. 3rd. The combination of the reel shaft, the independently adjustable supports at its ends with bearing boxes mounted in universal joints on the supports, substantially as hereinbefore set forth. 4th. The combination of the reel shaft, the driving wheel screwed thereon, as described, the hub of the spider *G'* rigidly secured upon the shaft, the bearing box *F* between the driving wheel and the spider hub, and the spacing thimble or sleeve slightly longer than the bearing box within which it embraces the shaft, as and for the purpose hereinbefore set forth.

No. 32,483. Combined Wood and Coal Stove.

(*Poêle à bois et à charbon.*)

Ophir L. Gadoury, St. Placide, Que., 11th October, 1889; 5 years.

Claim.—1st. A stove, having two compartments, one for burning coal and one for wood, and an oven having flues and dampers, so that either compartment may be used, substantially as shown and described. 2nd. In a cooking stove, the combination in a stove *A*, having a partition *C*, doors *B*, *D* and *E*, fire pot *F*, spider *G*, shaker *H*, of the oven *I* having flues *K*, *K* and *M*, and dampers *L*, substantially as shown and described.

No. 32,484. Boring Machine.

(*Machine à forer.*)

Harlin Longwell, Elkland, Penn., U. S., 11th October, 1889; 5 years.

Claim.—1st. In a wood boring and metal drilling machine, the combination, with a bracket frame *B* and perforated and threaded bosses *b*, *b'*, of a hollow feed screw *H*, a drill spindle *L*, a set screw *C*, a sliding bracket plate *I*, a driving bevel gear wheel *D* and a bevel pinion *E*, substantially as set forth. 2nd. In a wood boring and metal drilling machine, the combination, with a hollow feed screw *H*, a drill spindle *L*, a balance wheel *G*, a bevel pinion *E* and drill chuck *F*, of a bracket frame *B*, a sliding bracket plate *I*, a bevel gear wheel *D*, a frictional feeding device that transmits motion from the drill spindle to the feed screw, and a crank handle *J*, substantially as set forth. 3rd. In a wood-boring and metal drilling machine, the combination, with a bracket frame *B*, of a hollow feed screw *H*, a drill spindle *L*, an adjustable frictional feeding device that transmits rotary motion from the drill spindle to the feed screw, a bevel gear wheel *D*, a bevel pinion *E*, a crank *J*, a balance wheel *G* and a sliding bracket plate *I*, substantially as set forth.

No. 32,485. Electric Clock.

(*Horloge électrique.*)

George Hess, Zurich, Ont., 11th October, 1889; 5 years.

Claim.—1st. The above described apparatus for operating any number of clocks at any distance apart, by transmitting thereto the motion of a single pendulum, consisting of a pendulum rod *A*, connecting rod *B* pivoted at *a* to frame work and carrying on its lower end the "impulse" *C*, which vibrates the current changer *D*, and with it the small roller *E*, thereby changing the current from one to the other, of a pair of metal strips *H*, *H'*, which is thence transmitted by wires *J*, *M* to electro-magnets *K*, *K'*, which operate an armature *L*, and with it the connecting rod and pendulum, substantially as shown and specified. 2nd. The above described apparatus for communicating motion to the hands of the clocks, consisting of the electro-magnets *K*, *K'* and *N*, armature *O*, connecting wire *c*, dog *P*, ratchet wheel *Q*, screw pinion *R*, wheels *S* and *Z* and coil spring *T*, all arranged and operated as shown and specified. 3rd. The above described apparatus for communicating motion to the striking mechanism of clocks, consisting of an electric motor *U*, screw pinion *V*, cog wheel *W*, pinion *X* and rack *Y*, all arranged and operating substantially as shown and specified and for the purpose hereinbefore set forth.

No. 32,486. Belt Gearing.

(*Communication de mouvement par courroies.*)

John A. Lough, Chetopa, Kan., U. S., 11th October, 1889; 5 years.

Claim.—The combination, with two adjacent pulleys, and the belt *B* passed around said pulleys, of the main driving belt *C* passing over the belt *B*, and in contact with it points where it passes around both pulleys, substantially as set forth.

No. 32,487. Automatic Car Coupler.

(*Attelage de chars automatique.*)

James A. Hinson, Des Moines, Iowa, U. S., 11th October, 1889; 5 years.

Claim.—1st. The combination, in a car-coupler, of the draw-bar *A* having the hollow offset *c*, the arms *B*, *B'*, the former having the flanges *d* cast integral therewith, the recesses *e* formed in said flanges, the slots *f* entering said recesses, the movable jaw *C* having the branches *b*, *b'*, the oblong journals *f'* cast with said jaws, the pivoted latch *E*, and means for operating said latch, all formed as and for the purpose hereinbefore set forth. 2nd. The combination, in a car-coupler, of the hollow draw-bar *A* having the offset *c*, and arms *B*, *B'* cast therewith, the latch *E* pivoted in said draw-bar, the spring bearing against said latch, the chain connected to said latch, a rod connected to said chain, and the movable jaw *C* pivoted to said arm *B* and having the branches *b*, *b'*, one of said branches being adapted to swing against the latch, all formed as and for the purpose hereinbefore set forth. 3rd. A movable jaw *C* for a car-coupler consisting of the branches *b*, *b'*, the former having the hook *e* cast therewith and its end tapered, the oblong journals *f'* formed at the junction of the branches *b*, *b'*, the curved shoulders *g'* formed on the ends of branch *b'*, the slot or pocket *d'* formed in said branch, the opening or perforation *e'* intersecting said slot or pocket, and the curved grooves *p'* formed in the edge of said jaw, all formed as and for the purpose hereinbefore set