

mechanism mounted on said carriage, from which said blade is suspended, and a counterbalance device relieving said adjusting mechanism from the weight (or a portion of the weight) of said scraper-blade, as set forth. 5th. The combination, with a vertically adjustable scraper blade supported in connection with a carriage, mounted on front and rear wheels, of a thrust-frame connected with the carriage by means of a spring attachment at the rear or hinging portion of said thrust frame, said spring being arranged to exert a lateral force on said thrust frame, for the purpose set forth. 6th. The combination, with the push frame C, of a torsionally strained bar connecting the rear of said frame with the carriage, for the purposes set forth. 7th. The combination, with the main carriage frame A, rear axle B and push frame C, of the check pieces *a*, *a'* fixed to the thrust-frame, the rotation sleeves *b*, *b'*, and the torsionally strained bar *b* confined by said check pieces and bearings, in the manner substantially as set forth. 8th. The combination, with the push-frame and scraper blade, of a compound connecting hinge having two pivots perpendicular to each other, seating sockets sustaining the thrust-strain and facilities for rocking action, substantially as described, to accommodate the oblique reversible inclined and pitch-adjustments of said blade, as hereinbefore set forth. 9th. The apex hinge F, composed of an attaching plate having jaws *f*, *f'*, the horizontally-swinging laterally bevelled disk *F*, carrying the cylinder *F*, the connecting plate *D* and the vertical and horizontal pivot-pins *F*, *F'*, in combination with an adjustable scraper and its supporting bars or frame, substantially as and for the purpose set forth. 10th. In combination with the diagonally adjustable scraper blade and push-frame, an adjustable segment of semicircle formed of a wrought or rolled flanged bar, provided with the downwardly-extending ends secured or hinged to the rear of said blade, substantially as and for the purpose set forth. 11th. In combination with the diagonally adjustable blade and push frame, the semicircle formed of a wrought T bar having outwardly-extending ends, provided with downwardly-inclined hinge pieces, as *E*, the lower extremities of which are connected with the blade by hinges, and their upper portions provided with eyes or loops, and the suspending rods attached thereto, substantially as set forth. 12th. In combination, substantially as described, the push-frame, the scraper-blade connected thereto by the compound apex hinge for universal adjustment, the semicircle arranged above said push frame and provided with downwardly-extending hinging ends, connected by hinge plates to the back of the blade near its lower edge, in line with said apex hinge, and the guiding and locking devices disposed above, and supported on said push-frame at the rear of said semicircle, for the purposes set forth. 13th. The combination, in a wheeled road machine, of an adjustable scraper-blade, an adjusting semicircle hinged to the rear of said blade, suspending-rods connected to the ends of said semicircle, mechanism for elevating and depressing said rods, and devices for locking said semicircle at different positions of angular adjustment, substantially as set forth. 14th. The suspension-ring *M*, having head-disk *k* and lugs *e*, in combination with the semicircle, having the end pieces *E*, provided with the opening *e*, and the hooked suspension-rod *K*, substantially as set forth. 15th. The combination of the diagonally adjustable blade, the semicircle connected to the rear thereof, the locking bolt *G*, having a lever *H* extending up through the carriage-platforms, and the foot-slide *A* arranged on said lever, substantially as and for the purpose set forth. 16th. The combination, with a diagonal scraper supported in connection with a wheeled carriage and adapted for upward and downward adjustment, of an operating wheel (or wheels) for effecting such adjustment, adapted to act as a momentum or fly wheel, whereby the peripheral weight of said wheel is utilized to assist in the adjustment of the blade, substantially as hereinbefore explained. 17th. In a road-machine, the combination of a scraper-blade adapted for upward and downward adjustment at its respective ends, an operating hand-wheel (or wheels) connected therewith for effecting such adjustment, and a brake (or brakes) acting against said wheel, to arrest movement thereof and retain the parts, substantially as set forth. 18th. In a wheeled road-scraper, the combination of a scraper-blade adapted for upward and downward adjustment at its respective ends, an operating-wheel (or wheels) connected therewith, for effecting such adjustment, and adapted for developing peripheral momentum for throwing the blade up or down, and a brake or stop to arrest the movement of said wheel and retain the parts in position, substantially as set forth. 19th. The combination of an adjustable scraper, a vertically-movable rack connected for raising or depressing the end of said scraper, a sprocket-wheel and gear connected for working said rack, a second sprocket and hand-wheel, and a chain (or band) connecting said first and second sprockets, substantially as and for the purpose set forth. 20th. The combination, substantially as hereinbefore described, of the hand-wheel *L* carrying the sprocket (or sheave) *M*, the sprocket (or sheave) *M* carrying the gear *L*, the connecting chain (or band) *m*, the rack *L*, arm *J*, suspending rod *K*, and adjustable scraper mechanism, for the purpose set forth. 21st. In combination, substantially as hereinbefore described, the carriage mounted on front and rear axles and wheels, the adjustable scraper-blade, the push-frame sustaining said blade from the rear, a semicircle and lock device for retaining said blade in diagonal relation to said push-frame, the swinging crane in connection with vertically-moving racks, rods connecting said cranes and the blade-supporting mechanism, a pair of hand-wheels and sprockets mounted on a transverse shaft, above the carriage platform, with connecting gearing for operating said racks and brake devices engaging therewith, for the purpose set forth. 22nd. The combination, substantially as hereinbefore described, of the adjustable scraper blade, the racks *L*, connected for lifting and depressing the ends thereof, the pinions *L*, the hand-wheels *M*, sprocket-wheels *L* and *M*, and adjustable tension-chains *m*, for the purpose set forth. 23rd. The combination, in a road-machine, of an adjustable scraper-blade, a blade-adjusting mechanism controlled by a reversible hand-wheel, and a counterbalance device for relieving said hand-wheel from the excess of strain on the upward throw or movement of the blade, whereby the effective momentum of said hand wheel is rendered approximately uniform for either upward or downward adjustment of the blade. 24th. The combination, with the hand-wheels, of the brake or holding devices having a pedal bar *P*, arranged for operating either of the brakes

alone or both simultaneously, substantially as set forth. 25th. In a diagonal road machine, the combination of a scraper-blade or bar hinged for backward or forward tipping action, and a screw for varying the backward and forward pitch and sustaining said blade at positions of adjustment, substantially as set forth. 26th. In combination with an adjustable scraper-bar or blade hinged for backward or forward pitch adjustment, a screw device for controlling the pitch adjustment of said blade, a geared nut upon said screw supported in a swiveling head block, and means for revolving said geared nut for effecting adjustment of the mechanism, substantially as set forth. 27th. In a road grading machine having a scraper-bar or blade supported beneath a carriage mounted on front and rear axles and wheels, and hinged for backward and forward pitch adjustment, in combination with said blade and its supporting frame, a screw and nut mechanism for effecting the pitch adjustment, and means for operating said screw mechanism under control of the attendant from his position upon the carriage-platform, substantially as set forth. 28th. The combination of a diagonally adjustable scraper-blade hinged for backward and forward tipping action to a diagonally adjustable frame or semicircle, a pitch-adjusting screw and actuating mechanism mounted in connection with said frame and movable therewith, to maintain its perpendicular relation to the blade, as said blade is swung from one position of diagonal adjustment to another, substantially as set forth. 29th. The combination of the push-frame C, the semicircle *E* having a cross-bar *E*, the blade *D* hinged, near its lower edge, to the apex of said push-frame and depending ends of said semicircle, a screw *S* hinged to the upper part of the blade, the chair *r* fixed on said cross-bar, a rocking head mounted in said chair, a nut working on said screw and confined in said head, and means for revolving said nut, substantially as and for the purpose set forth. 30th. The combination, substantially as described, of the scraper-blade, the support-bar in rear of said blade, the chair fixed thereon, the screw *S* connected with the blade, the rocking head mounted in said chair, the geared screw-nut and operating-gear confined in said head, the shaft *R* having a universal coupling connected with said gear and the operating-wheel *R*, for the purposes set forth. 31st. The combination with the scraper-blade in a diagonal road-machine, of an attachable re-enforce or cutting edge formed of a vertically-curved hardened steel-plate, the edges whereof are reduced by bevels which incline in the same direction as the curvature of the plate, substantially as shown and described. 32nd. The landside-plate formed of a plain sheet of metal, with its edge *u* curved as shown, in combination with the attaching-plate *W*, having a slot *W*, and cylindrical rib *W*, the blade *D* and brace *X*, substantially as set forth. 33rd. The adjustable land-side brace composed of telescoping male and female parts *X*, *X'*, in combination with the swinging land-side plate and scraper-blade, and the locking pin or device *X*, substantially as set forth. 34th. In a diagonal road-machine, the combination, with the carriage-body and rear axle of a check-casting *a*, provided with a lug or recess *a'*, for sustaining the end of a detachable temporary thrust brace *a*, substantially as and for the purposes set forth. 35th. The combination, substantially as described, of the hollow pintle-block rigidly secured between the arch-irons *A*, the tongue-plate *T* secured to the tongue and axle, the pintle *V* having its head or lugs *v* confined within said block, as shown, with its end extending down in rear of the axle, and the guard *T* limiting the movement of parts in relation to each other, for the purpose set forth. 36th. In a road-machine, in combination with the arched iron *A* at the forward part of the carriage-body, the overhanging foot-board *A* and supports *A*, substantially as and for the purpose set forth. 37th. The combination, with the arch-irons *A* in a road-machine, of the yoke *Y*, the stay *Y* connected to said yoke at a position above the pintle-bolt, and having its forward end connected to the pole *T*, substantially as and for the purpose set forth. 38th. The combination of the arch-frames *A*, the yoke *Y* pivoted to swing backward between the same, the stay-chain *Y* having one end attached to said yoke, the tongue or pole *T*, the link-locking hook *Y*, secured to said pole and adapted for detachably retaining the links of said chain, substantially as and for the purpose set forth.

No. 24,764. Combined Eraser and Knife.

(*Grattoir et Canif Combints.*)

Edward C. Manter and Mary A. Gesber, assignees of Thomas Holdsworth, Elyria, Ohio, U.S., 19th August, 1886; 5 years.

Claim.—1st. A combined knife and eraser consisting of a hollow handle, formed of the parts *d* and *f* and having a slot *o*, in combination with a body *a* constructed to slide within the handle and having blades *b*, *c*, and finger-piece *j*, substantially as shown. 2nd. The hollow handle in combination with sliding blades, flat spring *g* arranged to bear against the side of the blade and finger-piece *j*, substantially as shown. 3rd. The combination of the sliding blades having a finger-piece and locking-pin, with a handle having open ends and a locking pin recess or opening, substantially as shown. 4th. A body *a* having two blades made integral therewith, in combination with an open-ended handle, and finger-piece, and locking means, and a flat spring fixed to handle and arranged to bear against the part *a*, substantially as shown.

No. 24,765. Apparatus for Receiving Payment for, and Delivering Prepaid Goods. (*Appareil pour Recevoir le Prix des Marchandises et les Livrer.*)

Porcival Everitt, London, Eng., 20th August, 1886; 5 years.

Claim.—1st. In apparatus for receiving payment for, and for delivering prepaid goods, the arrangement of mechanism for preventing the blocking of the apparatus, the said mechanism being arranged and operating substantially as hereinbefore described and illustrated in the accompanying drawings. 2nd. In apparatus for receiving payment for, and for delivering prepaid goods, the combination, with the rack of the locking apparatus, of a drop plate for preventing more than one article being procured for the payment of the one amount which unlocks the drawer, the said drop plate being constructed,