No. 40,554. Bicycle. (*Bicycle.*)

Jesse Anthony and Arthur Everitt, both of Albuquergue, New Mexico, U.S.A., 3rd October, 1892; 6 years.

Claim.—1st. The combination with a drive wheel of a bicycle, of two sprocket wheels arranged to turn on the hub thereof, a crank or pedal shaft, a large sprocket wheel and a small sprocket wheel respectively secured to said shaft, sprocket chains connecting the sprocket wheels in pairs, and a clutch for fixing either of the sprocket wheels on the drive wheel shaft or hub with said drive wheel, substantially as specified. 2nd. The combination with the drive wheel of a bicycle, and the crank or pedal shaft thereof, connected by a gearing of different size, a clutch for disengaging one set of gearing from the drive wheel and engaging the other set with said wheel, said clutch being also adapted to disengage the drive wheel from the crank or pedal shaft, so that said shaft may remain idle while the drive wheel is turning, substantially as specified. 3rd. The combination with the frame of a bicycle, of a forked angle lever pivoted thereto, rods pivotally connecting the angle lever with a hand lever pivoted to the handle bar of the machine, a disc adapted to slide on the hub box of the drive wheel, bolts or rods carried by said disc, and speeding gear arranged on the hub of said wheel, substantially as specified. 4th. The combination with the drive wheel of a bicycle, of the disc adapted to slide thereon and carrying the rods or bolts, the speeding sprockets arranged loosely on the hub or sleeve of said wheel, and having holes to receive the bolts or rods, the pivoted angle levers having one end forked to embrace the sliding disc, a spring pressing against said lever, a hand lever carrying a catch and pivoted at one end to the handle bar, and rods and levers pivotally connecting the handle lever with the forked angle lever, whereby the clutch bolt or rod may be engaged and disengaged from one or both of the speeding sprockets on the drive, substantially as specified. 5th. In a bicycle, the combination with speeding mechanism, substantially as described, of the handle bar carrying the bevelled tooth or lug, the handle lever pivoted to the handle bar and carrying the yielding tooth catch, whereby the speeding mechanism may be changed from fast to slow, and the driving wheel allowed to run without moving the pedals, substantially as specified. 6th. The combination, with a bicycle, of mechanism for varying the speed thereof while in motion, said mechanism being also adapted to disengage the drive shaft or pedal shaft from the drive wheel while the latter is allowed to run, and comprising a slide clutch on the hub of the drive shaft, an angle lever for engaging said clutch, and pivoted to the frame of the machine, a hand lever pivoted to the handle bar, a spring for normally holding the clutch in one position, and a series of rods and levers for connecting the angle lever with the handle lever, substantially as specified. 7th. The combination, with a bicycle, of mechanism for varying the speed thereof while in motion, said mechanism being also adapted to allow the pedals and shaft to remain idle while the drive wheel is in motion, and consists of a clutch on the hub of the drive wheel, a spring pressed angle lever adapted to engage the clutch, a hand lever pivoted to the hand bar, a yielding catch secured to said lever and adapted to engage the hand bar at pre-determined points, and a series of rods and levers connecting the angle lever with the hand lever, substantially as specified.

No. 40,555. Cornice and Eave Trough Brake Machine. (*Machine pour donner la forme aux corniche et larmiers de toit.*)

John M. Brown and Nathan G. Boggs, both of Hamilton, Ontario, Canada, 3rd October, 1892; 6 years.

Claim.—1st. In a cornice brake machine, the combination of the swivel attachments D, connected by the longitudinal rod *d*, and provided with adjustable flanged bearings I, in connection with the vertical screws J, and hand wheels K, substantially as and for the purpose hereinbefore set forth. 2nd. The combination, in a cornice brake machine, of the swivel attachments D, rod *d*, bearings I, screws J, and the toothed circular segment L, substantially as and for the purpose hereinbefore set forth. 3rd. The combination, in a cornice brake machine, of the rigid bearings *n*, attached to the legs A of machine, the longitudinal shaft *s*, the pinion wheels *m* secured thereto, the circular segment L, and the swivels D, having rod *d*, and provided with bearings I, and screws J, substantially as and for the purpose hereinbefore set forth. 4th. The combination, in a cornice brake machine, of the fourth leaf E, having standards H, with longitudinal rods F through the same, and terminating in the two adjustable bearings I, in the attached swivels D, substantially as and for the purpose hereinbefore set forth. 5th. In a cornice brake machine, the swivels D, provided with rod *d*, bearings I, screws J, and segments L, in combination with the fourth leaf E, having standard H, with shaft F, the latch lock *e*, and the frame A, having bearings *n*, shaft *s*, the toothed wheels *m*, and the eccentric clamps *o*, attached to the front leaf B, substantially as and for the purpose hereinbefore set forth.

No. 40,556. Brake Beam and Shoe Head for Railway Cars. (*Sommiers de frein pour chars de chemin de fer.*)

Charles Thomas Schoen and Lewis Walter Newton, both of Allegheny, Pennsylvania, U. S. A., 3rd October, 1892, 6 years.

Claim.—1st. A brake-beam composed of an arched tensile member and an arched compression member connected at their end constructed of plate metal longitudinally corrugated and provided with a transverse strut, substantially as described. 2nd. A diamond-form brake-beam composed of a tensile bar and a compression bar made of metal plates longitudinally corrugated and having the general outline of an obtuse angle and united, substantially as set forth. 3rd. A pressed-steel brake-beam having a tensile bar and a compression bar constructed of plates corrugated longitudinally and made as obtuse angles, united at their ends and braced transversely, substantially as described. 4th. A brake-beam having a tensile bar and a compression bar combined with a strut having one end looped to receive one of the bars and provided with tongues to bind the bar and having its other end shaped to receive the other bar, subsequentially as described. 5th. A brake-beam containing a tensile bar and a compression bar, combined with a strut looped about one of the bars and having its other end shaped to receive the other bar, and a saddle interposed between this end and said bar, substantially as and for the purpose described. 6th. In a brake-beam, an obtuse-angled tensile bar and a similar compression bar united at their ends by looping the former over and upon the latter, and a strut embracing one of the bars and abuting against the other bar, substantially as described. 7th. A pressed-steel brake-shoe head having sides to form a socket to receive the brake-shoe, a tang or shank having in its end a bolt-hole and a countersink in the body of the head, also having a bolt-hole in alignment with the bolt-hole in the shank or tang, substantially as and for the purpose described.

No. 40,557. Pulp Dryer. (*Séchoir pour la pulpe.*)

Samuel S. Stevens, Hoosick, New York, U.S.A., 4th October, 1892; 6 years.

Claim.—1st. In a centrifugal pulp drier, the combination, with a frustro-conical, open ended, perforated shell, revoluble about a horizontal axis and provided with a roller engaging peripheral flange, of shell supporting friction rollers and means for communicating revoluble movements to the shell, a wet pulp supply pipe leading into the smaller end of the shell, a stripper rotary in movable bearings, by which it is adjustably supported within the shell, means for communicating rotary movements to the stripper, and means for communicating lateral movements to the stripper shaft bearings, substantially as described. 2nd. In a centrifugal pulp drier, the combination, with an open ended, perforated shell, revoluble about a horizontal axis and provided with a roller engaging peripheral flange, of shell supporting friction rollers and means for communicating rotary movements to such rollers, and through them to the shell, a wet supply pipe leading into one end of the shell, and means for stripping the pulp from the interior of the shell, substantially as described. 3rd. In a centrifugal pulp drier, the combination, with an open ended, perforated shell, revoluble about a horizontal axis, of shell supporting friction rollers, means for communicating revoluble movements to such shell, a wet pulp supply pipe leading into one end of the shell, a stripper located within the shell, and rotary in pendent oscillatory bearings, means for rotating the stripper, and means for communicating oscillatory movements to the stripper bearings, substantially as described. 4th. In a centrifugal pulp drier, the combination, with an open ended, perforated frustro-conical shell, revoluble about a central horizontal axis, of shell supporting friction rollers, means for communicating revoluble movements to the shell, a wet pulp supply pipe leading into the smaller end of the shell, a stripper located within the shell and rotary upon an axis parallel with a tapered side of the shell, and means for communicating rotary movements to such stripper, substantially as described.

No. 40,558. Box Machine. (*Machine à boîte.*)

Rollin L. Coons, Seelyville, Pennsylvania, U.S.A., 4th October, 1892; 6 years.

Claim.—1st. In combination, the bed A, the former about which the strips are to be folded, said former being raised above the bed to permit the passage of the strip between them, a feed slide, and folding mechanism, substantially as described. 2nd. In combination, the bed A, the former raised above the same to permit the passage of a strip between them, the holder for the strips having one of its walls held above the bed A, to permit the strip to pass therefrom, and a feed slide and folding mechanism, substantially as described. 3rd. In a box machine and in combination, with folding mechanism, a strip holder consisting of pairs of posts, means for adjusting said pairs and means for adjusting the posts of each pair, substantially as described. 4th. In a box machine and in combination, folding mechanism, a strip holder having adjustable posts, and steam supply pipes leading to the adjustable posts, whereby the strip may be subjected to steam at different points, substantially as described. 5th. In a box machine and in combination, folding mechanism, a strip feed slide G,