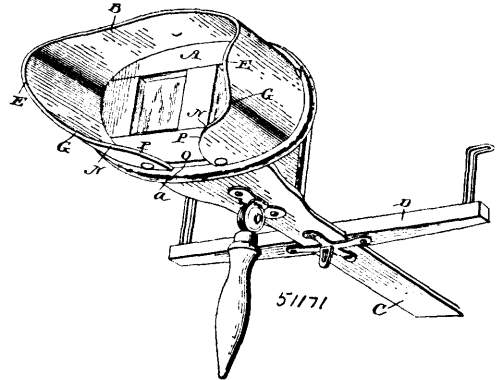


widening cams and with means for positively throwing the widening cams into operative and inoperative positions, a lever for actuating said means, a spring actuated latch for locking said lever, and an automatic mechanism for actuating said lever. 12th. In a circular knitting machine, the combination of a knitting head whereof the rotary cam cylinder is provided with narrowing and widening cams, and with means for rendering either set of said cams operative while rendering the other set inoperative, a lever for actuating said means, a spring actuated latch for locking said lever, an automatic mechanism for actuating said lever, and an automatic mechanism for releasing said latch. 13th. In a circular knitting machine, the combination of a knitting head whereof the rotary cam cylinder is provided with narrowing and widening cams and with means for rendering either set of said cams operative while rendering the other set inoperative, a lever for actuating said means, a spring actuated latch for locking said lever, a radial slide carrying a cam for engaging said lever, a stud for releasing said latch and automatic means for actuating said radial slide. 14th. In a circular knitting machine, the combination of a knitting head whereof the rotary cam cylinder is provided with narrowing and widening cams, and with means for rendering either set of said cams operative while rendering the other set inoperative, a lever for actuating said means, a spring actuated latch for locking said lever, a radial slide carrying a cam for engaging said lever, a stud for releasing said latch, and automatic means for actuating said radial slide, said mechanism being adapted to actuate said slide a full stroke for acting upon said lever, and a partial stroke for releasing said spring actuated latch. 15th. In a knitting machine, the combination of a knitting head, a yarn tube adapted to pass the main and reinforcing yarns, and a sliding yarn separating blade within said tube adapted to separate the main and reinforcing yarns when the latter is not required for use, and to permit fibrous contact thereof when both yarns are required. 16th. In a knitting machine, the combination of a knitting head, a yarn tube adapted to pass the main and reinforcing yarns, a sliding yarn separating blade within said tube adapted to separate the main and reinforcing yarns when the latter is not required for use and to permit fibrous contact thereof when both yarns are required, a fixed shear blade in said tube, and a movable shear blade whereby the reinforcing yarn is cut off when not required. 17th. In a knitting machine, the combination of a knitting head machine, a yarn tube for the passage of the main and reinforcing yarns, a slide ring on said tube, a yarn separating blade connected to said ring, automatic mechanism for operating said slide ring in either direction at the required time for separating said yarns or permitting fibrous contact thereof. 18th. In a knitting machine, the combination of a knitting head, a yarn tube for the passage of the main and reinforcing yarns, a slide ring on said tube, a yarn separating blade connected to said ring, automatic mechanism for operating said slide ring in either direction at the required time for separating said yarns or permitting fibrous contact thereof, and a cut-off for the reinforcing yarn. 19th. In a knitting machine, the combination of a knitting head, a yarn guiding tube, a guide block provided with eyes for the yarn passing into said tube, a yarn separating blade adapted to slide in said tube to separate the main and reinforcing yarns or permit fibrous contact thereof, a cutting-off mechanism for the reinforcing yarn, a clamp for holding the cut-off end of said yarn, and automatic means for releasing said clamp when the blade is drawn back. 20th. The combination with a knitting mechanism of a yarn guide, and a yarn holder consisting of an inverted U-shaped clamp, one leg of which projects into said yarn guide and serves to clamp the yarn. 21st. In a knitting machine, the combination of a knitting head, means for supplying the main and reinforcing yarns, a cut off for the reinforcing yarn, a pivoted arm provided with a yarn guide through which the reinforcing yarn is passed, and means for actuating said pivoted arm after the cut off end has been clamped to effect a slack in the reinforcing yarn preparatory to the feeding thereof. 22nd. In a knitting machine, the combination of a knitting mechanism, a yarn tube for guiding the main and reinforcing yarns, a pivoted arm provided with a yarn guide, a cut off mechanism between said pivoted arm and the yarn tube, a yarn clamp between the cut off mechanism and the pivoted arm, and means for actuating the cut off mechanism and yarn clamp and subsequently to the latter the pivoted arm, whereby a slack in the yarn is effected preparatory to the subsequent feeding thereof. 23rd. In a knitting machine, the combination of a knitting head, a narrowing and widening mechanism, and mechanism for clamping the needle cylinder during the narrowing and widening operations. 24th. In a knitting machine, the combination of a knitting head, a narrowing and widening mechanism, means for raising the needle cylinder, and mechanism for clamping the needle cylinder during the narrowing and widening operations. 25th. In a knitting machine, the combination of a supporting frame, a knitting head, mechanism for imparting alternately continuous rotary and reciprocatory motion to the cam cylinder of said knitting head, a cam shaft provided with a number of cams, a stitch enlarging mechanism operated by a cam on said cam shaft, a needle throwing out mechanism controlled by a cam on said cam shaft, a narrowing mechanism controlled by a cam on said cam shaft, a reinforcing yarn mechanism actuated by a cam on said cam shaft, a yarn take-up mechanism actuated by a cam on said cam shaft, a clamping mechanism for the needle cylinder actuated by a cam on said cam shaft, and a widening mechanism controlled by a cam on said cam shaft. 26th. In a knitting ma-

chine for the knitting of a stocking, the combination of a knitting head, a driving mechanism for imparting rotary and reciprocatory movements to the cam cylinder of said head, a narrowing mechanism, a widening mechanism, a reinforcing yarn mechanism, a yarn take-up mechanism, means for raising the needle cylinder during the narrowing and widening operations, and a single cam shaft provided with cams for actuating and controlling said mechanisms. 27th. In a knitting machine for the knitting of a stocking, the combination of a knitting head, a driving mechanism for imparting rotary and reciprocatory movement to the cam cylinder of said head, a narrowing mechanism, a widening mechanism, a reinforcing yarn mechanism, a yarn take-up mechanism, means for raising the needle cylinder during the narrowing and widening operations, a single cam shaft provided with cams for actuating and controlling said mechanisms, a driving ratchet mechanism for said cam shaft provided with dwells, and a mechanism for starting said cam shaft at proper intervals of time. 28th. In a knitting machine, the combination of a knitting head, mechanism for raising the needle cylinder to elongate the stitches, and mechanism for clamping the needle cylinder in elevated position.

No. 51,171. Stereoscope. (*Stereoscope.*)



Hawley Castle White, North Bennington, Vermont, U.S.A., 1st February, 1896; 6 years. (Filed 9th October, 1895.)

Claim.—1st. A stereoscope provided with a hood which substantially encircles the periphery of the lens frame, leaving a gap which is shaped to closely fit the nose and cheeks, the sides of the said hood being extended to closely fit the temples, and the whole forming a dark chamber, substantially as set forth. 2nd. A stereoscope consisting of an elliptical lens frame and a hood which substantially encircles the periphery of the said frame, having a gap at the centre of its under side, which gap is shaped to closely fit the nose and cheeks, the said hood being constructed with the prominences P, the concavities C, and the extensions E, all arranged and operating to form a dark chamber when applied to the face, substantially as set forth. 3rd. A stereoscope consisting of an elliptical lens frame rabbeted around its entire periphery to form a seat for the hood, a hood which substantially encircles the periphery of the said frame, and has a gap adapted to fit closely the nose and cheeks, a shaft projecting from the said frame, and a picture holder adapted to be adjusted on the said shaft, the said hood being provided with prominences P, concavities C and extensions E, all arranged and combined to form a dark chamber, substantially as set forth. 4th. A stereoscope consisting of a lens frame, a shaft attached thereto, which extends forward of the said frame, and is recessed to fit closely the nose and cheeks, and a hood which extends around the said frame to the sides of the said shaft and is supported thereby, the front part of the said shaft being practically part of the hood, the said hood being also provided with extensions for fitting against the temples to combine with the said recessed shaft in forming a dark chamber, substantially as set forth. 5th. A stereoscope provided with a shaft extending forward of the lens frame and with a hood, the said shaft and hood being conjointly shaped to fit the face of the user so as to form a dark chamber between the eyes and the lenses, substantially as set forth.

No. 51,172. Machine for Cutting Can Body Blanks.

(*Machine pour couper les ébauches des boîtes en fer blanc.*)

Axle Johnson, Oakland, California, U.S.A., 1st February, 1896; 6 years. (Filed 8th Oct., 1895.)

Claim.—1st. In a machine for trimming sheets of metal and cutting same into proper sized can body blanks, the combination with the cutting knives for cutting and trimming the ends of the sheet of metal, mechanism for receiving the sheet of metal and placing same in line with the cutting knives, the longitudinally-reciprocating carriage which receives the sheet of metal from the feed mechanism devices for receiving the cut sheet of metal from the carriage and operating the cutting knives with the movement of said carriage, and devices for trimming the sides of the sheet of metal and slitting the same into can body blanks. 2nd. In a machine for cutting can