

band having a raised receptacle for one end of a reel plate on one portion of its surface, and a groove struck from the inside on an opposite portion, in combination with a cam working in said groove having a lever attached and adapted to fasten said band over said reel plate, and a metal reel seat adapted to surround the butt of a fishing rod, and having a raised receptacle for the other end of said reel plate fixed thereto, substantially as and for the purpose herein set forth. 2nd. In a reel fastening for a fishing rod, a loose or sliding band having a raised receptacle for one end of a reel plate on one portion of its surface, and a groove struck from the inside of an opposite portion, in combination with a cam working in said groove, having a lever attached and adapted to fasten said band over said reel plate, and with the butt of a fishing rod having a raised receptacle for the other end of said reel plate fixed thereto, substantially as and for the purpose herein set forth. 3rd. In a reel fastening for fishing rods, a loose or sliding band having a raised tapering receptacle for one end of a reel plate, and a groove struck from the inside, in combination with a cam to work in said groove, having a lever attached, adapted to tighten said band upon, and release it from said reel plate, substantially as and for the purpose herein described. 4th. In a reel fastening for fishing rods, a loose or sliding band having a groove struck from the inside for the reception of, and in combination with a cam to work in said groove, having a lever attached, adapted to tighten said band upon and release it from a reel plate, substantially as and for the purpose herein described. 5th. In a reel fastening for fishing rods, a loose or sliding band having a raised tapering receptacle for one end of a reel plate, in combination with a suitable device for tightening said band upon said plate, substantially as and for the purpose herein set forth. 6th. The combination of a sliding band *b*, with its raised portions *c* and *d*, lever *g*, with its cam *h*, and tube *a* provided with a receptacle *f*, substantially as herein described.

No. 19,543. Roller Mill. (*Moulin à Cylindres*.)

Jesse Warrington, Indianapolis, Ind., U.S., 9th June, 1884; 5 years.

Claim.—1st. The combination, in a roller-mill, of the swinging roll-supporting arms, means for holding said arms inwardly at both the top and the bottom, springs which when compressed permit said arms to swing outwardly, and pivots or stops located between the upper and the lower devices for holding the arms inwardly, which limit the inward movement of the arms, substantially as set forth. 2nd. The combination, in a roller-mill, of roll supporting arms *D*, movable bearings therefor, the adjustable rods or screws at the upper and lower ends of said arms, and springs *E*, said bearings being located between said rods or screws, substantially as set forth. 3rd. The combination, in a roller-mill, of swinging arms supporting one of the rolls of a pair, rods at both ends thereof which hold said arms and the roll supported thereby toward the other roll of arms opposite to the ends which support the roll, and beyond the supporting pivots of said arms, which springs operate to throw the ends of said arms which support the roll, and the roll supported thereby outward, thus forcing said roll away from its fellow as far as the rods which hold it inwardly will permit, substantially as set forth. 4th. The combination, in a roller-mill, of the swiveling roll-supporting arms *D* having elongated pivot-openings, the pivot-pins *d*, the adjusting screws at the upper ends of the arms, the rods *F* and the springs *E*, whereby said arms are adjusted to position and held in said position against fixed stops, and the roll supported thereby is held forward with a force needed for a grinding-pressure, and is at the same time permitted to swing back slightly when any hard substance comes between it and its fellow, all substantially as set forth. 5th. The combination, in a roller-mill, of supporting seats for the bearings for the rolls, the boxes forming said bearings, and means for moving said boxes on said seats, said boxes having porous with spherical surfaces fitting spherical surfaces on the seats, said surfaces having a common center horizontally removed from the center of the rolls whereby a vertical adjustment of said boxes may be had by a shifting of the box on its seat, these spherical surfaces at the same time obviating any binding action of the boxes on the roll-journals, substantially as set forth. 6th. In a roller-mill, for the combination of the journal-boxes and supporting surfaces thereon, said boxes being struck from a common center, as at *a*, and said boxes being formed to fit said surfaces, whereby a moving of plane which passes through both without causing a binding on the roll-journals, substantially as set forth. 7th. The combination, in a roller-mill, of the rolls swinging arms carrying one roll of the pair, levers for operating said swinging arms, and a cam-rod on which said levers are mounted and whereby they are operated, said cam-rod being provided with an appropriate handle, substantially as set forth. 8th. The combination, in a roller-mill, of the rolls, swinging arms carrying one roll of a pair, levers for operating said swinging arms, a cam-rod on which said levers are mounted, and a handle for operating said cam-rod, said handle having a segmental extension *h*, with the first, all substantially as shown and specified. 9th. The combination, in a roller-mill, of the rolls, swinging arms carrying the same, levers for operating said swinging arms, and distance or adjusting screws for determining the position of said levers, substantially as set forth. 10th. The combination of the grinding rolls, the adjustable boxes attached to the frame-work and carrying the outer roll of the pair, the swinging arms carrying the inner roll of the pair, and means for operating said swinging arms to carry said inner roll into grinding relation with said outer roll, or to part it therefrom, substantially as shown and specified. 11th. The combination, in a roller-mill, of the roll-carrying swinging arms *D* mounted on pivots *d* and provided with adjusting screws *d*, the tempering rods *F* and the levers *G*, substantially as set forth. 12th. The combination, in a roller-mill, of a yoke or frame-work extending from one of the journal-boxes of the counter-shaft to the other and supporting said boxes, and means for adjusting said yoke or frame-work, substantially as described and for the purposes specified. 13th. The combination of the counter-adjusting said frame-work, substantially as set forth. 14th. The combination of the counter-shaft *L* mounted on the yoke or frame-

work *N*, said frame-work and a screw, whereby the position thereof can be adjusted, substantially as set forth. 15th. The combination of the counter-shaft *L*, the yoke *N* mounted on pivots *n* and the screw *O* provided with hand-nuts *o*, *o'*, substantially as shown and described and for the purposes specified. 16th. The combination, with a grinding roll of a roller-mill, of a scraper consisting of a blade mounted in slides on the frame-work, and weighted levers mounted on fulcrums and adapted to keep said blade in contact with said roll, substantially as set forth. 17th. The combination, in a roller-mill, of a grinding roll, a scraper blade *P*, slides *p* therefor, weighted levers *P* and fulcrums *p* therefor, the points of said levers extending under and holding said blade in position, substantially as set forth. 18th. The combination, in a roller-mill, of a grinding-roll, a scraper-blade having notches in its lower edge, and levers which extend across and rest upon fulcrums, and pass under and enter said notches, whereby said levers are secured against endway movement on said fulcrum, substantially as set forth. 19th. The combination of a scraper-blade, weighted levers for sustaining said scraper-blade, and fulcrums on which said levers are mounted, said fulcrums being flattened, and said levers having lips *p* adapted to come in contact with the side of said fulcrums and thus hold said levers from too great a movement, substantially as set forth. 20th. The combination of the scraper-blade *P*, the weighted lever *P* having lips *p* on the weight side of the fulcrum, and the fulcrum *p* flattened or extended downwardly to form a stop, with which said lip may come in contact, substantially as shown and specified.

No. 19,544. Lumber Dryer. (*Sécherie à Bois*.)

Aaron S. Nicholas, Chicago, Ill., U.S., 9th June, 1884; 5 years.

Claim.—1st. The herein described platon for drying lumber, consisting of a flat coil of tubing combined with transverse series of bars or strips arranged to form bearings for the lumber on opposite sides of said flat coil of tubing, the bars of the series arranged to leave an opening between them, the said coil of tubing constructed for connection with, and discharge of a supply of steam or hot water, substantially as described. 2nd. The combination of a coil of tubing, with transverse series of strips or bars arranged to form bearings for the lumber on opposite sides of said flat coil, the bars constructed with their surface next the coils flat and the outside surface rounded, the bars arranged to leave an opening between them and the said coil constructed for connection with and discharge of a supply of steam or hot water, substantially as described.

No. 19,545. Lever. (*Lever*)

Daniel Buckley, Boston Mass., U.S., 9th June, 1884; 5 years.

Claim.—1st. In a device substantially such as described, the arm *A* provided with the slot *c*, and studs *m*, *d*, and the arm *B* provided with the slot *e* and studs *t*, in combination, with means for clamping said arms together and journaling or pivoting them, substantially as described. 2nd. In a device substantially such as described, the screw-bolt *D* provided with the rounded sloped head *d* and flat end portion *t*, in combination with the nut *E* having the rounded elongated body *e* for journaling and clamping the arms *A*, *B*, substantially as set forth. 3rd. In a device substantially such as described, the stud *d* and *C* provided with the bolt *D* and nut *E* adapted to clamp and journal the arms *A*, *B*, substantially as described. 4th. The improved extensible lever, herein described, the same consist of the arm *A* provided with the slot *c*, studs *m*, *d*, and holes *e*, *r*, the arm *B* provided with the studs *t*, slot *e*, and holes *r*, the screw-bolt *D* having the rounded head *d* and flat end portion *t*, the nut *E* having the rounded body *e*, and the support *C* provided with the standard *f*, *f'*, constructed, combined and arranged to operate substantially as set forth. 5th. In a device substantially such as described, the arms *A*, *B* provided with the holes *r* for attaching auxiliary arms to lengthen the lever, substantially as described.

No. 19,546. Vapour Burner. (*Bec à Gaz*.)

Clarmont V. Best, Martin L. Best, Levi L. Miller, and Jacob Miller, Canton Ohio, U.S., 10th June 1884; 5 years.

Claim.—1st. The combination, with the angular heating-plate *B*, of the inclined passage *d* communicating with the mixing-chamber near the upper end to form an oil jet, substantially as and for the purpose set forth. 2nd. The angular heating-plate *B* provided with corner side extension *q*, substantially as and for the purpose specified. 3rd. The angular heating plate *B* and inclined passage *d*, in combination with the passage *f* having its upper portion extending along the underside of said angular heating plate, substantially as shown and described.

No. 19,547. Improvement in Dentistry.

(*Perfectionnement dans l'Art Dentaire*.)

Lucius T. Sheffield, (assignee of Cassius M. Richmond,) New York, N. Y., U. S., 10th June, 1884; 15 years.

Claim.—1st. The process of preparing roots for the reception of artificial dentures, which consists in grooving the same by opposite grooves, and then suddenly removing the crown from the root by suitable forceps, substantially as described. 2nd. The process of preparing a root for the reception of an artificial denture, which consists in removing the crown from the root by a suitable contrivance, and then immediately expelling the nerve from its cavity by driving a suitably-shaped piece of wood into the nerve cavity, substantially as described. 3rd. The process of treating and preparing the roots of teeth the same consisting in suddenly expelling the nerve from its cavity, as set forth, and then instantly filling the nerve cavity with a wooden plug, substantially as set forth. 4th. The process of preparing a root for the reception of an artificial denture, which consists in grooving the same, in cutting off the crown from the root by suitable forceps, in immediately driving into the nerve cavity a suitably shaped piece of wood, in removing the same and cleansing the nerve cavity, and in immediately plugging or filling the upper part of the nerve cavity by driving in another piece of wood, substantially as described. 5th. The process of treating teeth to remove the nerves, the same consisting in isolating the tooth to be treated, and then sub-