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## IVVENTIONS PATENTED.

No. 16,242. Improvements on Combined Insole and Heel Protectors. (Perfectionnements aux protecteurs des faussessemelles tt des talons.)
William T. Schenek, Marva, Ill., U.S., 1st February, 1883; for 5 years.
Claim-A combined insole and heel protector for boots and shoes formed of a single piece of leather having one end cut in the form of a sole $A$, and the other end in the form of a counter or extension a, Fith curved slits $b$ between them, and flaps $c$ adapted to be secured to the insole.

## No. 16,24:3. Improvements on Lathes.

(Perfectionnements aux tours à tourner.)
William H. Lenhart, Defiance, Ohio, U. S., 1st February, 1882; for 5 years.
Claim.-1st. In a lathe for turning irregular forms, the rotating disk $D$ and spindles $b b$ revolving in bearings movable radially in said disks, in combination with stationary guideways secured to the latheframe and cams secured on the spindles and traveling upon said stationsry guideways. 2nd. The revolving disk D provided with radial recesses, and the blocks $E$ E reciprocating in said recesses and carrying the revolving spindles $F$, in combination with cams secured on said spindles and guideways rigidly secured to the stationary latheframe, whereby the cams moving on the puideways will govern the radial movement of the spindles. 3rd. The combination of spindle F , squaring cam $J$, guideway $L$ and cutter head 0 containing expanding and contracting knife stocks $K$, and mechanism for operating said knife stocks. 4th. In combination with a series of revolving cutter heads, rotary disks carrying independent radially movable spindles around said sutter heads, stationary guideways upon the main frame and cams secured to the spindles travelling on the stationary guideWays, whereby the spindles can be moved radially to or from the outter heads to govern the shape of the object being turned. 5th. The cutter head 0 provided with radial recesses, the knife-stocks $k$ sliding in said recesses and carrying knives at their outer ends, in combination with the disk $n$ and the wedges $p$, said wedges being constructed to slide, one in the rear of each knife-gtock, and each having tongues to slide in undercut recesses in its knife-stock, whereby they will adFance or retract the knife stocks with a positive movement. 6th. As a means for giving motion to the adjustable spindles F , the combination of spur gear $H$, rotary disk $D$, feathered shaft $h$, miter pinions ef $a$ and radially adjustable blocks E . 7th. In a lathe for turning irregular forms, the combination of a series of cutter heade which simultaneously work upon the stick, in combination with two revolFing spindles, stationary guideways secured to the lathe frame and exchangeable cams secured upon the spindles, whereby the moremend of said cams upon the guideways will automatically and independently adjust the spindles. 8th. In a lathe for cutting spokes, the combination of a series of revolving cutter-heads N 0 , the radially self-adjusting spindies FF, the oval and squaring cams I and $J$ and involute guideways $D$ and circular guideway $L$ when operating Wedges $p$ and as described. 9 th. The cutter head 0 , knife stock $k$, with the $p$ and the grooved disk $n$ carrying said wedges, in combination with the stationary grooved cam R the roller $l$ and the arm $m$.
No. 16,244. Improvements on Shoemakern' Jacks. (Perfectionnements aux chevalets des cordonniers.)
Frank Schipper, Luke Dobel and Anthony Dobel, Aurora, Ind., U.S., 2nd February, 1883 ; for 5 years.

Claim.-lst. The combination of a supporting stand and a jack supporting head D, adupted to receive the last supporting parts and swivelled to turn in the hinged part of the supporting stand, with the last supporting parts fitted to turn in piece $D$. 2nd. The combination of the stationary parts $B b$ bi E e and the movable parts CDFG and H .
No. 16,245. Improvements in Combined Car Seals and Nippers. (Perfectionnements aux fermetures scellées des chirs et aux pinces combinées.)
William E. Power and George W. Dawson, Montreal, Que., 2nd February, 1883 ; for 5 years.
Claim.-1st. The combination, with a car sealing instrument, of the knives or nippers E F. 2nd. The combination, with the handles A Ai and head $B$, of the dies CD, spring e, cam bi on handles $A^{\prime}$, and knives or nippers E F.

## No. 16,246. Improvements on Saw Benches. (Perfectionnements $a^{\prime \prime} x$ bancs des scies.)

Milo Covel, Chicago, Ill., U. S., 2nd February, 1883; for 5 years.
Claim.-1st. The combination of a trank or main part $A$ with the parts C E removably attached at right angles thereto, with the removable anvil-block. 2nd. The combination, with the traversing slide $B$ of the adjustable arbor At pivoted thereto and adapted to hold a saw in either a vertical or horizontal position. 3rd. The combination, with a saw bench, of the guide plates $A_{2} A_{3}$ having the inner edges projecting slightly beyond the bedding timbers, of the traverging slide $B$ and the adjustable arbor ar pivoted thereto, which is adapted to be converted into either a horizontal or a vertical position. 4th. The combination, with the traversing slide $B$, of the arbor $a^{1}$, the vertical adjustable bevelling sorews B3 B4 and the removable anvilbloek A4. 5th. The combination, with the arbor $a^{1}$, of the collar an provided with the sleeve a4, the collar $a_{3}$ and the olamping nut as adapted to engage with the upper threaded end of the sleeve a4. 6th. The combination, with the guide plates $A^{2} A 3$ and the arbor $a l$, of the bridge A6 adapted to form a rest for, and to support the arbor when in a horizontal position. 7th. The combination, with a saw bench, of an adjustable and removable jointing device, consisting of the body Cr provided with the arms $\mathrm{C}_{2} \mathrm{C}_{3}$ having guide sorews inserted therein and provided with jaws for holding the files, and a spring inserted between the handles of said jaws, for the purpose of retaining the files in contact with the saw and antomatically regulating the pressure on the teeth of the sam when side-dressing the same, and adjusting screws for gauging the width of the teeth at the point.

## No. 16,247. Improvements on Pots and Kettles. (Perfectionnements aux pots et aux bouilloires.)

David Snyder, Grafton, Mass:, U. S., 2nd Febrasry, 1882 ; for 5 years.
Ciaim.-lst. A pot or kettle provided with the partition $D$ and projection E. 2nd. A pot or kettle provided with one large and two small compartments and having the partition $D$ and projection $E$. 3rd. A pot or kettle provided with four small compartments and having the partition D and projection E. 4th. The oovers C C hinged to the wire $d$ and adapted to be attached to the pot or kettle. 5th. The improved pot or kettle, the same consisting of the body $A$, partition $D$, projection E , covers C C and wire $d$.
No. 16,248. Improvements on Railway Semaphores. (Perfectionnements aux semaphores des chemins de fer)
John S. Trites, Moncton. N. B., 2nd February, 1883 ; for 5 years.
Claim. -1 st. The combination of the hand lever A with its attachments for lifting the upper pall $F$, the ratohet wheel $B$, pall $F$, tripping lever $G$, together with the drum $D$, pinion $E$ and cord $H$. 2nd. The combination of the vertical revolving signal board, the bevelled $\operatorname{cog}$ wheel $\mathrm{M} N$ and their connection with the spindle, or shaft $L$ and lamp $K$, with the weight arm $R$, weight $S$ and check chain $T$ together with the wire cord H .

