A. H. DE VOE.

TOOL KIT.

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972,830. **Patented Oct. 18, 1910.**

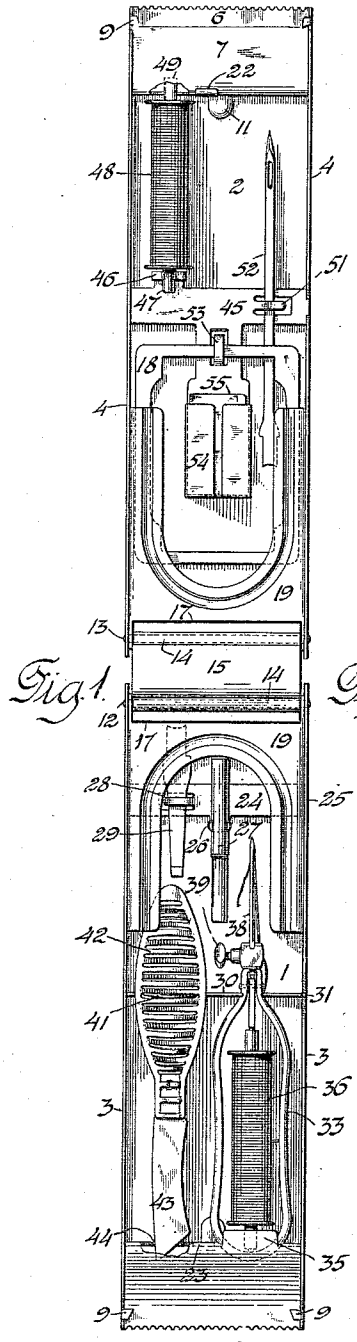

Fig. 1.

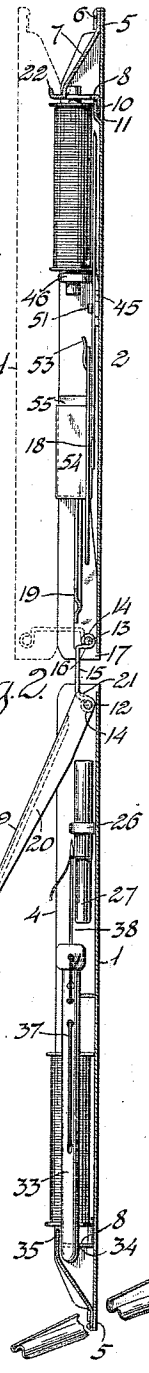

Fig. 2.

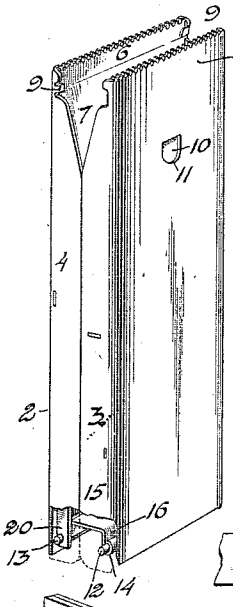

Fig. 3.

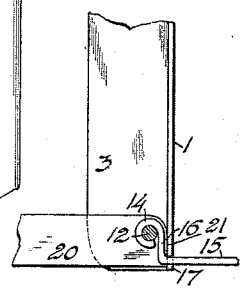

Fig. 5.

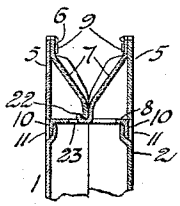

Fig. 6.

Fig. 4.

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TOOL-KIT.

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To all whom it may concern:

Be it known that I, ALBERT H. DE VOE, a citizen of the United States, residing at Elizabeth, in the county of Union and State of New Jersey, have invented certain new and useful Improvements in Tool-Kits, of which the following is a specification, reference being had therein to the accompanying drawings.

This invention has for its object to provide a kit of tools for hand sewing and other operations upon leather and other materials which shall be compact to enable it to be readily carried by the operator when not in use, which shall hold the several tools and implements of the outfit for convenience of access by the operator when at work, and which shall afford an effective means of holding the work under the operation of said tools or implements.

The invention consists in the device herein shown and described and set forth in the appended claims.

In the accompanying drawings, Figure 1 is an elevation of the tool kit with its hinged sections opened out flat to expose the contents, and Fig. 2 a side elevation of the same partly in section to expose the contents, and showing in dotted lines one of the hinged sections closed upon the other. Fig. 3 is a perspective view of the kit closed for transportation, Fig. 4 a similar view of the device with its component sections in operative relation, and Fig. 5 is an enlarged detail view showing the pivotal connection of the hinge member with one of the casing sections. Fig. 6 is an enlarged transverse sectional view of the adjacent end portions of the tool case sections, representing the locking device.

In its preferred form, the case is formed throughout of sheet metal, and comprises two reversible channel-shaped sections 1 and 2 with flat outer faces having upon their edges the parallel flanges 3 and 4. The body plate of each section affords at the upper end an external jaw 5 notched or serrated at the edge and reinforced by the overlying flange 6 of an angle-plate 7 extending across the same and confined within its side flanges, said angle-plate being bent inwardly at right angles to the body of the section to form a closed end 8 for the tool-embracing cavity provided in the inner face of the section. The side flanges are cut away at the ends adjacent the reinforcing plates 7 and are provided with integral prongs 9 which are bent over the flanges 6 to retain the same in position while the end portions 8 of the plates 7 are formed with prongs or fingers 10 entering recesses 11 punched inwardly from the outer faces of the sections 1 and 2, whereby the plates 7 are securely held in position.

Passing through the side flanges 3 and 4 of both sections near their lower extremities are the transverse hinge-pins 12 and 13 upon which are fitted the sleeved opposite ends 14 of a flat hinge-plate 15 and having intermediate members 16 bent at right angles to the body of the plate and connecting the same with the sleeved portions 14. When the case is closed, as represented in Fig. 3, the hinge-plate serves merely as a bottom for the tool cavity intermediate the sections, holding the latter securely together at the lower end, but when the relation of the sections is reversed to bring them into operative or work-holding positions, as represented in Figs. 4 and 5, the member 15 of the hinge-plate extends through notches 17 at the lower ends of the body-plates of the sections, while the member 16 becomes firmly seated upon the latter so as to yieldingly retain the sections in substantially parallel relation. The material *m* to be operated upon having been introduced between the work-holding jaws of the sections, as represented in Fig. 4, and the clamping band or plate 18 having been slipped over the ends of and down upon the exposed edges of the side flanges 3 and 4 of the sections, the jaws are forced into clamping relation with the material in readiness for a stitching or other operation. It is evident that the order in which the application of the clamp-plate 18 and introduction of the material are effected will depend upon the nature of the latter, the clamp-plate being adapted to be applied first, and slipped down into clamping position subsequent to the insertion of the material between the clamping jaws.

To afford a rigid base for the work-support as above described, each section is provided with a foot-plate 19, preferably cut out in the central portion, and provided with side flanges 20 with extremities extending somewhat beyond said plates and perforated to receive the hinge pins 13 and 14 by means of which they are pivotally attached to the

respective sections, each of said side flanges having adjacent its pivotal point a shoulder 21 adapted to rest against the bottom of its respective section to serve as a stop for determining its operative position. When the case is closed, the foot-plates 19 are disposed within the tool-cavities of the respective sections overlying the contained tools or implements; but when the case is set up for operation, these foot-plates are fully opened out as represented in Fig. 4 so as to be straddled by the operator whose weight is employed for maintaining the device seated firmly upon the chair or other support which he occupies.

The reinforcing plate 7 applied to the section 2 is formed with an integral fastening hook 22 adapted to enter the correspondingly disposed aperture 23 formed in the member 7 of the section 1, whereby when the sections are closed together as represented in Fig. 3, they are locked in closed position by engagement of the hook 22 with the walls of the slot 23 as indicated in Fig. 6. As will be observed, these locking members may be readily engaged and disengaged by sliding the hinged sections of the case slightly upon each other while in substantially closed relation, sufficient clearance being provided between the hinged parts for this purpose.

As represented in the drawings, suitable holding plates are provided within the two sections for sustaining the several tools or implements employed in the operations for which the kit is designed. The holding plate 24 is in the form of a cross-bar with reduced extremities 25 entering and secured within slots in the side walls 3 of the section 1. This is provided with a yielding socket 26 adapted to retain in position the needle-holding tube or case 27; and with an integral flat hook 28 under which is removably clamped the screw-driver blade 29. Intermediate the ends, this section 1 is provided with a second cross-bar or holding plate 30 having one edge resting upon the bottom of the tool cavity and formed with reduced ends 31 entering corresponding apertures in the side flanges 3. The plate 30 is formed with a slot or recess 32 in its upper edge in which is introduced one end portion of the tool-holding handle 33 whose opposite end enters a slot 34 in the reinforcing member 7 beneath the integral overhanging lip 35. As herein represented the handle 33 is shown of skeleton form to receive a thread spool 36 suitably journaled therein, and having its thread led through suitable apertures and groove 37 to the eye of a needle 38 clamped in said holder by means of a clamp-screw 39. The holding plate 30 is provided with a second recess 40 with tongue 41 entering one of the transverse apertures in the skeleton handle 42 of a knife provided with the cutting blade 43 whose point enters a slot 44 provided therefor in the member 7 to hold the same in place. The section 2 is provided with a T-shaped holding plate 45 secured therein similarly to the plate 24, and provided with the spring-holding prongs 46 embracing one of the journal-pins 47 of a thread-spool 48 whose other journal-pin 49 enters an aperture 50 formed therefor in the reinforcing plate 7. The plate 45 is provided with a spring-hook 51 for removably holding the blade of the needle 52, and its stem is provided with a spring-hook 53 to hold the clamping ring or plate 18, and is formed with an integral spring socket 54 within which is introduced the cake of wax 55, commonly employed in connection with stitching leather. The serrations in the upper edges of the work-clamping jaws 5 have no function affecting the action of such jaws, but are provided merely to serve as guides for gaging the length of stitches produced by the implement 33 38.

As will be observed by reference to the drawings, the sectional case above described affords an effectively closed receptacle for confining the various members of a set of hand tools for sewing, or for other purposes, while when reversed or opened out into operative position it not only affords an effective means of clamping the work and maintaining the same firmly exposed for the sewing or other operation to which it is to be subjected, but serves as a tool rack in exposing for convenient access the several tools and implements contained therein. As before indicated, although the case is herein shown containing a sewing outfit, it is evident that it is well adapted for certain other classes of tools, for which reason the present improvement is not limited to association with the class of tools herein shown and described.

Having thus set forth the nature of the invention, what I claim herein is:—

1. A tool-case formed of reversible separable sections provided with holders for a plurality of tools and each having a work-clamping jaw upon the face thereof farthest from the other, and means whereby said sections may be forced together face-to-face in reversed relation with their clamping jaws opposed to each other.

2. A tool-case formed of reversible separable sections having in their normally adjacent faces tool-embracing cavities together forming a closed tool receptacle and provided upon their opposite faces with outwardly exposed work-clamping jaws, and means whereby said sections may be forced together face-to-face in reversed relation with their clamping jaws opposed to each other.

3. A tool-case formed of separable sections each provided upon one face with

means for detachably holding a tool and having upon its opposite face a work-clamping jaw, and means whereby said sections may be forced together with their clamping jaws in operative relation.

4. A tool-case formed of reversible separable sections provided in their normally adjacent faces with tool-embracing cavities containing tool-holding means and each formed upon its outer face with a work-clamping jaw, and means whereby said sections may be forced together with their clamping jaws opposed to each other.

5. A tool-case formed of separable sections each provided upon one face with tool-holding means and upon an extremity of the other face with a work-clamping jaw, said sections being hinged together at the opposite end from said jaws, and means whereby said sections may be forced together with their clamping jaws in operative relation.

6. A tool-case formed of separable sections affording work-clamping jaws at one end, a hinge-plate, a pivotal connection between each end of said hinge-plate and the end of one of said sections opposite its work-clamping jaw, and means whereby said sections may be forced together with their clamping jaws in operative relation.

7. A tool-case formed of separable channel-shaped sections with side flanges upon one face and affording work-clamping jaws at one end of the opposite face, a hinge member having spaced pivotal connections with said sections at the opposite ends from the work-clamping jaws, and a clamping ring or hoop adapted to embrace said sections when in clamping position and to engage the exposed edges of their side flanges for forcing the jawed ends of the sections together.

8. A tool-case formed of separable channel-shaped sections with side flanges upon one face and affording work-clamping jaws at one end of the opposite face, reinforcing angle-plates secured between said side flanges opposite the jaws of the respective sections, a hinge member having spaced pivotal connections with said sections at the opposite ends from the work-clamping jaws, and means whereby said sections may be forced together with their clamping jaws in operative relation.

9. A tool-case formed of separable channel-shaped sections with side flanges upon one face and affording work-clamping jaws at one end of the opposite face, reinforcing angle-plates secured between said side flanges opposite the jaws of the respective sections and adapted to close the adjacent ends of said sections, a hinge-plate pivotally connected at its opposite ends to and between the side flanges of said sections at the opposite ends from the work-clamping jaws and adapted to close the said ends of said sections, work-holding means intermediate the side flanges of said sections, and means whereby said sections may be forced together with their clamping jaws in operative relation.

10. A tool-case formed of separable channel-shaped sections with side flanges upon one face and affording work-clamping jaws at one end of the opposite face, reinforcing angle-plates secured between said side flanges opposite the jaws of the respective sections and adapted to close the adjacent ends of said sections, a hinge-plate pivotally connected at its opposite ends to and between the side flanges of said sections at the opposite ends from the work-clamping jaws and adapted to close the said ends of said sections, cross-bars having their opposite ends secured in the side flanges of said sections and each provided with tool-holding means, and means whereby said sections may be forced together with their clamping jaws in operative relation.

11. A tool-case formed of reversible sections pivotally connected together at one end and having upon one face of the opposite end work-clamping jaws and upon the opposite face tool-holding means, and means whereby said sections may be forced together with their clamping jaws in operative relation.

12. A tool-case formed of separable channel-shaped sections with side flanges upon one face and affording work-clamping jaws at one end of the opposite face, reinforcing angle-plates secured between said side flanges opposite the jaws of the respective sections and adapted to close the adjacent ends of said sections, a hinge-plate pivotally connected at its opposite ends to and between the side flanges of said sections at the opposite ends from the work-clamping jaws and adapted to close the said ends of said sections, and means carried by said angle-plates for locking together said sections with their side flanges abutting.

13. A tool-case formed of separable sections each affording a work-clamping jaw, means whereby said sections may be forced together with their clamping jaws in operative relation, and holding feet pivotally connected each to one of said sections at the opposite end from its work-clamping jaw.

14. A tool-case comprising two separable sections each affording a work-clamping jaw, a hinge-plate, two holding feet, and common hinge-pins each pivotally connecting together the end of one of said sections opposite its clamping jaw, one end of the hinge-plate and an end of one of said holding feet.

15. A tool-case comprising two separable channel-shaped sections with side flanges upon one face and affording work-clamping jaws at one end of the opposite face, a hinge-plate, two holding feet, and common hinge-

pins each pivotally connecting together the side flanges of the end of one of said sections opposite its clamping jaw, one end of the hinge-plate and spaced portions of the holding feet introduced between said hinge-plate and the side-flange of said section.

16. A tool-case formed of separable channel-shaped sections with side flanges upon one face and affording work-clamping jaws at one end of the opposite face, reinforcing angle-plates secured between said side flanges opposite the jaws of the respective sections and adapted to close the adjacent ends of said sections, a hinge-plate having its opposite ends pivotally connected to and between the side flanges of said sections at the ends thereof opposite the work-clamping jaws and adapted to close the said ends of said sections, cross-bars having their opposite ends secured in the side flanges of said sections and each provided with tool-holding means adapted to engage and hold in position a member of a set of tools housed within said tool-case, and means whereby said sections may be forced together with their clamping jaws in operative relation.

In testimony whereof, I have signed my name to this specification, in the presence of two subscribing witnesses.

ALBERT H. DE VOE.

Witnesses:
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LILLIAN M. MILLER.