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Fig. 5. a b Fig.7 Fig. 8. Fig.3, 6'. Fig.4, 2 Fig.9.

The Kumpf

ALIEN PROPERTY CUSTODIAN

HOLD-FAST APPLIANCES FOR HOLDING VARIOUS LAYERS OF THICK MATERIALS TOGETHER

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Appliances for holding several layers of thick material together or to hold one layer of thick stuff together with an upper layer of thin stuff are already known. These appliances consist of two buttons, which are connected by means of 5 the shafts and cases of hinges. Other appliances of this kind are known also, in which one of the buttons is supplied with a pointed shaft, which can be inserted in the case or covered rill or kept fast there by pressure.

These already known appliances make it necessary that the material should have a passageopening or larger hole at the place where the appliance is to be fixed, and, in addition to this 15

the connection by hinges in the case of the firstnamed is disadvantageous and circumstantial while in the case of the second the pushing in of the pointed shaft on the one button when the layers of material are to be laid together has 20been shown in practice to be hardly suitable.

This invention avoids the deficiencies of these already known appliances for holding thick materials together.

In the accompanying drawing the various con- 25 structions (forms of construction) of the holdfast appliance are demonstrated in detail.

Fig. 1 shows the first form of construction in connection with two layers of stuff lying one upon the other in detail.

Fig. 2 is a full view of the same seen from above. Fig. 3 is a full view of the under half of the appliance, and

Fig. 4 is a full view of both parts of the appliance, for the better understanding of which the 35 same is shown without the layers of material.

Fig. 5 shows a diametrical view of the appliance, in which the pin with adherent chain is shown drawn through the holes.

Fig. 6 shows the pin alone, with chain.

Fig. 7 shows a slightly altered form of the under half of the hold-fast appliance.

Fig. 8 is the same in diameter, having one of the little metal cover-plates open;

Fig. 9 shows the upper full view of another var- 45 been pierced through. iation of the under-half of the hold-fast appli-

This new fixing contrivance for thick stuffs which is shown in Figs. 1-4 with details shown in Figs. 5 and 6 consists of two fine shafts 1, each 50 of which has on the under end a sort of rectangular bend 2 (Fig. 1). The upper parts of these shafts are connected together by a very fine little chain 3. On the one end of this little chain is a somewhat larger end-link or ring which is in- 55 the points 16 of the under-half (disc) 6.

tended to hinder the slipping-through of the other shaft I when brought in connection with the hole of the button 5. In order to connect the bent shafts 2 with the under-plate or disc of the appliance, the latter is provided on its upper side with little rills or groove which form a cover for the pointed ends of the shafts. In addition to this, this under half (round disc 6) of the appliance is provided with two little metal coverraised groove of the corresponding button and 10 plates which are hinged on at 8. These coverplates 7 are also provided at 9 with corresponding raised grooves or rills so that when they, the plates are closed the bent shafts 2 are firmly fixed and hold fast. Little points 10 on the cover plates grasp at the same time by closing into corresponding holes of the under-part, disc 6, of the appliance.

> When various stuff-layers, a and b, are to be connected, the fine shaft I, which has the slender chain 3 with the end-ring 4 is pierced through the stuff-layers to be connected and its bent end 2 is driven into the raised groove of the under-half 6 (dlsc) of the appliance and then the coverplate 7 is closed. The fine points 16 of the coverplate I grasp into the disc 6 and so secure a firm connection of the cover-plate 7 of under-half 6 with the bent shaft 2. Then the other fine shaft with its bent end 2 is driven through the upper button 5 with the holes and then through the 30 stuff-layers a and b in the same way as the first shaft has been driven and is fixed in the same way into under-half or disc 6 and is also held fast and secured in the same way by the coverplate 7.

One can also proceed in the following manner: If buttons with two holes or with shanks are to be used and so form the upper half of the contrivance, only one shaft i with bent end 2, chain 3, and ring 4 need be used (compare Figs. 5 and 6). In this case the placing of the shaft on button 5, see Fig. 5, is accomplished as shown in the sketch and then button and shaft are connected with the under-half (disc) in the aforesaid manner after the layers of material have

Should the upper button to be used have four holes, two of the hold-fast appliances can be used side by side. Such an arrangement is shown in Figs. 7 and 8. In this case the under-half 6 (disc) has two transposed cover plates I which have a common axis or hinge-arrangement and are constructed in the same manner as in the first case and which also close fast over the bent ends 2 of the shaft I and are also firmly secured by

The variation which is shown in Fig. 9 has on the under-half (disc) 6 of the contrivance two metal coverplates 7 each of which is provided with a revolving hinge 11 and has the form of a quarter of the disc. These are so constructed that they can be raised or levitated in the direction I shown by the arrow so that their top 13 can be brought to rest on point 12 of the disc 6. When the hold fast appliance is to be opened again the cover-plate must be taken hold of again 10

at its top-end 13 and shoved back again from the point 12 of the button 6 in the direction shown by arrow II. These cover-plates have, further little grooves 14 which correspond with similar grooves in under disc 6 when closed. This variation is also provided on its coverplates with raised grooves or rills 9, constructed in accordance with the thickness of the bent points 2 of the shafts 1.

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