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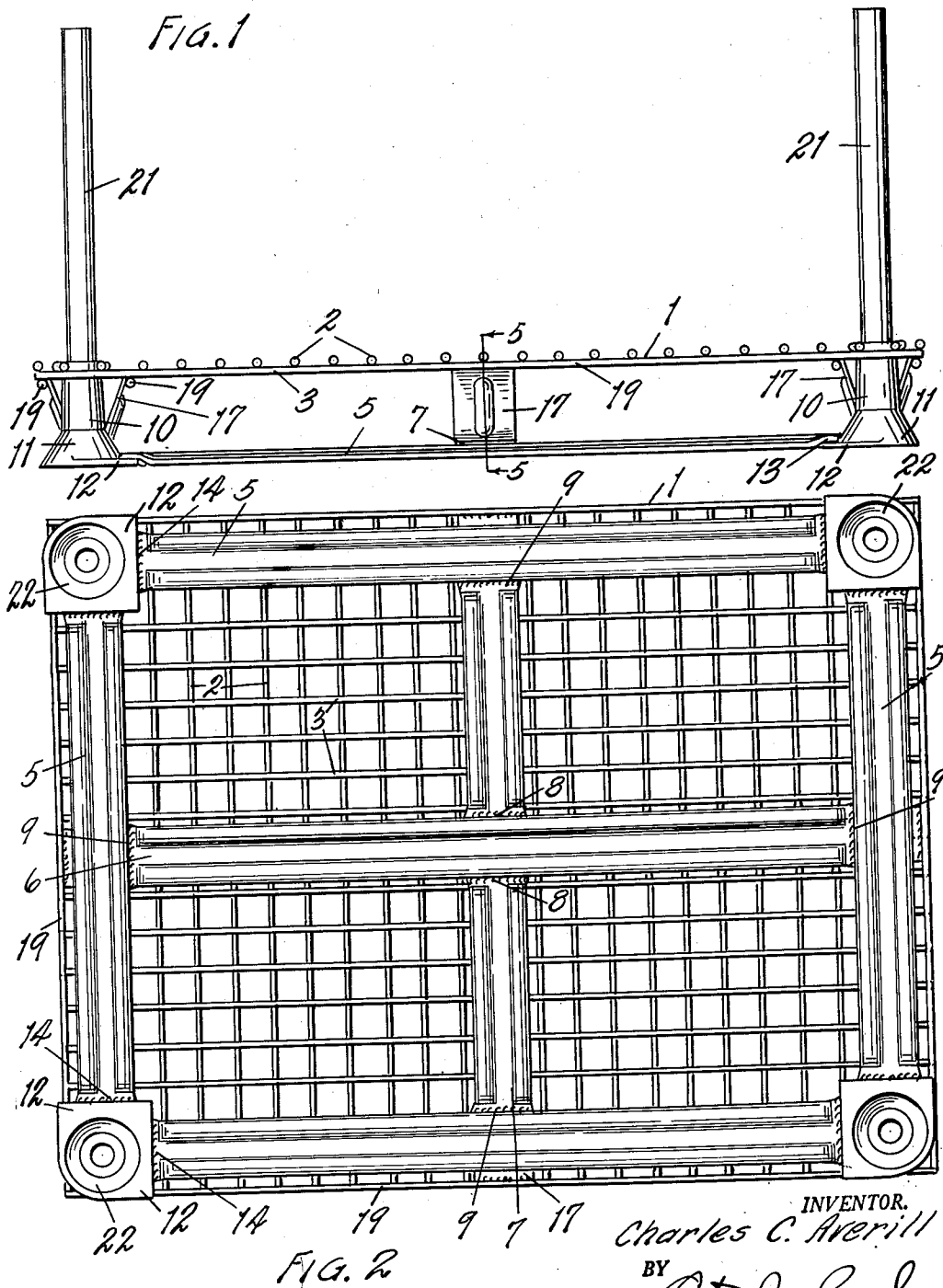
C. C. AVERILL

2,678,787

MATERIAL HANDLING PALLET

Filed June 1, 1950

2 Sheets-Sheet 1

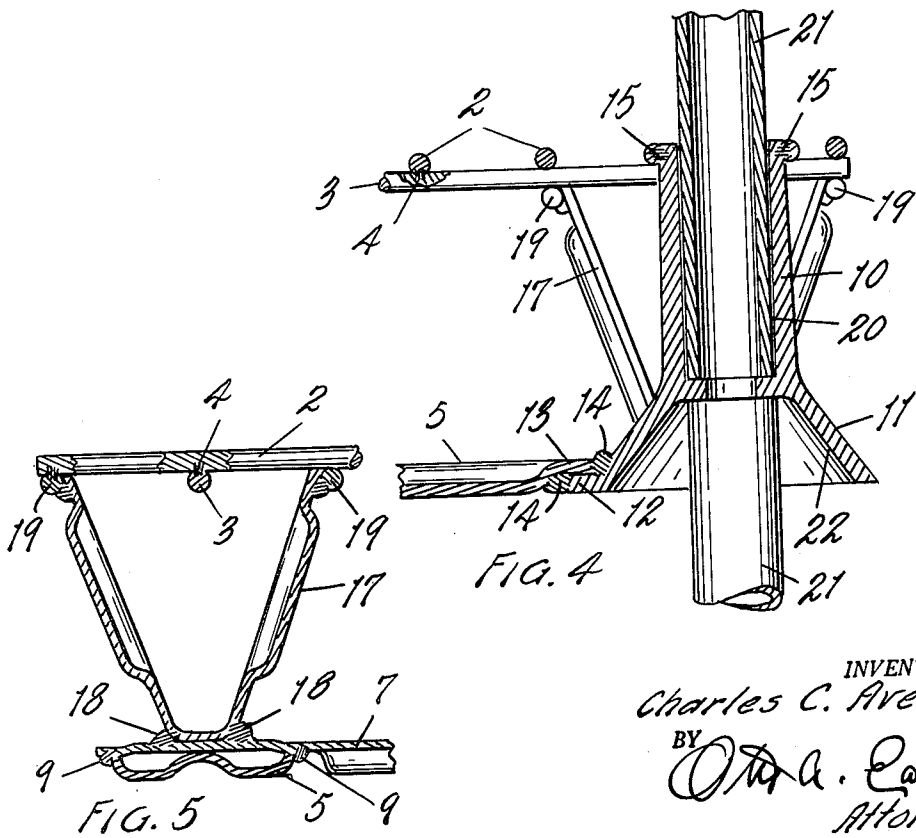
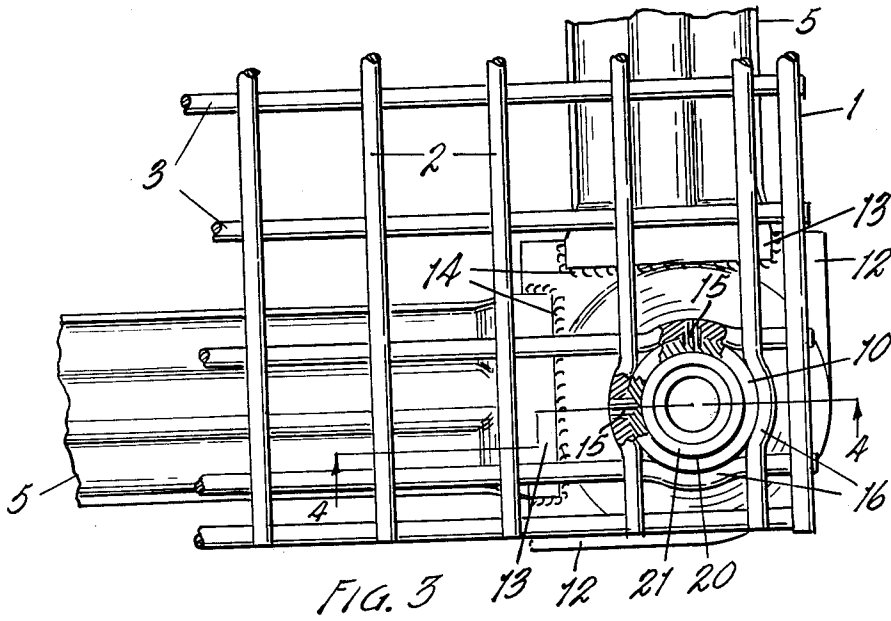


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MATERIAL HANDLING PALLET

2 Sheets-Sheet 2



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UNITED STATES PATENT OFFICE

2,678,787

MATERIAL HANDLING PALLET

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3 Claims. (Cl. 248—120)

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This invention relates to improvements in material handling pallet.

The main objects of this invention are:

First, to provide a pallet which is adapted for stacking with similar superimposed pallets without the load being sustained by the material on the lower pallet.

Second, to provide a pallet which is very strong and rigid and capable of withstanding heavy loading and rough or careless usage.

Third, to provide a pallet in which stakes may optionally be used for supporting a superimposed pallet and which provides an effective base which may be placed directly upon the load on another pallet when desired.

Objects relating to details and economies of the invention will appear from the description to follow. The invention is pointed out in the claims.

A preferred embodiment of the invention is illustrated in the accompanying drawings, in which:

Fig. 1 is a side elevational view of a pallet embodying my invention with the stacking stakes in position thereon.

Fig. 2 is a bottom plan view.

Fig. 3 is an enlarged fragmentary top view illustrating structural details.

Fig. 4 is a fragmentary view partially in vertical section on a line corresponding to the broken line 4—4 of Fig. 3.

Fig. 5 is an enlarged fragmentary view in section on line 5—5 of Fig. 1.

In the embodiment of my invention illustrated in the accompanying drawing, the deck or platform designated generally by the numeral 1 comprises an upper series of spaced parallel wire or rod slats 2 and a lower series of spaced parallel wire rod slats 3, the series of slats being disposed in crossed relation and welded together at their crossing points as indicated at 4 in Fig. 4.

The base comprises longitudinally ribbed outer or side base bars 5 formed of sheet metal and disposed horizontally flatwise, and longitudinally ribbed inner or intermediate bars 6 and 7 disposed in crossed relation and welded together at their crossing points as at 8, their ends being welded to the side base bars at 9. The intermediate bars are disposed in the plane of the side base bars. The cylindrical corner legs 10 have downwardly flared base portions 11 provided with flanges 12 upon which the adjacent ends 13 of the side base bars are lapped and secured by welding as shown conventionally at

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14. The bottoms of the legs are flush with the bottoms of the base bars. The legs constitute base bar tie members and base corner members. The upper ends of the legs 10 are disposed between adjacent pairs of the deck bars and welded thereto as indicated at 15. The deck or grid bars between which the legs are disposed have curved offsets 16 therein embracing the legs as shown in Fig. 3. This provides a very rigid connection for the legs to the deck and for the legs to the base bars. Intermediate V-shaped legs 17 are secured to the side base bars and welded thereto at 18 (see Fig. 5) with their upper ends welded to the leg attaching bars 19 as best shown in Fig. 4. The leg attaching bars 19 are not required where the upper ends of the legs may be secured directly to the lower deck slats as shown in Fig. 5.

The cylindrical corner legs 10 have upwardly facing stake pockets 20 therein adapted to receive stakes 21 and they have downwardly flaring sockets 22 adapted to receive the upper ends of the stakes of a lower pallet when the pallets are stacked. However, the base of the pallet is of such character that the pallets may be stacked by placing the base of the pallet directly upon the load of another. There are, however, various kinds of materials which the pallets are designed to handle or may be required to handle in which the load is injured by directly stacking one pallet upon the load of another or the load is unstable so that the superimposed pallets are likely to slip or slide off.

By providing the legs of the downwardly flaring sockets in their bases they may be readily stacked by trucks without great accuracy being required in positioning. The corner legs are desirably formed of malleable castings. The legs are well adapted to receive blows to which they may be subjected by the handling trucks. Operators frequently accidentally strike the prongs of the trucks against the legs and these cylindrical legs are well adapted to deflect the prongs and withstand severe blows without injury to the structure. The intermediate legs are less likely to be struck by the forks of the trucks but owing to the V-shape and being inclined downwardly they effectively withstand the blows and tend to deflect the prongs of the trucks. The side base members are very securely connected at their ends by the corner legs where the heaviest shocks and strains occur.

I have illustrated and described my invention in a highly practical embodiment thereof. I

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have not attempted to illustrate or describe other embodiments or adaptations as it is believed that this disclosure will enable those skilled in the art to embody or adapt my invention as may be desired.

Having thus described my invention, what I claim as new and desire to secure by Letters Patent is:

1. In a pallet, the combination of a deck, a base comprising side base bars of sheet metal disposed horizontally flatwise, cylindrical corner legs having upper and lower ends with their upper ends secured to said deck, said legs having downwardly flared base portions terminating in bottom flanges to which the adjacent ends of the side base bars are welded in lapping relation, the base portions of the legs constituting base corner elements, said corner legs having upwardly facing stake pockets therein and having in the downwardly flared base portions thereof downwardly flaring sockets adapted to receive the upper ends of vertically disposed stakes disposed in the upwardly facing stake pockets of a like adjacent lower pallet.

2. In a pallet, the combination of a deck, a base comprising side base bars of sheet metal disposed horizontally flatwise, corner legs having upper and lower ends with their upper ends secured to said deck, said corner legs being provided with flanges to which the adjacent ends of the side base bars are welded, the base portions of the legs constituting base corner elements, said corner legs having upwardly facing stake pockets therein and downwardly flaring sockets adapted to receive the upper ends of vertically disposed stakes disposed in the upwardly facing stake pockets of a like adjacent

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lower pallet when a plurality of pallets are disposed in stacked relation.

3. In a pallet, the combination of a deck, a base comprising side base bars of sheet metal disposed horizontally flatwise, corner legs having upper and lower ends with their upper ends fixedly secured to said deck, said corner legs having downwardly flared base portions terminating in flanges, said side base bars having upwardly offset end portions disposed upon and welded to said flanges, said corner legs and said side base bars having bottom surfaces with the bottom surfaces of the corner legs disposed in the plane of the bottom surfaces of said base bars, said corner legs having upwardly facing stake pockets therein and having in the downwardly flared base portions thereof downwardly flaring sockets adapted to receive the ends of stakes carried by an adjacent lower pallet when the pallets are arranged in superimposed relation.

References Cited in the file of this patent

UNITED STATES PATENTS

Number	Name	Date
1,022,858	Markus	Apr. 9, 1912
1,490,665	Gifford	Apr. 15, 1924
2,443,684	Lazarus	June 22, 1948
2,461,887	Fletcher	Feb. 15, 1949
2,463,587	Arthur	Mar. 8, 1949
2,474,460	Bitney	June 28, 1949
2,492,626	Fletcher	Dec. 27, 1949
2,579,685	Loose	Dec. 25, 1951

OTHER REFERENCES

Modern Materials Handling, Jan. 1948.