July 10, 1956

R. F. WEBER

2,754,077

EXPENDABLE PALLET

Filed Sept. 11, 1952

FIG. 1.

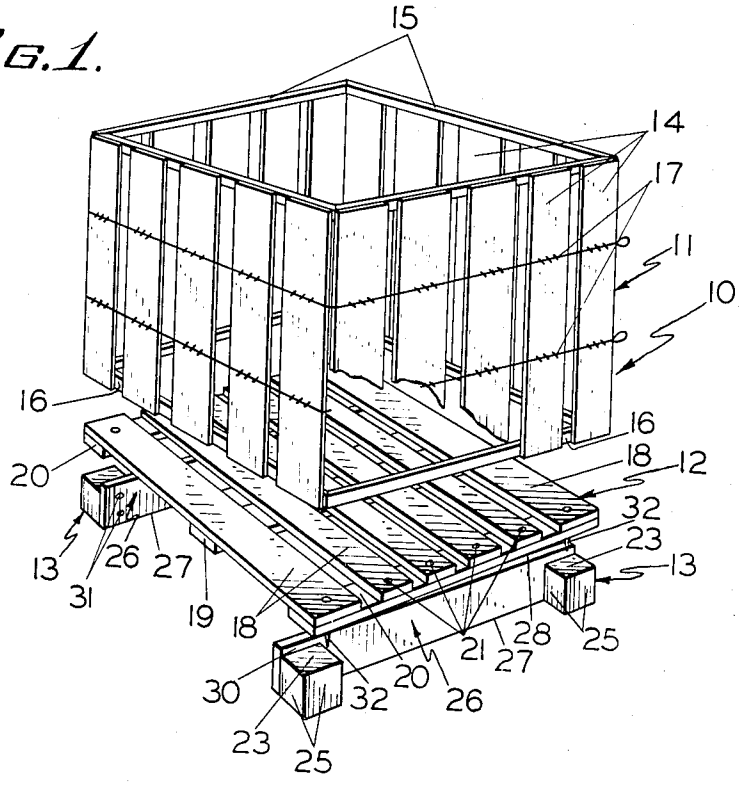
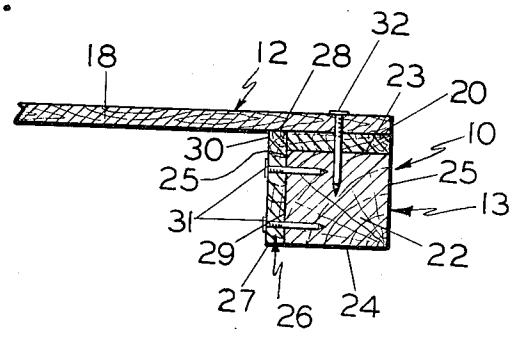


FIG. 2.



Inventor:
Roman F. Weber
Paul O. Pippel
Atty.

United States Patent Office 2,754,077 Patented July 10, 1956

2,754,077

EXPENDABLE PALLET

Roman F. Weber, Chicago, Ill., assignor to International Harvester Company, a corporation of New Jersey

Application September 11, 1952, Serial No. 309,005

1 Claim. (Cl. 248—120)

This invention relates to a pallet construction of a type particularly adapted for supporting wire bound boxes and contents therein in transit. More particularly this invention relates to an improved expendable pallet construction having portions thereof which may be quickly disassembled.

It is a prime object of this invention to provide an improved expendable pallet wherein portions of the pallet can readily be disassembled from the remainder of the pallet when it has reached its destination so that the more expensive portions of the pallet can be returned to their point of origination while the lesser expensive portions of the pallet can be discarded with a resulting saving in return freight or other transportation.

Still another object is to provide an inexpensive supporting or leg structure for the platform of a pallet, the supporting structure being exceptionally strong and sturdy though inexpensive from the standpoint of manufacture so that the supporting structure can be readily discarded when the pallet has reached its destination to permit the return of the more vital and expensive portion of the pallet, mainly the platform, to its original point of shipment with a minimum of cost on part of the shipper.

A still further object of the invention is to provide an improved pallet construction wherein the pallet comprises a platform and a pair of supporting members or legs, the legs being easily separable from the platform after the pallet has reached its destination so that the platform can be disassembled from the legs and returned to its point of origin.

These and further objects will become more readily apparent from a reading of the specification when taken in connection with the accompanying sheet of drawing.

In the drawing:

Figure 1 is a perspective view of a pallet and box assembly showing the three major components of the assembly in disassembled form; and

Figure 2 is a cross sectional view through the platform and supporting element of the improved pallet construction shown in Figure 1.

A pallet and box assembly is generally indicated by the reference character **10**. The assembly includes four wire bound sides **11** which may be suitably supported on a platform **12**, the platform **12** being supported on a pair of expendable supporting elements **13**.

The wire bound sides **11** of the assembly **10** consist of a plurality of vertical boards **14** which are suitably interconnected by means of horizontally connecting upper and lower stringers **15** and **16** respectively. The sides **11** are suitably held in the rectangular position by means of wire ties **17** disposed in a conventional manner.

The platform **12** comprises a plurality of contiguous or adjacent horizontally extending boards **18**. The horizontally extending boards **18** are suitably connected by means of an intermediate laterally extending cleat **19**. A pair of laterally extending end cleats **20** are connected to the boards **18** at opposite ends of the platform **12**. As

indicated at **21** the ends of intermediate horizontal boards are suitably connected to the cleats by nails.

The expendable supporting elements **13** comprise laterally spaced blocks or support members **22** having top and bottom substantially flat surfaces **23** and **24** respectively. The blocks **22** are of cube shaped construction, also having side surfaces **25**. Each supporting element **13** has a beam **26** which has its ends suitably connected to the blocks **22**. The beams **26** are adapted to be supported on the ground or other supporting surface in an upright manner with the lower edges **27** resting on the supporting surface or on the ground in line contact relation. The upper edges **28** of the beams **26**, as best indicated in Figure 2, are adapted to engage and support the underneath sides of the boards **18**. This contact of the upper edges **28** with the boards is complete as to all of the boards **18** so that each board is properly supported. The beams or supporting members **26** are also provided with opposite sides **29**, the sides **29** being comparatively wide relative to the upper and lower edges **27** and **28**. As best indicated at **30**, upper edge portions of the beams **26** extend upwardly beyond the top surface **23** of each block **22**, these portions overlapping and being of the same thickness as the end cleats **20**. The lower surface **27** of each beam **26** is flush with the lower edge of bottom surface **24** of each block **22**. Nails or driven members **31** suitably connect ends of the beams **26** to the blocks **22** with one of the sides **29** of each beam engaging one of the side surfaces **25** of each block in contacting relation. A single driven fastener or nail **32** is driven through opposite ends of each of the outermost boards **18**, the nail **32** also extending through the ends of the cleats **20** and into the blocks **22**.

During transit, the wire bound sides **11** of the pallet and box assembly **10** may be suitably covered by means of a cover (not shown) and a wire wrapping may be disposed completely around the assembly **10**. The platform **12** has been properly nailed to the expendable supporting elements **13**, the connection between the platform and the blocks being the four nails **32** one of these connections being best illustrated in Figure 2. During transit the boards **18** of the platform **12** are firmly supported on the lower and upper edges **27** and **28** of the beams or supporting members **26**. The beams **26** are positioned in an upright relation each beam having a line contact with a supporting surface and with the platform **12**. Thus, the beams **27** are placed into compression and by virtue of their line contact with the supporting surface and due to their distribution of the load, they are completely effective in properly supporting the platform **12**. The ends of the end cleats **20** are also suitably and firmly supported on each of the blocks **22**.

When the pallet and box assembly **10** has reached its ultimate destination it is a simple matter to disconnect the expendable supporting elements **13** from the platform **18**, whereupon these supporting elements can be immediately discarded. If desired the wire bound sides **11** may also be expended and the platform **12**, which is the most expensive portion of the assembly, can be returned to its original point of origin. By virtue of the flat relation of each platform to the other many of these platforms can be stacked within a freight vehicle so that it is generally profitable to return the platforms when compared in relation to their cost.

The simplicity of construction of the supporting elements **13** results in these elements being comparatively cheap and readily discarded without detrimental cost factors involved. The supporting elements **13** are however sufficiently sturdy and in view of their particular construction, in relation to the platform, will adequately

support the maximum loads to which the pallet might be subjected.

It can now be seen that an improved pallet and box assembly has been provided which completely achieves the prime object of the invention, namely the provision of a true and inexpensive expendable pallet, but it must be understood that changes and modifications may be made in this construction without departing from the spirit of the invention as disclosed nor the scope thereof as defined in the appended claim.

What is claimed is:

A pallet construction comprising a horizontally extending load supporting platform, said platform including a plurality of longitudinally extending substantially parallel boards, cleats connected to opposite ends of said boards for rigidly securing said boards in assembly, supporting elements releasably connected to opposite ends of said platform adjacent said cleats, each of said supporting elements including a pair of laterally spaced rectangular blocks having substantially flat bottom, top, and side surfaces, the bottom surfaces normally resting on a supporting surface, the top surface being contiguous to and supporting the end portions of said cleats, a beam connecting the blocks of each supporting element, each beam extending parallel to said cleats, each of said beams including oppositely disposed substantially wide sides and upper and lower substantially narrower load supporting edges, means connecting one side of each beam in contiguous and upright relation with one side surface of each associated block and the lower edge of each of said beam being in flush relation with respect to the bottom surface of each of said associated blocks, portions of the sides of each of said beams projecting upwardly above the top surfaces of said associated blocks and engaging said cleats in overlapping relation, the projecting portion of the side of each beam being in coextensive engagement with one of said cleats, said upper edges of the beam engaging all the boards in supporting relation whereby a major portion of the load on said platform is carried on the supporting edges of said beams, and means on opposite ends of said cleats for releasably connecting the ends of said cleats to said blocks, said means including a driven fastener extending through the cleats and into said blocks.

References Cited in the file of this patent

UNITED STATES PATENTS

242,566	Smith	June 7, 1881
699,475	Bechtel	May 6, 1902
2,448,447	Lau	Aug. 31, 1948
2,503,022	Benoist	Apr. 4, 1950
2,621,006	Norrefeldt	Dec. 2, 1952