

Jan. 27, 1953

G. HARRISON

2,626,456

PALLETIZING SKID

Filed Oct. 27, 1948

Fig. 1.

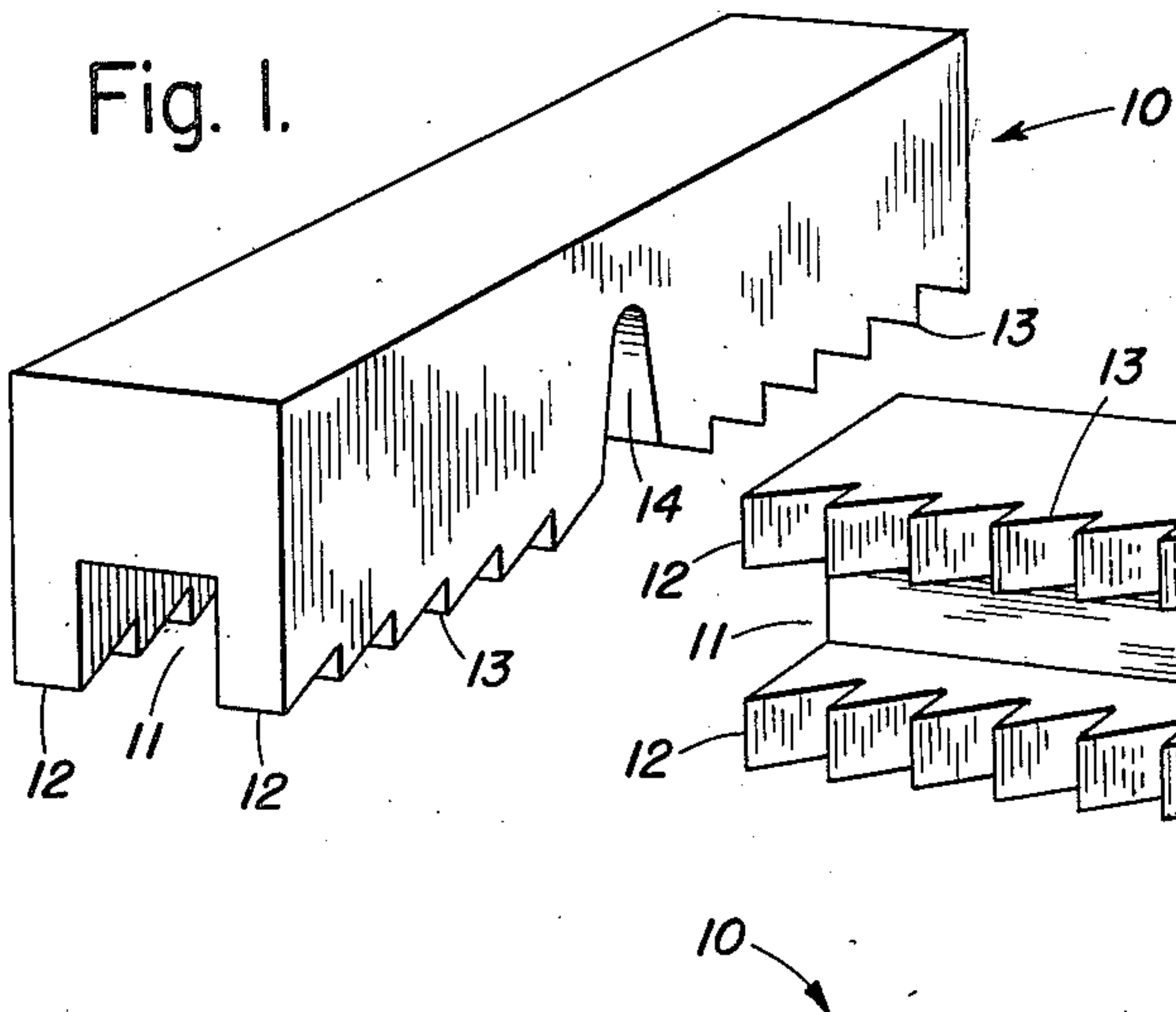


Fig. 2.

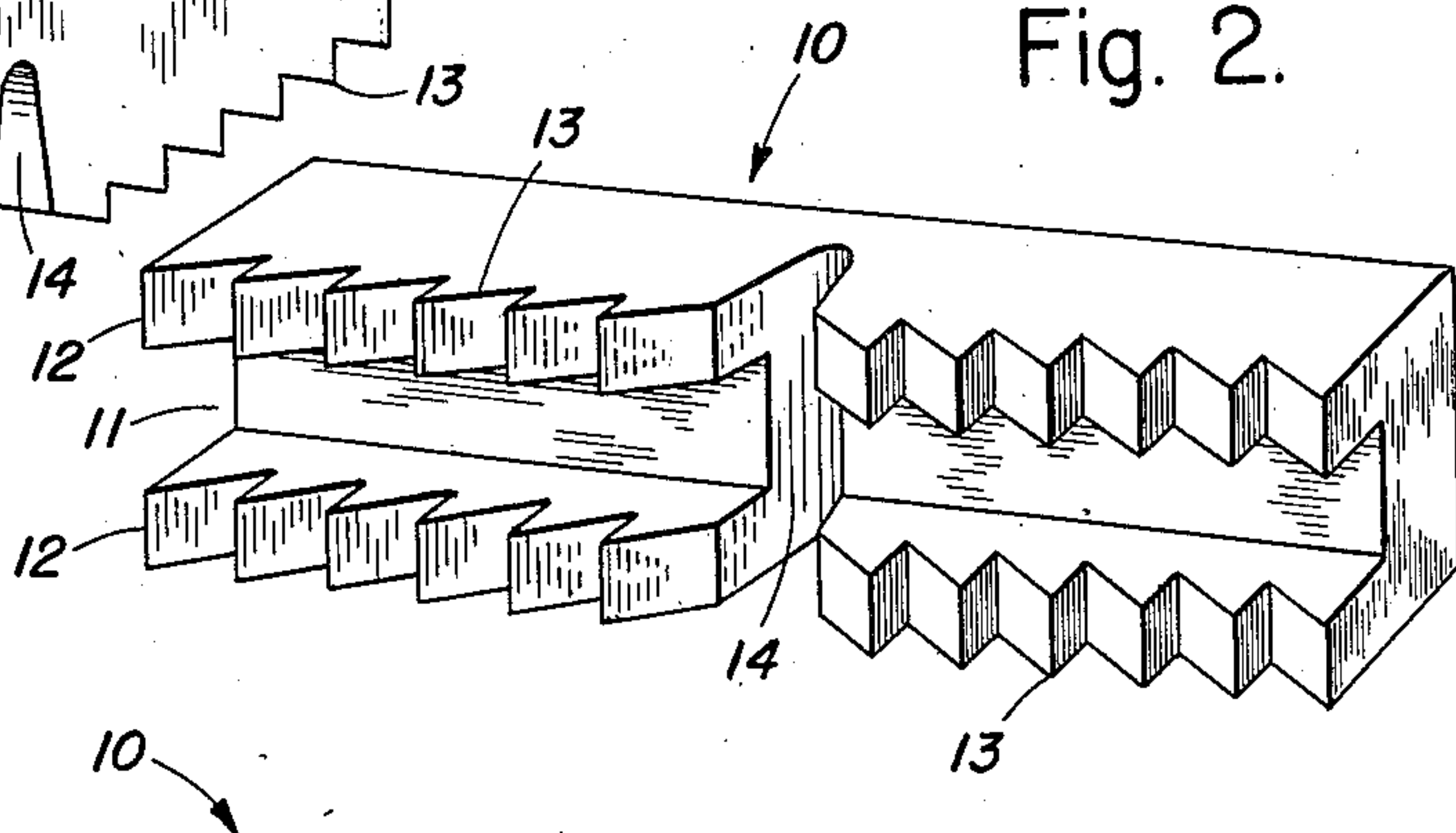


Fig. 3.

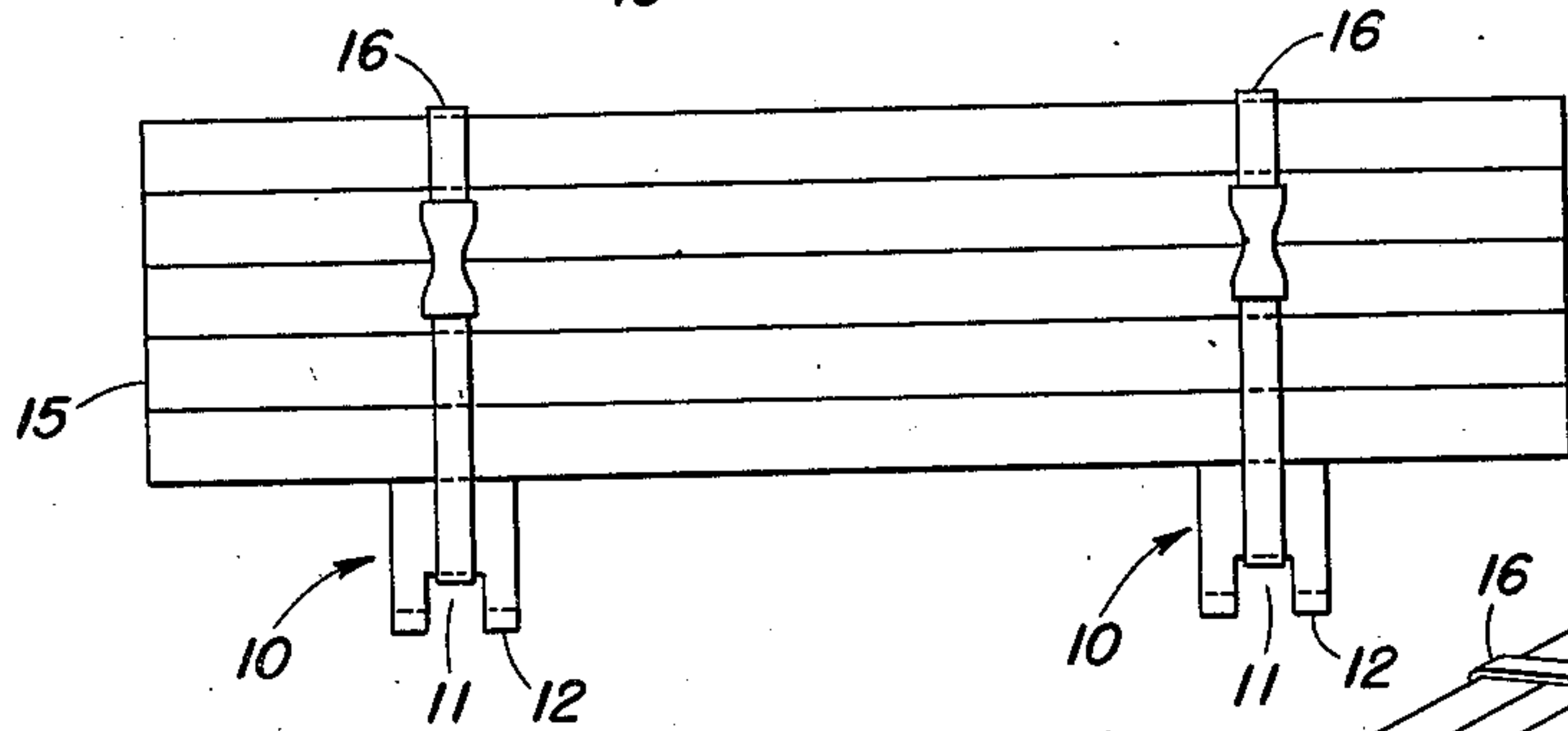
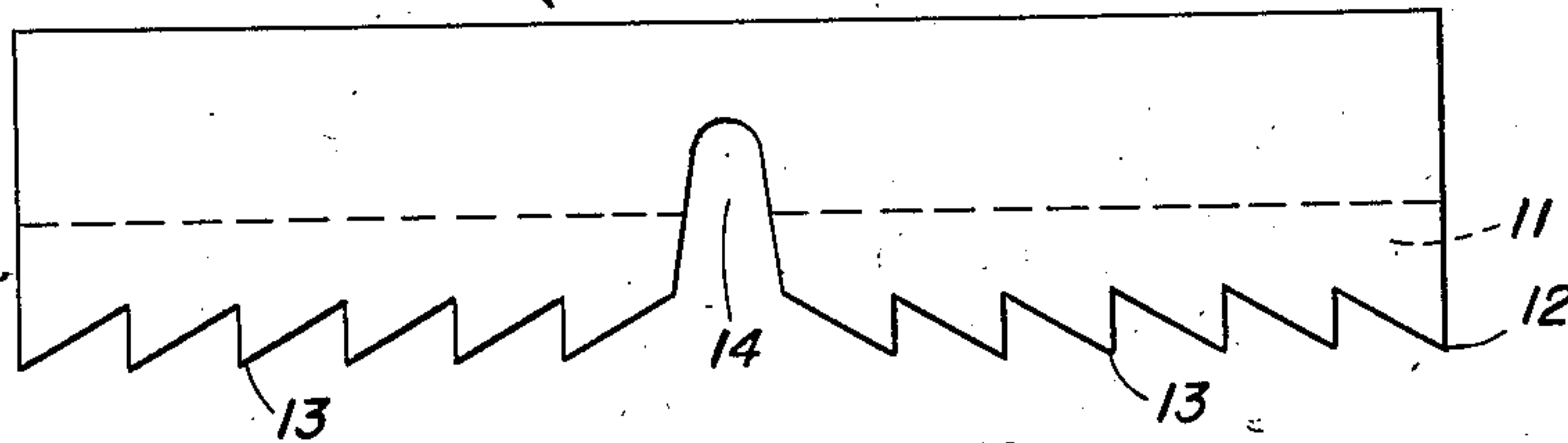
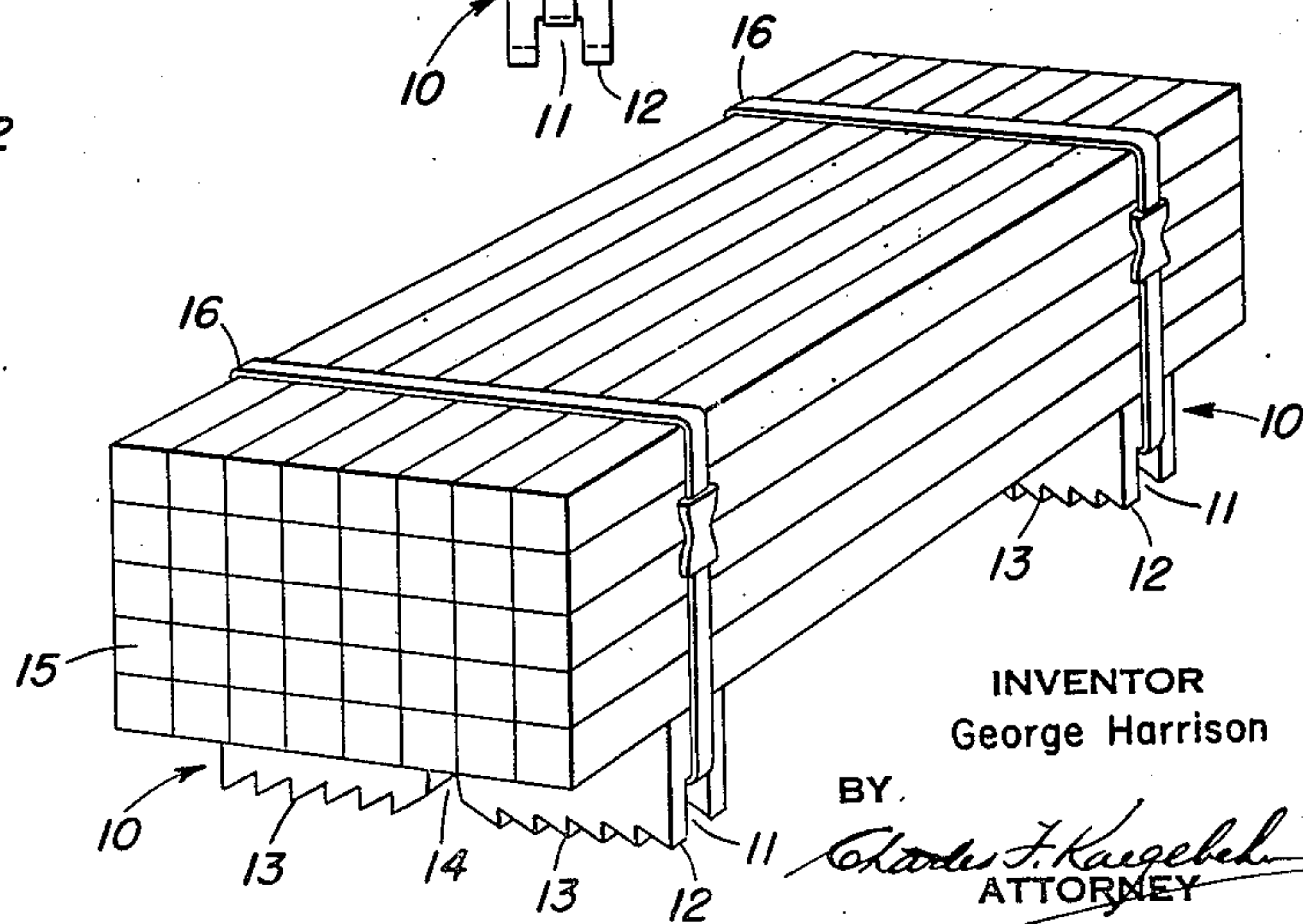


Fig. 4.

Fig. 5.



INVENTOR
George Harrison

BY

Charles F. Kuebel
ATTORNEY

UNITED STATES PATENT OFFICE

2,626,456

PALLETIZING SKID

George Harrison, Berwyn, Ill., assignor to National Lead Company, New York, N. Y., a corporation of New Jersey

Application October 27, 1948, Serial No. 56,696

2 Claims. (Cl. 29—187)

1

This invention relates to a device useful for supporting bundles of ingots or other materials in a manner known to the industry as palletizing.

The handling of ingots, for instance, in industrial establishments often involves tying or binding together a number of units to form a bundle. Such bundles have previously often been arranged with skids at the bottom to elevate the lower surface of the bundle several inches from the floor; or alternatively, the stack or bundle of ingots may be placed on what is known as a pallet which consists of an elevated, relatively flat bed. Since such a palletized bundle is somewhat elevated at least in some portion above the surface on which it rests, it is suited to handling by means of a fork-lift truck. Such a truck is equipped with a fork which may be run underneath the palletized bundle and by raising the fork, the bundle may be lifted from the floor and transported by the truck. Often, the trucks are equipped with a fork which may be elevated to a considerable height so that bundles or palletized stacks may be lifted, moved, and tiered one upon the other so as to conserve floor space and insure orderly storage of the material.

When a pallet proper is used in the above discussed system, handling and return of empty pallets after use of the material shipped and transported thereon, has presented some problems. Even in the case where skids are applied cross-wise underneath the strapped bundle, the handling and disposal or return of the skid members is expensive or at least inconvenient.

It is the object, therefore, of this invention to provide the device known as a palletizing ingot; such ingot to function as the base skid member of a palletized bundle. It is a further object of this invention to provide a palletizing skid which presents no return or disposal problems. It is another object of this invention to provide a palletizing member which when used in conjunction with holding straps will function and hold a bundle of ingots in palletized form. It is another object of this invention to provide a palletizing skid member which will hold a palletized bundle in stable position and insure against shifting of the same when said bundles are placed singly on a surface or tiered one above the other. These and other objects of the invention will become apparent as the description thereof proceeds.

This invention contemplates in its broadest aspects a palletizing skid formed with a longitudinal channel in the bottom surface adapted to receive a binding strap or wire. In its preferred form, the skid comprises an ingot of the same

2

material as the ingots, bars, or rods forming the skid bundle. The bottom surfaces of the skid on either side of the channel are advantageously formed so as to grip the surface on which the complete skid bundle is placed and in a preferred embodiment take the form of a series of serrations. The center of this ingot is preferably notched in the manner well known to the art so that at least two sections may be readily divided if desired. In operation, the novel ingot is laid cross-wise underneath a bundle of ingots to form a palletizing skid, and a metal strap, positioned in the longitudinal channel and around the bundle of ingots, is tightened to hold the bundle and skid in firm juxtaposition; the serrations on the undersurface of the skid providing a firm grip on the surface on which it is placed.

The invention may be more clearly understood by reference to the accompanying drawings in which Fig. 1 represents a general view of the palletizing skid. Fig. 2 shows a general view with particular reference to the underside of the ingot. Fig. 3 illustrates more clearly the side of the ingot showing the notch and serrations. Operation of the palletizing ingot may be clearly understood by reference to Figs. 4 and 5 which shows how it is attached and used in conjunction with a number of ingots of conventional shape to form the palletized bundle. Referring now to Figs. 1, 2 and 3, the ingot 10 is of general, extended rectangular shape and is equipped with a channel 11. This channel 11 runs longitudinally along the entire bottom of the ingot and is adapted to receive the binding element, preferably a metal strap or wire. The projecting bottom surfaces 12 are equipped with gripping means, advantageously by being formed into a series of serrations 13. A notch 14 is placed approximately midway between the ends of the ingot 10 and extends laterally across the width thereof. Referring now to Figs. 4 and 5, in order to make the complete palletized bundle, two ingots 10 are placed beneath a bundle of ingots or bars 15 and spaced apart. Metal straps 16 are bound around the bundle of ingots and laid in the channels 11 in the palletizing skids. The straps 16 are firmly tightened so that the whole forms a readily transportable unit. In transporting this palletized bundle, the fork of a fork-truck will be run underneath the bundle proper 15 between the palletizing ingots 10. When the fork is then elevated, the palletized bundle is lifted from the floor and may be transported by the truck and stacked or tiered if desired. One of the unique features of this invention is the action of ser-

3

rations 13 which hold the palletized bundle firmly in position to resist shifting after it has been stacked or tiered or during transportation of the same. The weight of the bundle resting on the palletized ingots tends to exert a downward force which acts through the outwardly pointed serrations to maintain a firm grip on the surface on which the bundles are placed.

The palletizing ingot of this invention provides several advantages over devices previously used in this art. The ingot being of the same material as the ingots making up the skid bundle may be used along with them in whatever process these are used. In effect, or as far as raw materials are concerned, the palletizing skids may be simply considered as additional ingots and may be of the same unit weight as those in the bundle if desired.

In this manner, any problem involving return or disposal of the skid per se is naturally eliminated. Another advantage of the skid or palletizing ingot of this invention is that it replaces pallets, as ordinarily used, which have often previously been made of wood. The advantage of metallic skids especially when dealing with hazardous or inflammable conditions is obvious. A further advantage of the skid according to this invention is the gripping feature resulting from the serrations on the bottom which enables skid bundles to be transported and stacked or tiered safely without danger of shifting. A further advantage of this type of skid member is that being made of the same material as the ingots, contamination of the ingot material by fragments of skids made of different material is eliminated. The design of the skid member incorporating the strap holding channel provides a secure fastening and positioning of the bundle strap and an inexpensive and readily formed skid bundle.

4

It is to be understood that many variations and embodiments of this invention may be used, and while it has been illustrated with particular reference to the palletizing ingot shown, it is not intended to restrict the invention specifically thereto.

I claim:

1. A palletizing skid comprising an ingot having a longitudinally extending channel in the bottom adapted to receive a binding strap, and having a notch of depth greater than the depth of said channel extending laterally across the bottom of said ingot substantially midway between the ends thereof, and lateral serrations in the projecting bottom surfaces of said ingot.

2. A palletizing skid comprising an ingot having a centrally disposed and longitudinally extending channel in the bottom thereof adapted to receive a binding strap, and having a notch of depth greater than the depth of said channel extending laterally across the bottom of said ingot substantially midway between the ends thereof, and lateral serrations pointing downwardly and outwardly from said notch in the projecting bottom surfaces of said ingot.

GEORGE HARRISON.

REFERENCES CITED

The following references are of record in the file of this patent:

UNITED STATES PATENTS

Number	Name	Date
1,463,512	Leach	July 31, 1923
1,644,278	Romine	Oct. 4, 1927
1,651,263	Fetters	Nov. 29, 1927
1,690,873	O'Neil	Nov. 6, 1928
2,420,625	Stalnaker	May 13, 1947
2,447,542	Seward	Aug. 24, 1948