May 20, 1947. T. D. SMITH 2,420,800

SHIPPING BLOCK

Filed Jan. 7, 1946 2 Sheets-Sheet 1

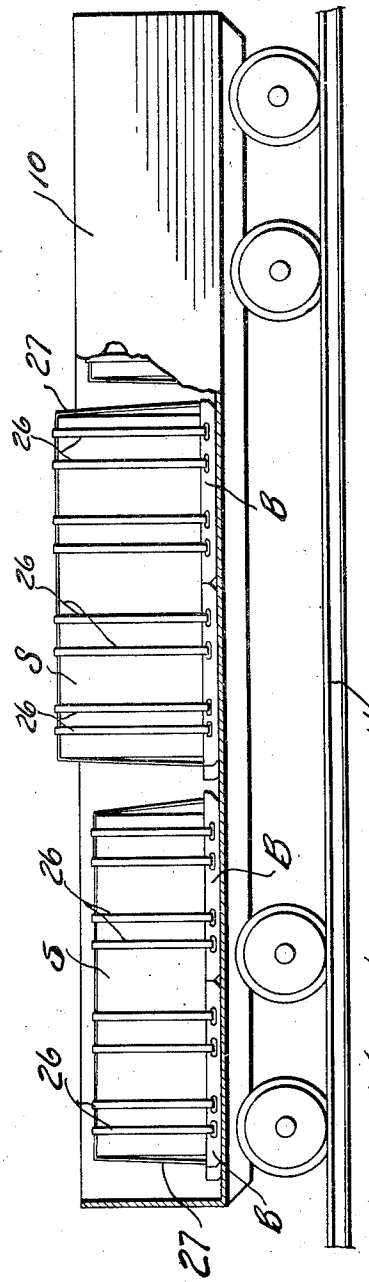


Fig. 1

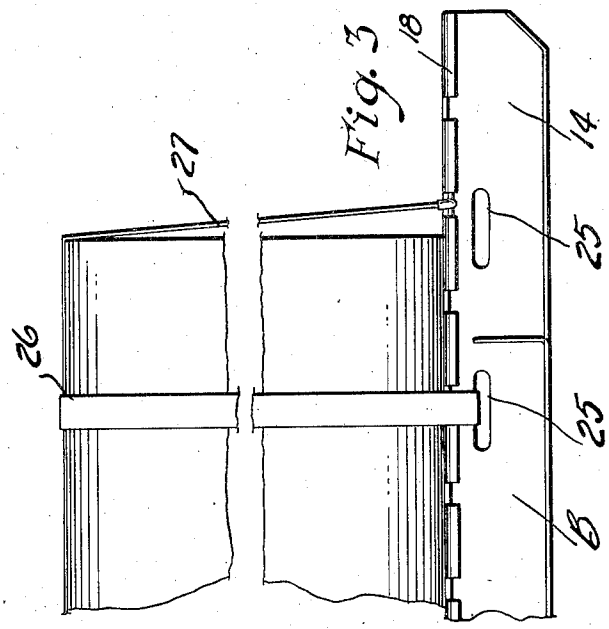


Fig. 3

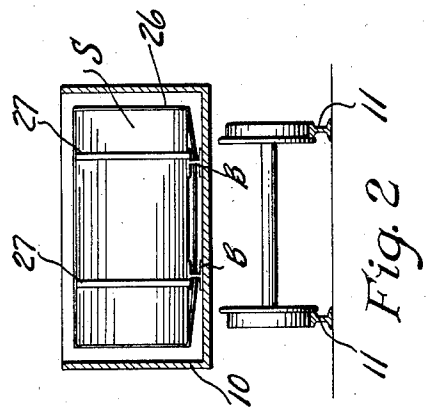


Fig. 2

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May 20, 1947. T. D. SMITH 2,420,800

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Filed Jan. 7, 1946 2 Sheets-Sheet 2

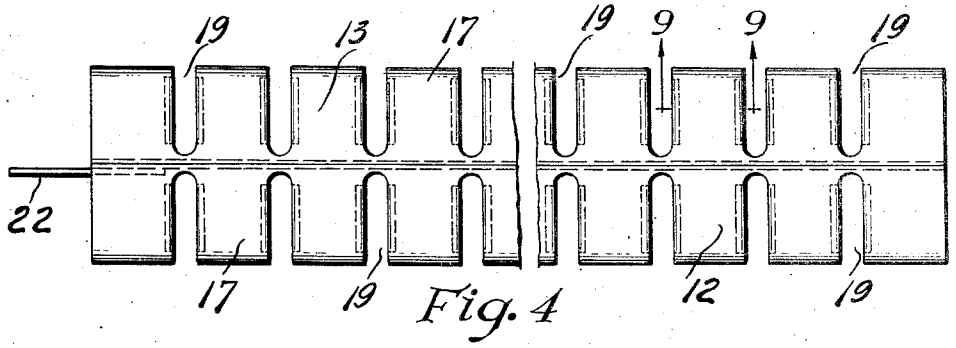


Fig. 4

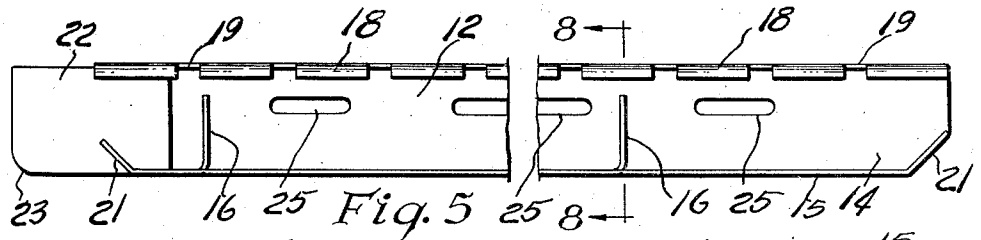


Fig. 5

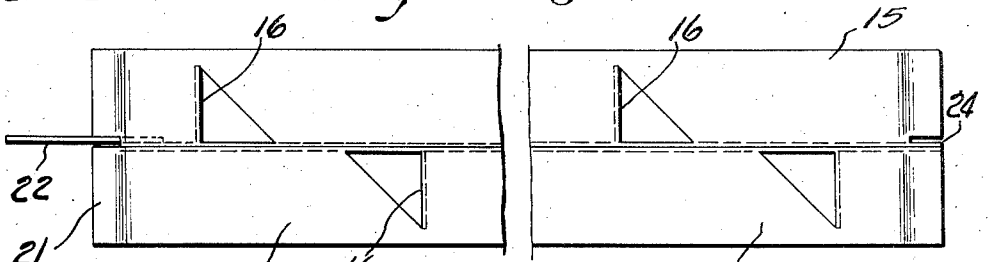


Fig. 6

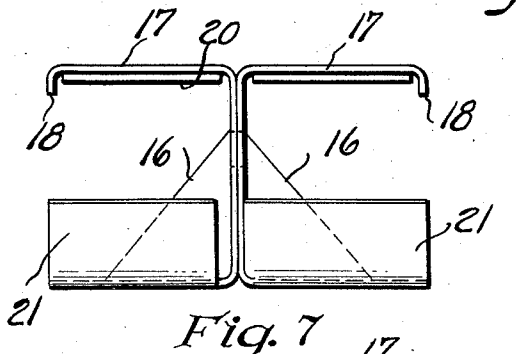


Fig. 7

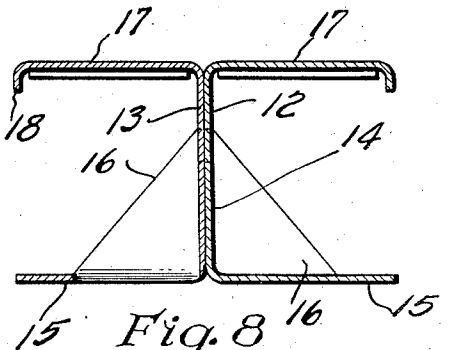


Fig. 8



Fig. 9

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UNITED STATES PATENT OFFICE

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SHIPPING BLOCK

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Application January 7, 1946, Serial No. 639,636

5 Claims. (Cl. 206—60)

1

The present invention relates to a fabricated shipping block for use in shipping stacks, bundles, and/or coils of metal by railroad car or vehicle from one destination to another.

One of the prime objects of the invention is to design a shipping block of sturdy and substantial yet light construction, for spacing the stacks or bundles from the floor of the carrying vehicle, and to facilitate the fastening or wrapping of metal straps, cables, or other securing means around each bundle, so that it can be readily handled by a crane or the like without damage to the bundle.

Another object is to provide a shipping block formed with upturned ends, so that there will be no gouging of the vehicle floor or support when the packaged stacks or bundles shift, due to sudden stops and starts or other rough handling of the car in which the bundles are loaded.

A further object is to design a light weight, rigid shipping block provided with suitable openings to facilitate the securing of the bundles on the blocks, which blocks can be used over and over again as shipments are made.

To the accomplishment of the foregoing and related ends, said invention then consists of the means hereinafter fully described, and particularly pointed out in the claims, the annexed drawings and following description setting forth in detail, certain means and one mode of carrying out the invention, such disclosed means and mode illustrating, however, but one of various ways in which the principle of the invention may be used.

In the drawings:

Fig. 1 is a part-sectional, side-elevational view of a railroad car showing bundles of sheet steel plates, each bundle being mounted on a pair of shipping blocks and being individually strapped and tied.

Fig. 2 is a sectional, end-elevational view.

Fig. 3 is an enlarged, fragmentary, side-elevational view showing a shipping block with a stack of metal strapped thereon.

Fig. 4 is an enlarged, top, plan view of my improved shipping block.

Fig. 5 is a side-elevational view thereof.

Fig. 6 is an inverted plan view of the bottom of the block.

Fig. 7 is an enlarged, end-elevational view of one of the blocks.

Fig. 8 is a transverse-sectional view taken on the line 8—8 of Fig. 5.

Fig. 9 is also a sectional view taken on the line 9—9 of Fig. 4.

2

Referring now to the drawings in which I have shown the preferred embodiment of my invention, the instant design is formed of lightweight sheet metal sections suitably punched and welded together to form a rigid block, the method of tying etc. being broadly similar to that shown in Patent No. 2,286,876, issued to me under date of June 16, 1942.

In the shipment of stacks or bundles of steel plates, coils, etc., from one destination to another, it is of prime importance that the material arrives without damage caused by bending, denting or buckling. The bundles or stacks must be suitably tied or otherwise secured, and the stacks must be secured and spaced from the floor to permit a sling to be attached so that it can be readily handled by a crane or other lifting device.

In many instances, it is general practice to use lumber for shipping blocks and bracing in the cars, this requires timbers or pieces of considerable size, and this usually becomes waste material when the shipment has reached its destination, this is both wasteful and expensive, and I have therefore perfected a fabricated metal shipping block which is relatively inexpensive, which can be used over and over again, and which spaces the bundles from the floor so that the tying cables and chains used for hoisting when loading or unloading can be readily wrapped around it.

The bulk of the steel shipments are usually via rail, and in the attached drawings I have shown the bundles on a conventional railroad car 10, which operates on tracks 11 as usual.

Each shipping block B is made up of a pair of light gage metal sections 12 and 13 respectively, each section being channel shaped in cross section as clearly shown in Figs. 7 and 8 of the drawings, the webs 14 of these channel sections being placed back to back and are welded together in the conventional manner.

The bottom legs 15 of the members are flat, and triangular shaped sections 16 are punched in each leg as shown, this section being bent vertically and is then welded to the center web 14 in the conventional manner so that they form reinforcing ribs that stiffen the block.

The upper leg 17 is formed substantially similar to the bottom leg, excepting that the outer edge is rounded as at 18 to form a smooth surface so that the tying straps or wire will not be cut or injured.

A plurality of transversely disposed open slots 19 is provided in the web 17, and the edges of

each slot are turned as at **20** to form a smooth surface for the tying strap, and also to prevent scratching of the bottom sheet of each stack or bundle resting thereon, these slots are preferably suitable spaced so that sheets of various sizes may be accommodated on the same skids, and so that the tying strap or wire lies close to the marginal sides of the stack, eliminating the possibility of the upper portion of the stack shifting on a lower position due to rough handling of the shipment.

The end sections of each block are bent as at **21** to form a skid that can be readily shifted in the car when necessary without gouging or splintering the floor, and a flat plate section **22** is welded to the front end of each web as shown, the front end being rounded as at **23**, and the rear end of the skid is slitted as at **24** to receive the end of the plate **22** when it is desired to form extra long blocks by fitting the blocks end to end.

Slotted openings **25** are punched in the web section of each block and accommodate the tying straps or wires **26** that secure the bundles on the blocks.

In practice, the blocks B are placed in predetermined spaced-apart parallel relation, and a stack of metal sheets S is placed thereon, steel straps or wrapping wire **26** is then threaded through the slots **25**, the ends being brought up and over the top of the stack, these ends being pulled tight and are then secured together in any desired manner.

The oppositely disposed straps **27** are placed against the underside of the upper leg **17**, thence leading up through the slots **19**, and thence over the stacks S with the ends pulled tight and tied in the usual manner to form a tightly bound, compact stack which prevents the sheets moving with relation to each other, and eliminates bending of corners or otherwise damaging the edges of the sheets.

The fact that the slots **19** are quite closely spaced insures small or large stacks being accommodated, as the slots utilized will be those closest the front and rear of the stack regardless of size.

When it is necessary to utilize an extra long block, the individual blocks are placed end to end with the plates **22** inserted in the slits **24**.

These bundles are of considerable weight and are usually handled by a crane or the like (not shown) for transfer from loading dock to car, and from car to warehouse or platform, a cable sling (not shown) being used for this purpose.

When it is desired to dispose of the plates in the stack, the straps **26** and **27** are severed and the material placed in a warehouse, stockroom, or immediately put in use, the shipping blocks being bundled together, returned to loading destination, and are used over and over again.

What I claim is:

1. A shipping block comprising channel-shaped members secured together in back to back relation, triangular-shaped sections punched in the lower leg of each member, said section being bent vertically and being secured to the web of the block to form a reinforcing rib, and a plurality of transversely disposed open slots provided in the upper legs of said members.

2. A construction as defined in claim 1 in which a vertical plate is provided on the front end of each block, and a slit in the back end of each block to accommodate the plate on a companion block and form a continuous shipping block therewith.

3. A construction as defined in claim 1 in which the outer edges of the upper leg, and the transversely disposed slots are turned to form smooth rounded surfaces.

4. A construction as set forth in claim 1 in which longitudinally disposed slotted openings are provided in the webs of the block.

5. A shipping package comprising a plurality of spaced-apart shipping blocks, each block comprising channel shaped members secured together in back to back relation with rib sections bent from the lower legs of the members, said ribs being bent upwardly and secured to the webs to form reinforcing ribs, a stack of metal mounted on the block, each block having its upper legs slotted, with the edges turned, straps disposed beneath the upper slotted legs with the ends leading upwardly through certain slots directly adjacent the edges of the stack and encircling said stack, spaced-apart openings in the web of the blocks, and straps extending through said openings and encircling said stack in the opposite direction.

TRAFTON D. SMITH.