

Jan. 19, 1926.

1,570,288

A. H. SMITH

INTERCHANGEABLE CAR UNIT

Filed Nov. 5, 1920

3 Sheets-Sheet 1

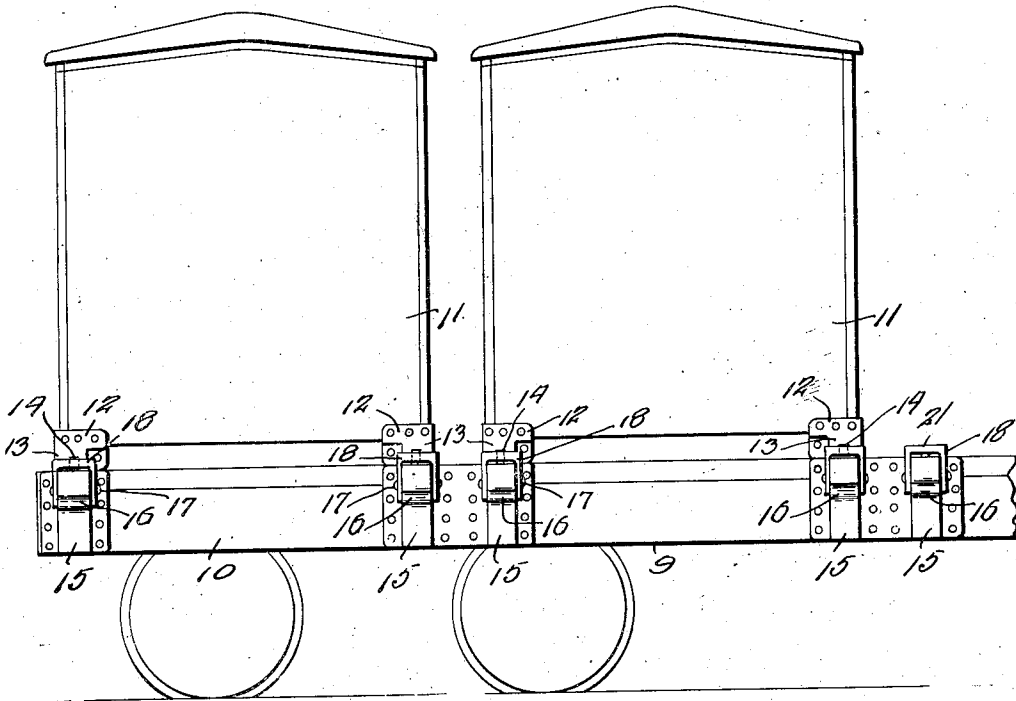


Fig. 1

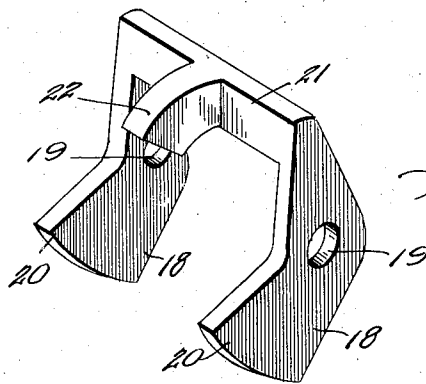


Fig. 7

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INVENTOR.

Witness
C. P. [Signature]

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3 Sheets-Sheet 2

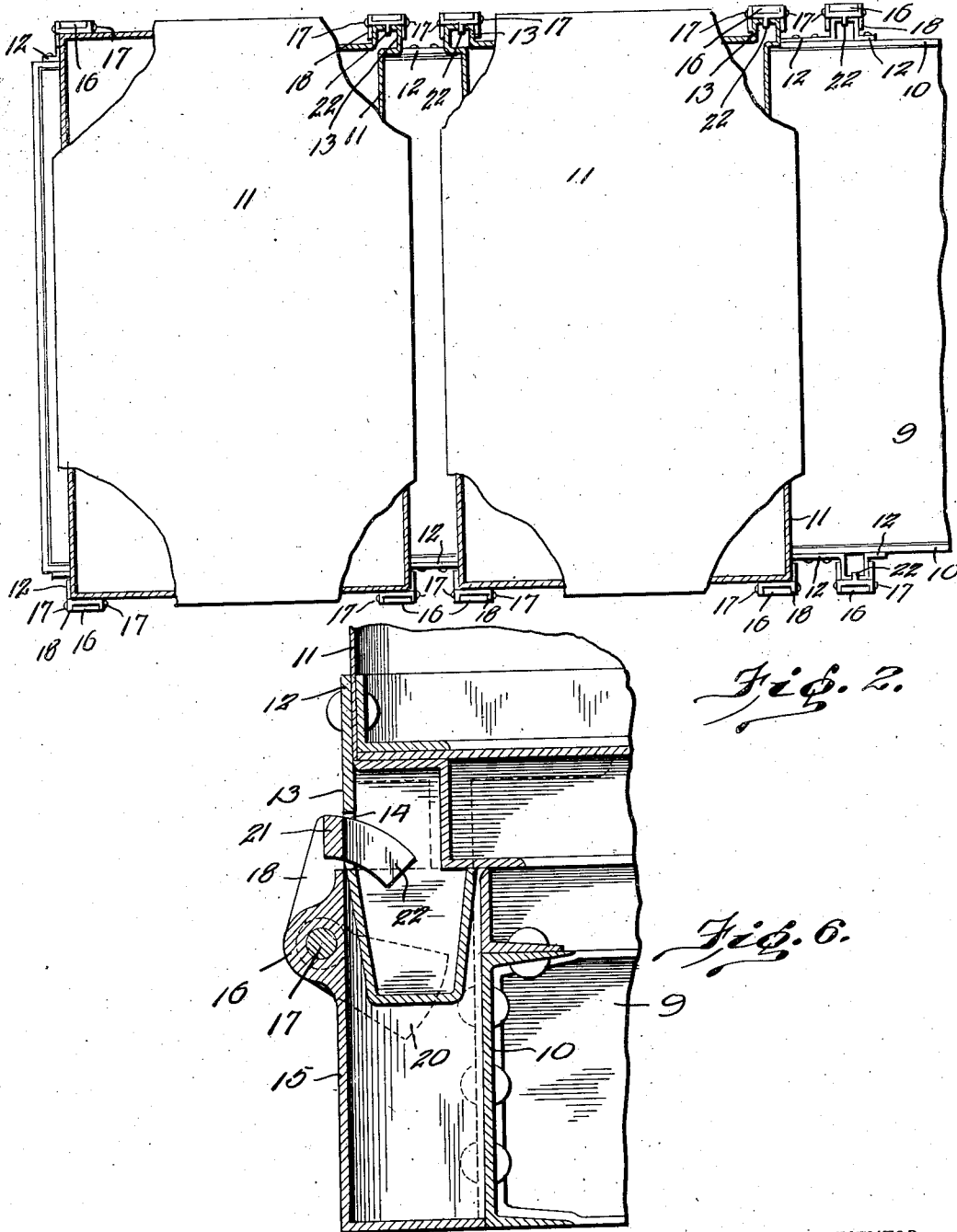


Fig. 2.

Fig. 6.

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3 Sheets-Sheet 3

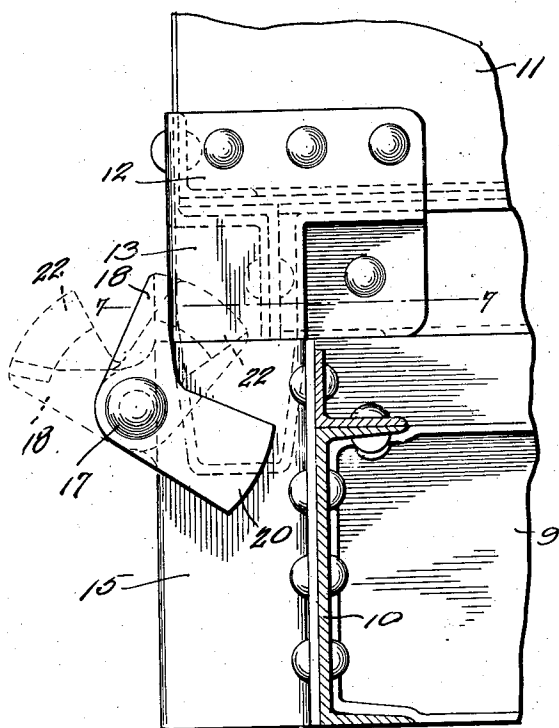
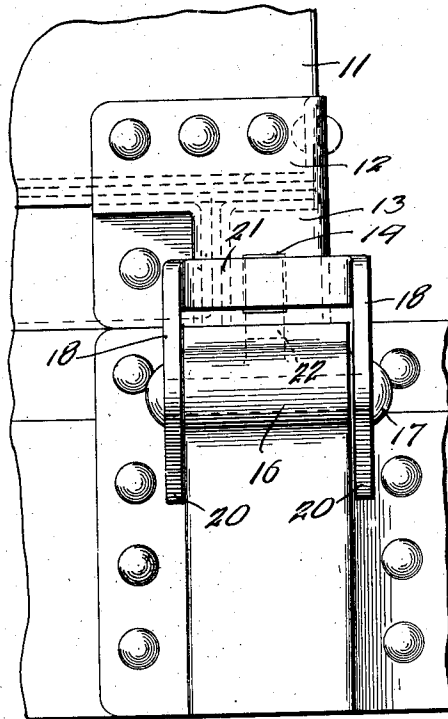


Fig. 3.

Fig. 4.

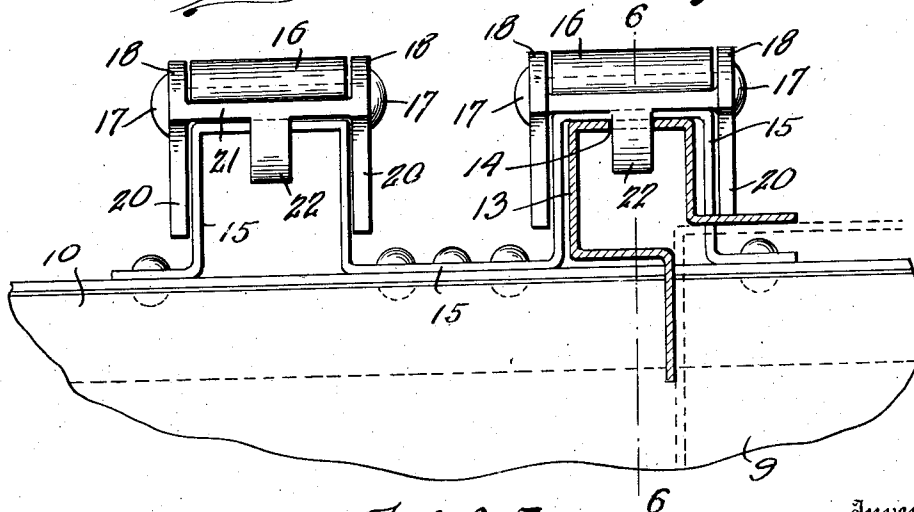


Fig. 5

Inventor

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R. H. Thompson

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UNITED STATES PATENT OFFICE.

ALFRED H. SMITH, OF NEW YORK, N. Y.; MAUDE EMERY SMITH AND EMERY HOLLAND SMITH EXECUTORS OF SAID ALFRED H. SMITH, DECEASED.

INTERCHANGEABLE CAR UNIT.

Application filed November 5, 1920. Serial No. 422,084.

To all whom it may concern:

Be it known that I, ALFRED H. SMITH, a citizen of the United States, residing at New York, in the county of New York and State of New York, have invented certain new and useful Improvements in Interchangeable Car Units, of which the following is a description.

The railroads suffer a loss by theft which amounts to millions of dollars per year in goods shipped, especially in less than carload lots; a further expense chargeable to less than carload lots is due to the fact that approximately 80 percent of way billing is due to less than carload lots.

Containers have been adopted by railroads and other carriers which are adapted to be loaded by the shipper, locked by the shipper and delivered to the carriers and loaded on special or standard cars for transportation. When such containers are loaded on cars, trucks, barges and the like, it is necessary to provide some means for anchoring the containers on the car to prevent its shifting or accidentally falling off the car and it is the purpose of my invention to provide a simple but efficient means to anchor the containers.

My invention contemplates providing the car, or the like, with a locking or anchoring means adapted to cooperate with a member on the container whereby the container is efficiently anchored on the car against displacement and shifting.

A further object of my invention is to so construct the anchoring means that it will be easy to operate, sustain its locked position under all service conditions and will not be affected by dust, cinders or the elements; and with those and other objects in view my invention consists in certain novel features of construction and arrangement of parts hereinafter more fully specified and claimed.

In the drawings:

Figure 1 is a side elevation of the end portion of a car and the containers mounted thereon.

Figure 2 is a top plan view of the same.

Figure 3 is an enlarged detail section of a portion of the car with my improved anchoring means attached, the container and said means being shown in elevation.

Figure 4 is a side elevation of Figure 3.

Figure 5 is a top plan view of the car

and anchoring means, part of said means on the container being in section.

Figure 6 is a detail vertical sectional view on the line 6—6 Figure 5.

Figure 7 is a perspective view of the locking pawl.

The reference numeral 9 designates a carrier of any approved construction, and 10 the side sill. In the specification I shall include trucks, horse or engine drawn, railroad cars including electrically propelled cars and barges in the term "carrier".

The containers 11 in which the goods to be shipped are placed may be of any approved type but are designed to be interchangeable and burglar proof and preferably fire proof and are adapted to be delivered to the shipper who will load and seal them at his factory and then deliver them to the railroad for mounting on a carrier for transportation to the city of destination and which may be removed from the car and delivered by a suitable carrier to the store or factory of the consignee who will break the seal of the shipper and railroad and unload the container and deliver it to the railroad to be again loaded either empty or full on the car.

At the lower corners of each container I rivet, or otherwise secure, castings 12 which snugly receive such corners, said castings having depending legs or standards 13 which are slightly tapered vertically as shown by dotted lines in the drawings. One wall of the legs is provided with a slot 14 which opens into the interior of the legs, said legs being, as shown, preferably hollow.

Hollow stake pockets 15 are secured to the carrier, preferably to the side sills 10 in any suitable manner, and are open at the top and provided with perforated ears 16 on which locking dogs are swingingly mounted on bolts 17.

The locking dogs consists of two side arms 18 having perforations 19 through which the bolt 17 passes, said arms having counterweights 20 at their lower end portions and connected at their upper ends by a bar 21 from one side of which projects the locking arm or tongue 22 which tongue is formed on a downwardly disposed arc whereby when the parts are assembled the tongue is adapted to swing through the slot 14 enter the hollow leg 13 in which it projects downwardly

thereby presenting an acute angle at the juncture of its under face and the side wall of the leg as clearly shown in Figure 6 in which position it is held against accidental movement by the counterweights 20.

When a container is loaded on a carrier it is firmly anchored against shifting and other undesirable movements by being locked at its four lower corners by my invention.

It is of course obvious that changes may be made in the details of construction without departing from the scope of the appended claims.

What I claim is:

1. The combination with a flat car, of a series of freight compartments removably mounted thereon, legs depending from said compartments, a series of pockets, secured to the side wall of the car and adapted to receive said legs and means locking said legs in said pockets.

2. The combination with a flat car, of a series of freight compartments removably mounted on said car, legs depending from said compartments and provided with perforations, a series of pockets secured to said car and adapted to receive said legs, and means secured to said pockets and adapted to enter said perforations in said legs and thereby lock the compartments to the car.

3. In a freight car a series of pockets secured to the car, locking dogs pivotally mounted on said pockets, a series of freight compartments removably mounted on the car and provided with depending legs adapted to enter said pockets, and provided with perforations through which said dogs project, thereby locking the compartments to the car.

4. In a freight car, a series of pockets secured to said car, a counterweighted dog mounted on each pocket, a series of freight compartments removably mounted on said car and having depending legs adapted to enter said pockets, said dogs adapted to interlock with said legs, thereby securing the compartments to the car.

5. In a freight car a series of vertically disposed pockets secured to the car, a locking dog pivotally mounted on said pockets, counterweighted arms secured to said dogs, and a series of freight compartments removably mounted on said car and having perforated depending legs, said dogs being adapted to project through the perforations of the legs when the legs are in the pockets, whereby the compartments are locked to the car.

In testimony whereof I affix my signature.

ALFRED H. SMITH.