Pallet Pools Offer Public Warehouses New Service Opportunities

After the war, between one and three million surplus pallets may be disposed of by the government. Commercial shipments of palletized unit loads are expected to become common. Some pooling method for collecting pallets and re-distributing them to industry is likely to be developed. The logical organization to provide this service is the public warehouse. It has the necessary transportation, packing and storage facilities. Now is the time for public warehousemen to prepare to secure this profitable business.

By MATTHEW W. POTTS
Materials Handling Editor

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IN February, 1941, the writer addressed the 50th annual meeting of the American Warehousemen's Assn., and discussed materials handling, particularly the matter of pallets. It was suggested that warehousemen get together and develop a standard pallet size most suitable for the commercial warehouse field, and that they prepare for the handling and storing of palletized unit loads.

Apparently, nothing was done to follow up this suggestion. When the impact of war struck in December, 1941, the armed services became the greatest warehouse operators in the world.

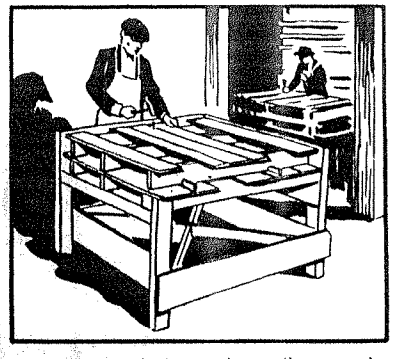
Army Developments

The first group to take the initial step in warehouse handling and storage methods, was the Office of The Quartermaster General, Field Operations Branch of the Storage Division. The preliminary work of establishing methods, for the most part, was under the direction of men who were not familiar with the details of materials handling methods, and they had to depend upon the advice of equipment manufacturers, which, in many cases, was not always of an unbiased nature.

They were faced also with the responsibility of getting methods and equipment into operation so as to obtain quick results. One manufacturer was able to make quantity deliveries on a fork truck with a load capacity of 2000 lb. Consequently, the system was predicated on this particular truck, with the result that the pallet of the Quartermaster Corps was made to fit that truck-load capacity. Hence, we have a standard Quartermaster pallet which is 32 in. long and 40 in. wide. A million or more of these were procured within a year, and placed in service throughout the country, and additional millions have been procured since then.

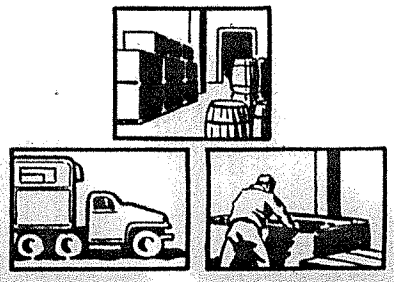
Since the Quartermaster at that time operated all of the General Depots, the 32 x 40-in. pallet was used by the Engineers, Ordnance, Signal Corps, and other service branches, and the Quartermaster also procured for those branches pallets 36 x 50 in., 42 x 48 in., 48 x 48 in., 42 x 72 in. and 42 x 56 in. These larger pallets were for use with fork trucks with capacities from 4000 lb. to 10,000 lb.

As the manufacturers of fork trucks increased their production, the Quartermaster General procured the larger trucks for all services, and the use of larger pallets than the Quartermaster's standard 32 x 40 in. became more common.



The bottom deck of the pallet can be nailed on evenly with the guidance of the jig sides. The 8½ in. gaps are spaced with a wooden gage carried in the worker's apron. Most public warehouses have adequate facilities or can develop them for pallet maintenance service.

The public warehousing industry has the necessary transportation, storage and packing facilities for handling pallet pool distribution.

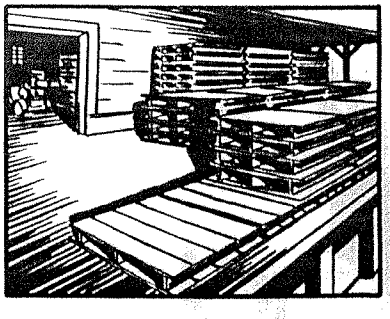


The Navy, through the Bureau of Supplies and Accounts, started its materials handling program in 1942. By the time it was ready to procure fork trucks, the manufacturers were in quantity production, so the Navy bought very few 2000 lb. fork trucks and obtained more of the larger type, even 15,000 lb. units. For this reason, it standardized on the 48 x 48 in. pallet for inter-depot and overseas shipment, and for intra-depot movements on the 42 x 66-in. pallet.

Here again, they procured, not thousands, but millions of these pallets which are distributed throughout all the states of the union, and to many of the advance bases, to Australia, India, Iceland and Europe. We hope we'll soon be shipping palletized unit loads into Japan itself.

Postwar Surplus Pallets

However, because of this large use of pallets by the various branches of the armed services, there will come a time when they will not be required for the storing of supplies, and they will be classed as "surplus materials for disposal" with the result that possibly somewhere between one million to three million pallets will be disposed of by the government. The largest volume will be in the 32 x 40 in., 48 x 48 in. and the 42 x 56 in.



If the more expensive and well-built pallets are used it will not be economical to scrap them. Consequently, it will be necessary to develop some pooling method so that these pallets can be collected in certain areas for re-distribution to industry as needed.

Outstanding and Constructive

ONCE again Matthew W. Potts has come up with a constructive and germinal idea of conspicuous merit. His record in this respect has been outstanding. For example:

He coined the phrase "Palletized unit loads" in his articles in *D and W*.

In the January, 1941, issue, he asked "Are Palletized Shipments Possible?" It has been proven that they are.

In the February, 1941, issue, the article "Coordination Leads to Progress" pointed out the way to cooperation and worked to promote and foster the idea of palletized unit load shipments.

In February, 1941, at the 50th annual meeting of the American Warehousemen's Assn., Mr. Potts pointed out to warehousemen that they should act to standardize pallets before someone else did it for them. The warehousemen missed this opportunity, and now are faced with standards developed by the Army and Navy.

The work of *D and W*'s materials handling editor, as Materials Handling Coordinator for the Office of the Quartermaster General of the U. S. Army did much to establish the use of the pallet system of handling in Army warehouses throughout this country and abroad. His work as technical consultant with the Bureau of Supplies and Accounts of the U. S. Navy has done much to promote the use of this system in naval operations.

Another article in *D and W* in November, 1941, entitled "The Unit Load Principle," by C. H. Barker, Jr., inspired by Mr. Potts, also stressed the progress being made by this method of handling.

In the August, 1942, issue, Mr. Potts wrote an article entitled "Shipment by Palletized Unit Loads a Reality," and since that time, additional progress has been made in this field.

In the January, 1943, issue, Mr. Potts again described shipments of palletized unit loads in connection with his work as materials handling coordinator for the quartermaster General.

Many other articles have appeared on the same or related subjects, but these mentioned have been outstanding and constructive contributions in this field.—The Editor.

sizes. It is logical to assume that the 42 x 66 in. sizes will be picked up by stevedoring companies for use in marine terminals, etc.

These will be for storage purposes, but the other pallet sizes, no doubt, will be used for palletized unit load shipments by many manufacturers who are now learning the value of this method of shipment.

"Single Shippers"

Before the armed services procured so many pallets, industry had been thinking along the line of building pallets of light cheap construction to be called "single shippers," that is, they would carry one load and then be discarded as scrap lumber. Of course, it is better to have a good pallet, and use it over and over again, not only for inter-plant shipment, but also for handling several operations within the plant.

If the government surplus in pallets amounted only to a few hundred thousand they would be quickly bought up by industrial plants for use within their own plant areas, but since the quantity that will be surplus material, is large, and the price should be low, it is logical to assume that the cheap "single shipper" type of pallet will not be developed. Instead, industry is likely to absorb the surplus pallets.

Pallet Pools

If the more expensive and well-built pallets are used it will not be economical to scrap them. Consequently, it will be necessary to develop some pooling method so that these pallets can be collected in certain areas for re-distribution to industry as needed.

This will require an organization equipped with trucking facilities to pick up the pallets or deliver them, as required, and also with the necessary equipment for repairing and maintaining the pallets, with sufficient storage space to carry a large quantity for immediate demand requirements.

Warehousemen's Opportunity

The logical organization to provide this service is a public warehouse. Both merchandise and household goods warehouses are equipped with packing departments, and after the war should have the available labor and machinery for maintenance and repair of pallets. They have the necessary transportation facilities, and are known in their local communities.

In the past, warehouses have supplied packing cases for their own use and the use of others, and the same is true regarding barrels for packing. These were not always new, but quite frequently were used items that had been sold more than once. The warehousing industry probably cannot act as a unit in connection with this pallet pool idea. In all likelihood, it will be more feasible for individual operators in selected areas, where the demand for pallets will be greatest, to go to work on it separately.

For this reason, the warehouseman should become conversant with the types and sizes of pallets that are available, and know their best use for a wide variety of operations.

This important subject of pallets and palletized unit load shipments has been covered by *DandW* in a number of articles in the past three years. We will continue to present fresh aspects of it in the future. How soon the government will offer surplus pallets for sale is not known. How they will be disposed of has not as yet been planned.

However, this should not prevent any progressive warehouseman from giving it consideration and getting prepared to take advantage of the opportunity when it is presented.

Suggested Surveys

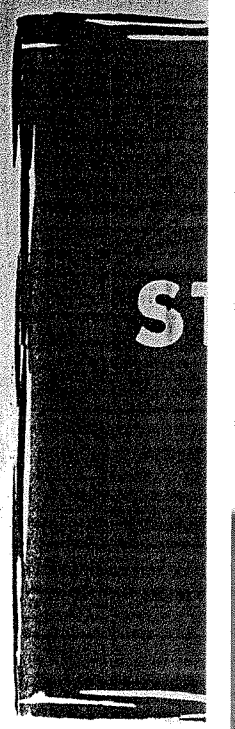
It might be well to start an initial survey in certain localities to find out what sizes can be used, the quantities that may be required, the potential number of outlets in a given area, etc., rather than to wait until the pallets are offered, and then try to acquire the information while someone else is acquiring the pallets.

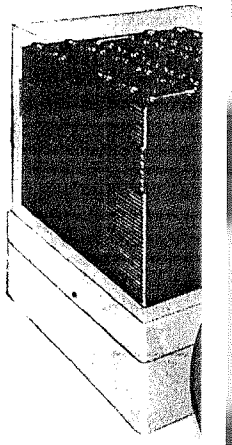
More than ever, warehousemen are going to require pallets for storing and shipping commodities. Public warehouses are natural and established centers of distribution in the areas they serve. Most warehousemen are familiar with the railroads, trucking companies and industrial plants within their areas, and should be able to secure the necessary information to determine whether or not they should become the "pallet pool" centers in their respective regions.

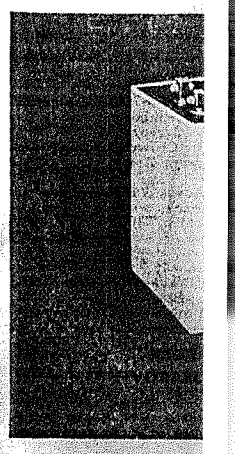
Pallet pool operations should prove profitable and another source of revenue for the warehousing industry in the postwar period. Its worth investigating now.

Join Allied Distribution

Three western firms have been admitted to membership recently by Allied Distribution, Inc., national warehouse chain, according to announcement made by W. D. Leet, president, in Chicago. The three firms are: Burch Warehouse & Transfer Co., Pueblo, Col.; Minnesota Storage Co., Winona, Minn., and Terminal Warehouses, Inc., Tacoma, Wash.







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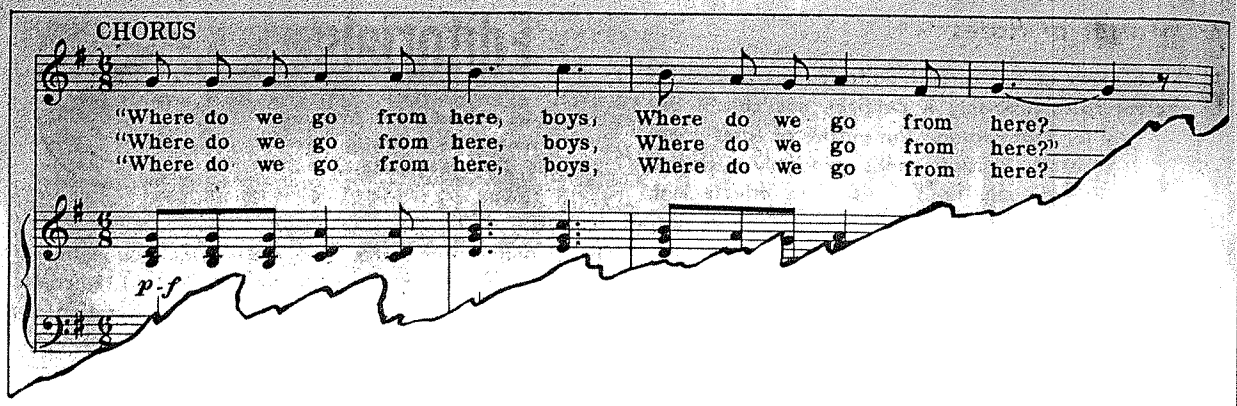

Where Do We Go From Here?

Will the materials handling equipment industry maintain the position it has gained during the war, or will it allow itself to slip back into industrial nonentity for lack of foresight, organizing ability and intelligent cooperation? Its opportunities have never been greater. If it fails to organize itself as an industry its future will be a repetition of the disintegrating process it experienced after the last war.

By MATTHEW W. POTTS
Materials Handling Editor

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IT is seldom that we see conditions repeating themselves in practically identical circumstances, yet this apparently is happening today in the materials handling equipment industry.

In 1917, materials handling had moved from the restricted limits of the handling of bulk supplies only, such as coal, ore, sand, gravel, etc., into an era where new types of conveyors were being developed for the handling of packaged supplies, and for the handling of materials through various production operations.

An Association Was Formed

The industrial truck, the hand and power lift truck and skid system, small industrial cranes, and many other mobile units, had been built for the war effort and had been found practical in a wide variety of operations. The industry had become conscious of itself. A trade association was formed, and extensive plans were made to maintain the position the industry had won by its contributions to the war effort.

Unfortunately, these plans were not carried out. The post-war depression saw many of the manufacturers of this equipment going out of business. Then came the common labor shortage. Again the materials handling industry forged to the front.

Engineers Became Interested

By 1928 there was a professional division in The American Society of Mechanical Engineers known as the Materials Handling Division. Engineers became interested because materials handling pointed a definite way to solve the common labor shortage, to reduce production costs, to utilize space better in factories and warehouses, to promote safety and reduce the number of industrial handling accidents, and many other advantages through the practical application of mechanical materials handling principles.

There Was a Steady Growth

There was a steady growth of the use of materials handling equipment during the production years 1923 to 1929. Many plants established materials handling departments, studied new production operations and made changes to use more mechanical equipment for handling materials from one production step to another.

The principles of materials handling, especially in connection with conveyors, were incorporated in production machines used for plating, cleaning, washing, bottling, etc. The advent of the crawler tractor with bulldozer attachment, front-end scoops, and of large graders and scrapers, introduced better materials handling methods in the contracting and construction field.

Then the Depression Came

Then came the depression which made manpower plentiful. Mechanical methods were set aside, and the trend was to return to the "pick-and-shovel" gang, the two wheel hand truck, and hand handling of materials. At this point there was a decided lack of foresight on the part of materials handling equipment manufacturers. They stopped advertising; they reduced sales forces; they reduced the development of new equipment. In fact they crawled into a hole and pulled the hole in after them.

So far, we have stated the case of what actually happened. It is logical to ask: "What could have been done?" Let's not argue the mistakes of the past. It is the future that concerns us now. Let's try to prevent the same thing from occurring again under similar circumstances. We find today that the materials handling equipment industry has just been going through a cycle like the one we have described.

The Situation To-day

Today the industry is larger; its production capacity has been increased a thousandfold; its products are being distributed all over the world; the training programs of the Army, Navy and Marines have acquainted thousands of future industrial personnel with the many advantages of using materials handling equipment.

It is only logical therefore, to ask: "Where do we go from here?"

At present, no one is in a position to state definitely what is going to happen, or what method will be employed in disposing of surplus ma-

terials handling equipment which will be on hand when hostilities end.

In the reconversion period, a number of industrial plants will be able to revamp their conveyors and production materials handling equipment to fit new operations. Tractors, trailers, fork trucks, industrial cranes, hand trucks, can all be reconverted easily to new production operations to meet demands for domestic products. The return to industry of millions of service men should have the effect of reducing labor shortages, and this will affect adversely the introduction of more materials handling equipment, on the basis of saving labor.

Post-War Surpluses

As stated above, the materials handling equipment industry has an expanded production capacity which executives will want to keep going at a maximum rate, in order to keep costs down. However, they are going to be faced with the most severe competition of second-hand machines, surplus equipment, delays in reconversion plans, and many other factors which are beyond their control. They should now be asking themselves: "Where do we go from here?"

Some of the more progressive executives have already asked this question, and have tried to set in motion plans to organize the industry so as to do a real engineering and sales promotion job. But they are not meeting with success, because of the diversity of equipment and the fact that it serves all industries.

Need of Unity

In a number of cases one form or type of equipment is in direct competition with another. It is necessary, however, for the industry to become solidified, so as to present a united front, if it is to maintain its present position.

Labor is likely to oppose the use of materials handling equipment as soon as manpower is available to do the job. Manufacturers must show conclusively that their equipment does not create unemployment. They must show how and why it protects workers by reducing industrial accidents, by eliminating fatigue, and by promoting the workers' general welfare in various ways. It must be shown that men no longer need nor want to perform heavy, laborious lifting, shifting and handling of materials. It must be demoustrated that by using materials handling equipment, the operators thereof enter the classification of semi-skilled or skilled workers, and therefore earn more money. The industrial plant that uses good materials handling methods is able to produce more at a lower cost, to pay its employes higher wages, thereby creating a larger buyers' market, which, in turn, creates more employment.

Need of Education

It is going to be necessary to tell labor and the public more about materials handling, and to point out its advantages. This can be done by good and consistent advertising, by illustrated lectures, and through many other mediums which are available and which have proved their worth. Materials handling equipment manufacturer's should prepare now a plan to prevent a repetition of what happened after the last war. At present, all signs point to a repetition, and now is the time for manufacturers to stop and decide where they go from here.

The Road Is Open

The road is open to them. Thousands of new prospective customers have been created by the training programs instituted by the armed forces among officers, enlisted men, and even civilian personnel. When these men go back into industry, they will want to employ modern methods on their handling operations. But they will need the support of materials handling equipment manufacturers in promoting and demonstrating why the new and improved methods should be employed. They will have to sell management, they will have to sell labor, and they will have to do it on an impartial basis rather than from the standpoint of some particular piece of equipment.

Drifting Will Be Fatal

Are the materials handling equipment manufacturers ready to take this step? Have they a prepared plan, or are they just going to drift and devise makeshift plans on the spur of the moment? If they simply drift, there is no question as to where they are going from here. They can fill in the space themselves.

However, if they will set forth now a definite program of training, and education to develop materials handling industry consciousness, the opportunities before them are unlimited.

There are still hundreds of industrial plants that have no modern methods or materials handling equipment. There are still thousands of places where the use of even two-wheel hand trucks will materially reduce the burdensome labor which is now being performed by man. We don't need to think of foreign markets until we have developed our own domestic markets.

Opportunities Numerous

It is going to be necessary to have closer coordination between the different types of common carriers, so that modern methods of packing and shipping, which utilize mechanical handling equipment, can be transferred easily from one type of carrier to another.

Certain industries are going to have to modernize their methods of distribution to eliminate the necessity of breaking down unit loads. Warehousemen will have to equip themselves with modern materials hand-

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The Question Is Unequivocal

TO-DAY, the materials handling equipment industry is larger than ever; its capacity to produce has increased a thousandfold; its products are being distributed all over the world; the training programs of the Army, Navy and Marines have acquainted thousands of future industrial personnel with the many advantages of using materials handling equipment.

Is it not logical to ask: Where do we go from here?

In the reconversion period after the war the industry will be faced with the most severe competition of second-hand machines, surplus equipment, and by delays in reconversion plans and other factors beyond its control.

Is it not logical that its members should be asking themselves: Where do we go from here?

Manufacturers should be preparing a plan now to prevent a repetition of what happened after the last war.

The road is open to them. Thousands of new prospective customers have been created. There are still hundreds of industrial plants that have no modern handling equipment. Certain industries will have to modernize their distribution methods to eliminate the necessity of breaking down unit loads. Warehousemen will have to equip themselves with modern handling equipment to handle new types of packaged merchandise. Air cargo has opened a new field for loading and unloading equipment. New assembly lines for new products will require materials handling principles.

All of these things call for coordinated effort on the part of materials handling equipment manufacturers, and will require the best engineering, educational and advertising programs possible.

Now is the time for the industry to coordinate and unite in answering the question: Where do we go from here?