

TS 1893

.U6

Copy 1

# HANDBOOK OF MECHANICAL RUBBER GOODS



*For the*  
SHIP-BUILDING INDUSTRY

**United States Rubber Company**  
MECHANICAL GOODS DIVISION



HANDBOOK  
OF  
MECHANICAL  
RUBBER GOODS

*For the SHIP-BUILDING INDUSTRY*



PUBLISHED BY

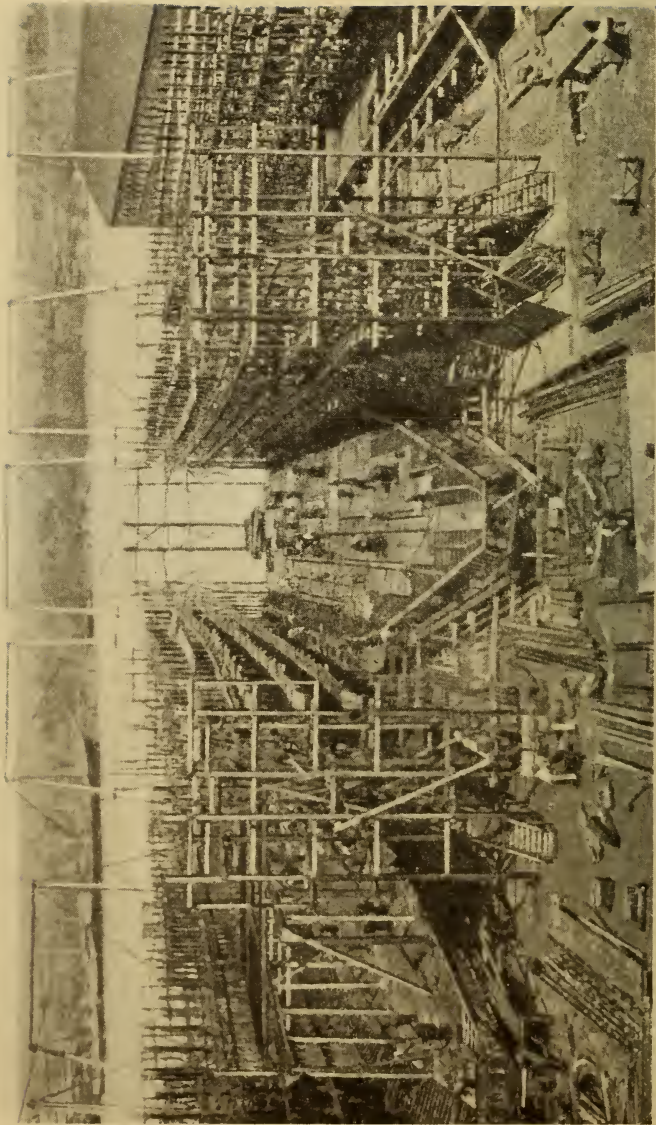
**United States Rubber Company**

MECHANICAL GOODS DIVISION

NEW YORK CITY

U. S. A.

3  
3  
3  
3  
3  
3



TS 189  
-U

© 528556

[2] JUN 20 1919  
JUN 20 1919

## FOREWORD

**T**HE application of Mechanical Rubber Goods involves much more than a thorough knowledge of the manufacture of rubber products. It also necessitates a long period of actual experience and resulting knowledge of the requirements of each particular industry and the physical conditions contributing to the actual service expected from a given article in that industry.

The United States Rubber Company is endeavoring not only to sell its product for so many dollars, but is also vitally interested in giving so many days or other units of service per dollar invested.

With this thought in mind, this Handbook of Mechanical Rubber Goods is published. It is a compilation of the recommendations for United States Rubber Company's products arranged in such a manner as to enable an operator to readily find the recommendation for any particular rubber product used in his plant.

We have attempted to treat those conditions which can be regarded as general in this industry. The specific conditions can only be efficiently considered by the personal inspection by a competent mechanical goods sales engineer and his resulting recommendation.

We have made a study of the working conditions of the industry herein considered and the recommendations made are not based on theory, but on actual practice spread over a manufacturing period of forty years, and the study of service conditions of all classes of mechanical rubber goods during that time.

UNITED STATES RUBBER COMPANY,  
Mechanical Goods Division.

19-12279





## AIR HOSE

*Main Line and Leaders*

THE largest investment made by Ship-building Companies in rubber goods, annually, comprises the purchase of air hose. This material is used for conveying the air from the compressor pipe lines to the pneumatic riveters, chisels, drills, punchers, etc. The general practise is to use  $\frac{3}{4}$ -inch hose for the main line and  $\frac{1}{2}$ -inch hose for the leaders.

Air hose used in ship-building, to be successful, must withstand considerable abrasion on the cover, due to dragging around over structural steel. It must also be so constructed as to momentarily withstand the contact with hot rivets.

The carcass of the hose must be designed to readily take care of a working pressure of about eighty pounds and in some cases a 50 per cent. overload, due to the sudden shutting off of the air at the "gun." The carcass must also produce flexibility in the hose, thereby preventing it from kinking, which in turn prohibits the intercession of the air when the hose is abruptly bent around a sharp corner.

The tube must be so compounded, or constructed, as to enable it to readily withstand the vaporized oil coming from the compressor, thereby preventing porosity. If the tube should disintegrate because of the oil, small



## S H I P - B U I L D I N G

particles of rubber would soon clog the "gun." This condition would naturally result in a slow working tool, and loss of time to the operator. The tube must be flexible enough to readily conform to acute bending without rupturing the tube.

For air-tool work in shipyards we recommend our No. 4810 Air Hose. This hose has a  $\frac{1}{8}$ -inch cover of a tough rubber compound that will readily withstand the abrasive conditions which air hose must meet in ship construction.

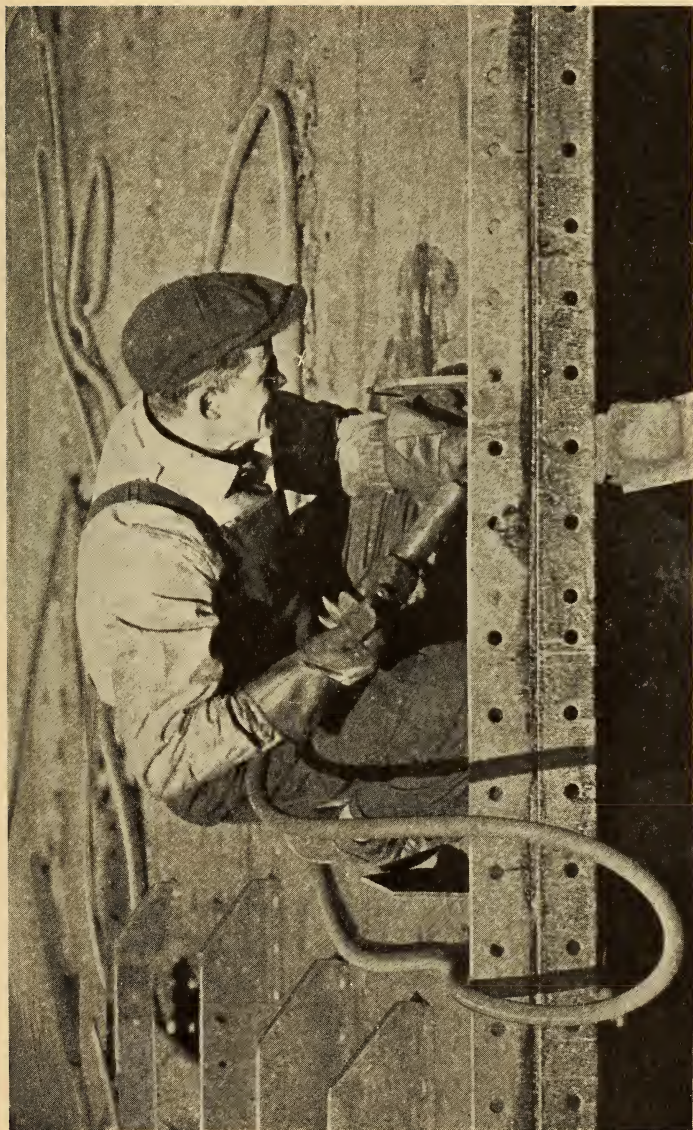
The carcass is made of braided plies, which readily give the required bursting strength and at the same time lend the necessary flexibility to prevent kinking or collapse. The rubber between the plies is of sufficient quality as to make it practically impossible to separate the tube from the carcass or the various plies from each other. Naturally a construction of this kind prevents the much-experienced trouble of ply separation.

No. 4810 Air Hose has a  $\frac{1}{8}$ -inch oil-proof tube which is about twice as heavy as is usually employed. Its extreme pliability and resiliency prevent rupture when the hose is curved abruptly.

All of the above units are joined by wrapping and vulcanizing in open heat, a superior process to molding, which is generally employed.

In recommending No. 4810 Air Hose for shipyard service, we have taken into consideration the loss of time







## S H I P - B U I L D I N G

caused operators by inefficient air lines, i.e., air lines in which there are slow leaks that result in the slow and intermittent action of the air tools.

4810 Air Hose has proven to be the most economical in ultimate cost for the work outlined above, particularly when the operator takes into consideration all items of cost concerning air hose; such as leakage of air, consequent loss in coal, loss in labor, etc.

We do not recommend wire winding. It is unnecessary. No. 4810 Air Hose is armored with a tough cover and the elimination of the wire alleviates hammering out flattened wire often caused by an accident.

The air-tool operator can handle No. 4810 Air Hose much more proficiently than heavy armored hose, due to its flexibility and light weight.

Made in the following sizes:

$\frac{1}{4}$ -inch to  $1\frac{1}{2}$ -inch, inclusive.

### CONNECTING PIPE LINE

**A**FTER ships have been launched in a great many yards, the air is taken aboard the ship from the dock by means of a large piece of air hose. This hose connects the main pipe line on the dock to the main distributing valves on the deck.

The hose used is generally 2,  $2\frac{1}{2}$  or 3-inch. As a rule, it must carry an average working pressure of 100 pounds and must be flexible, so as to readily take the



curvature from the dock to the side of the ship and then again from the side of the ship to the deck.

For this service we recommend 2, 2½ or 3-inch GRANITE Air Hose, in either 5 or 6-ply, depending upon the air pressure in use.

We do not recommend wire winding for this service as it is unnecessary, because of the absence of continuous abrasion.

### ACETYLENE HOSE

THE extensive use of acetylene welding apparatus, which has come into vogue in recent years, has also brought about an increasing demand for acetylene hose.

Acetylene hose conveys the gases (Oxygen and Acetylene) from the stored cylinder or generator to the blow pipe. It is usually furnished in lengths of 25 feet, 50 feet, or 100 feet.

While the maximum working pressure on this hose seldom exceeds 150 pounds, it is advisable to have hose with a strength great enough to resist the excessive pressure that is occasionally encountered through faulty adjustment in the regulating valves by an inexperienced operator.

The tube of a poor grade hose will often disintegrate and clog the flow of gas, both thru the hose and thru parts of the torch.

The oxygen cylinder, which carries the greatest pres-



## S H I P - B U I L D I N G

sure, is generally charged to 1,600 pounds per square inch. As this pressure is reduced at the cylinder by the regulating valve, the high pressure is never carried into the hose except thru faulty adjustment of the valve.

It is not essential, however, in every-day shop work, to manufacture a hose to withstand a maximum pressure of 1,600 pounds; but as a preventative measure it is very wise to have a piece of hose which has a great margin of safety over the pressure normally encountered.

For this class of service we recommend our RAINBOW Acetylene Hose, which is made with a red or black cover





to designate oxygen and acetylene lines. This is a light, flexible hose that will not kink when it is abruptly bent around a corner as is often necessary in effectively using the torch.

RAINBOW Acetylene Hose also has a cover designed to handle with efficiency the abrasion encountered in this class of work.

Regularly furnished in the following sizes:

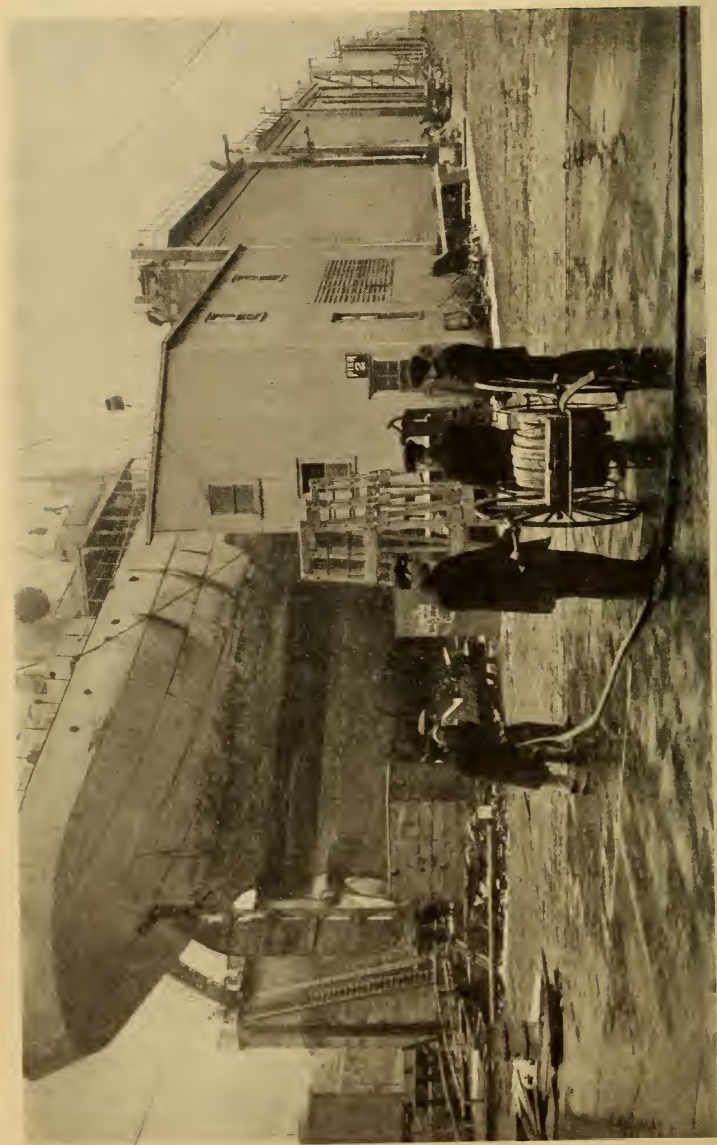
1/4-inch, 5/16-inch, 3/8-inch, and 1/2-inch, and constructed similarly to 4810 Air Hose.

## FIRE HOSE

**F**IRE hose is a very necessary adjunct in shipyards, due to the great quantity of wood used in various classes of construction. The yard must not only be protected, but the ships must also have fire hose for fire-protection on board.

We recommend for this service EUREKA brand, Single Jacket, Cotton Rubber-lined Fire Hose.

Eureka Hose is made so as to readily withstand the pressure generally used on fire-protection hydrants in shipyards. It has a tube that will not crack, or harden, if properly taken care of while lying idle. To give maximum service, Eureka Hose should be thoroughly dried after using, and preferably carried on a reel. Running water through Eureka Hose every 30 to 60 days prolongs its life.





It is generally furnished in 1½-inch, 2-inch, and 2½-inch sizes. Couplings are regularly furnished in expansion ring pattern. If different thread than standard iron pipe thread is desired, a complete thread description or sample coupling should be sent to the factory.

We also manufacture for certain conditions, "Eureka Best" Linen Hose, which is made in any length desired and labeled strictly in accordance with the requirements and specifications of the Underwriter. "Eureka Best" Linen Hose is an unlined hose for indoor fire protection and can be very conveniently folded on fire hose racks made for this purpose.

### STEAM HOSE

**T**HE use of Steam Hose in shipbuilding or ship repair yards is generally confined to the boiler room of the power plant, the boiler room of the completed ship, or for the purpose of thawing out frozen dry docks.

In the latter case the hose must stand extreme temperature, due to the heat of the steam inside of the hose and the climatic temperature below freezing point on the cover of the hose.

A bursting steam hose is very liable to prove quite injurious to workmen. An efficient hose for this service must have a tube that will resist the vulcanizing tendency of steam. The duck must have sufficient strength to handle the high pressure often encountered in con-



## S H I P - B U I L D I N G

veying steam. However, holding pressure does not necessarily involve adding plies.

The cover must not only be tough to withstand the wear occasioned by dragging the hose around, but it must also be so constructed as to prevent cracking, due to the extreme temperatures experienced when the hose is used for thawing out docks. Wire winding does not permit the natural expansion of hose under steam pressure.

We recommend Giant Steam Hose for this service. Giant hose embodies all of the necessary features outlined above, and is built especially to economically handle service encountered in boiler cleaning and similar work.

We construct Giant Steam Hose to meet the temperature corresponding to the pressure under which the hose is used and thereby often reduce the number of plies which inevitably reduces the ultimate cost.

The general sizes of steam hose used in shipyards are  $\frac{3}{4}$ -inch by 4-ply, 1-inch by 5-ply,  $1\frac{1}{4}$ -inch by 5-ply, and  $1\frac{1}{2}$ -inch by 6-ply.

## SUCTION HOSE

**S**HIPYARDS, necessarily being located along the water front, often find it necessary to dispose of quantities of water by suction pumps. A flexible pipe in the form of hose is required from the pump to the water. This hose is frequently called upon to handle grit, sand, and mud in the water.





As a general-purpose hose for this work, we recommend our ELEPHANT Suction Hose. This hose is generally furnished in sizes from 1½-inch to 4½-inch. It is manufactured in either smooth or rough-bore construction and usually is furnished in 10, 15, 20 or 25 foot lengths.

On all orders for suction hose of whatever type, when fittings are not ordered with the hose, it is essential that orders specify whether the ends should be straight to accommodate couplings or enlarged to accommodate nipples. The outside diameter of the shanks of couplings for a given size is only a very little larger than the inside diameter of hose of the same size, so that it is not necessary that the hose be larger at the ends than elsewhere. Nipples are considerably larger in outside diameter than the inside diameter of hose of corresponding sizes, so that for nipples the ends should always be enlarged. In large sizes it is well to have the nipples built into the ends of suction hose. For this there is no extra charge other than for the fittings used.

## WATER HOSE

**T**HERE is a very limited quantity of Water Hose used in various ship-building plants, but where an occasional length is required for washing-up, concrete mixing, etc.; we recommend RAINBOW brand.

This hose is a molded water hose of continuous

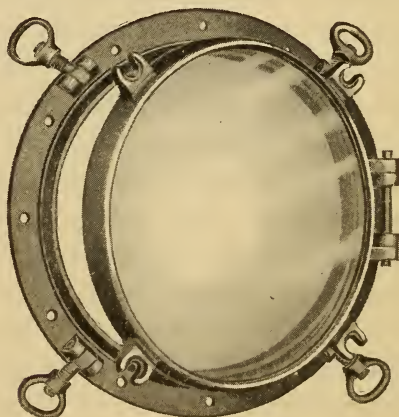


## S H I P - B U I L D I N G

length, which enables the user to obtain any length desired without loss due to remnant. It is a high grade general-service hose, especially designed to meet the service requirements of general water-hose usage.

It is made in the following sizes:

$\frac{1}{2}$ -inch,  $\frac{3}{4}$ -inch, 1-inch,  $1\frac{1}{4}$ -inch and  $1\frac{1}{2}$ -inch.



### PILOT PORT AND HATCH RUBBER

**P**ORT or Hatch Rubber, as the name implies, is used as a cushion and air-tight gasket on port-lights and hatches.

General atmospheric conditions, salt water, and the compression to which the rubber is subjected while the port-lights or hatches are closed, tend to harden or crack the ordinary rubber compound. PILOT Port and Hatch Rubber is especially constructed to withstand all



of the conditions set forth above, and to readily regain its original contour and resiliency when the port-lights and hatches are opened.

It is regularly furnished in strips, the thickness, length and width of which are usually specified by the consumer.

### MATTING

**C**ORRUGATED Rubber Matting is used for various offices and hallways, by ship-yard builders, and is also furnished for various places on board ship.

For this service we recommend our **PILOT** Matting, regularly furnished in 36-inch widths and any length desired. The usual thickness used is 1/8-inch. We manufacture this matting in all thicknesses from 1/16-inch to 1/2-inch and any desired width up to 48 inches.

### USCO SHEET RUBBER FLOORING

**T**HERE are floor spaces on board ship where a durable covering, together with handsome appearance, add greatly to the desirability of using **Usco Sheet Rubber Flooring**.

We particularly recommend this material for any enclosed cabin space; such as the pilot house, dining saloon, companion-ways, etc.

**Usco Sheet Rubber Flooring** is made in any color or design desired and is constructed by the factory to fit



## S H I P - B U I L D I N G

the space for which it is intended. The process employed in the manufacture of this material enables us to furnish a solid sheet of flooring, which is absolutely impervious to moisture.

Usco Sheet Rubber Flooring can be successfully laid on any base (wood, concrete or metal), and our method of laying it prevents any moisture from getting under the rubber flooring, thereby eliminating any danger of cracking or buckling.

Usco Sheet Rubber Flooring is quiet, sanitary, non-slipping, beautiful in appearance, and extremely durable. The ultimate cost of this material is lower than any other floor covering of which we know.





## BELTING

**M**ANY shipyards have wood-working plants operating in connection with the raw materials division of the business. Shipyards using considerable wood in either way or ship construction, have wood-working plants forming a part of the shop system.

Where such a plant is operated it is obviously necessary to transmit the power to various machines by means of belting.

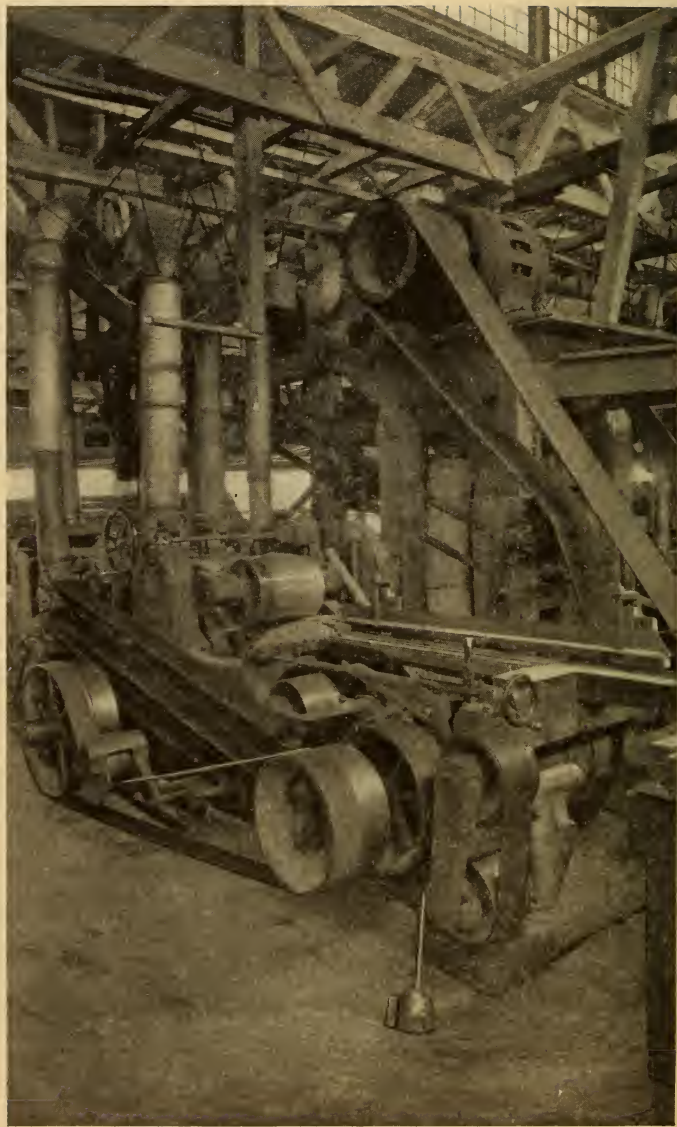
## RAINBOW BELT

**F**OR those drives demanding a heavy belt for large horsepower regardless of the speed, such as the main drive, re-sawing machines, etc., we recommend our RAINBOW brand.

Rainbow Belt is a friction surface belt, very flexible, and one which will increase efficiency by lack of slippage.

Rainbow Belt is constructed of a duck that permits of thorough impregnation of the rubber binder that holds the plies together. This binder is strong, and yet elastic enough to permit the belt to adjust itself to the arc of the pulleys without ply separation.

Exact widths and plies can be determined by the fundamental rules found in a succeeding book.





## PILOT BELT

**T**HE wood-working plant of a shipyard contains machines which receive their power at a high speed and consequently over small pulleys. Small pulleys, high-crowned pulleys, quarter turns, crossed drives, and other unusual conditions which are always found around planers, molders, edgers, trimmers, etc., make a light weight duck belt the most efficient. It is obvious that the greater the number of plies in a given thickness the less action there is between adjoining plies.

Pilot Belt, our recommendation for this class of service, is constructed of light weight duck and a rubber binder that readily permits of such action between the plies (as described above) without causing the plies to separate. Where necessary, Pilot Belt can be furnished endless.

Exact widths and plies can be computed from the rules found in a succeeding book.

## DIAPHRAGMS

**T**HERE is a limited quantity of Pump Diaphragms used for various classes of service in ship-building yards.

We manufacture a complete line of Loud, Edson, Gould and Demming Diaphragms, all of which are fur-



## S H I P - B U I L D I N G

nished of a compound which will not readily break at the flexing point, which is obviously the weak point of any diaphragm.



The strength of the duck and the nature of the rubber compound are such as to enable our diaphragms to withstand the dirt, grit, and sand encountered by them in general pumping service.

We fully understand the requirements of a diaphragm and are prepared to manufacture an article to meet the conditions of service after inspection of those conditions.

## VALVES

**T**HE satisfactory working of a pump depends largely on the adaptability of the valves employed for the service. On account of the greatly varying conditions, this subject often appears to be very complicated.

There are a great many factors entering into the life of pump valves which should be carefully taken into consideration before recommending a valve for any specific class of duty. Satisfactory service is attributable to the proper understanding of the conditions the valves are called upon to meet. We can herewith make recom-





mendations only for those conditions which are general. The specific conditions must be considered as individual cases.

The factors entering into the life of Pump Valves are as follows:

Discharge pressure { pounds per square inch,  
Suction lift in feet. { or vertical lift or head in feet.

Kind of guard—straight or curved.

Type of valve seat.

Percentage of seating area.

Kind of water, clear or gritty, oil or other liquid.

Nature of water, fresh or acidulous.

Temperature of liquid pumped.

For pumping cold water, maximum temperature 170 degrees, and maximum pressure of 125 pounds, we recommend a gray valve, known as our No. 308.

For pumping cold, gritty water, maximum temperature 150 degrees and maximum pressure of 100 pounds, we recommend a gray valve, known as our No. 278.

For hot water, boiler-feed service, average temperature 210 degrees, maximum pressure 150 pounds, we recommend a black valve, known as our No. 28.

For condenser service, where a soft elastic valve is required, we recommend a red valve, known as our No. 58.

For a light condenser and air-pump service valve we recommend our No. 128 valve, which we have found particularly adaptable for marine condensers.

We always appreciate the opportunity to make a



## S H I P - B U I L D I N G

study of each specific class of pump-valve service and to make our recommendations accordingly.

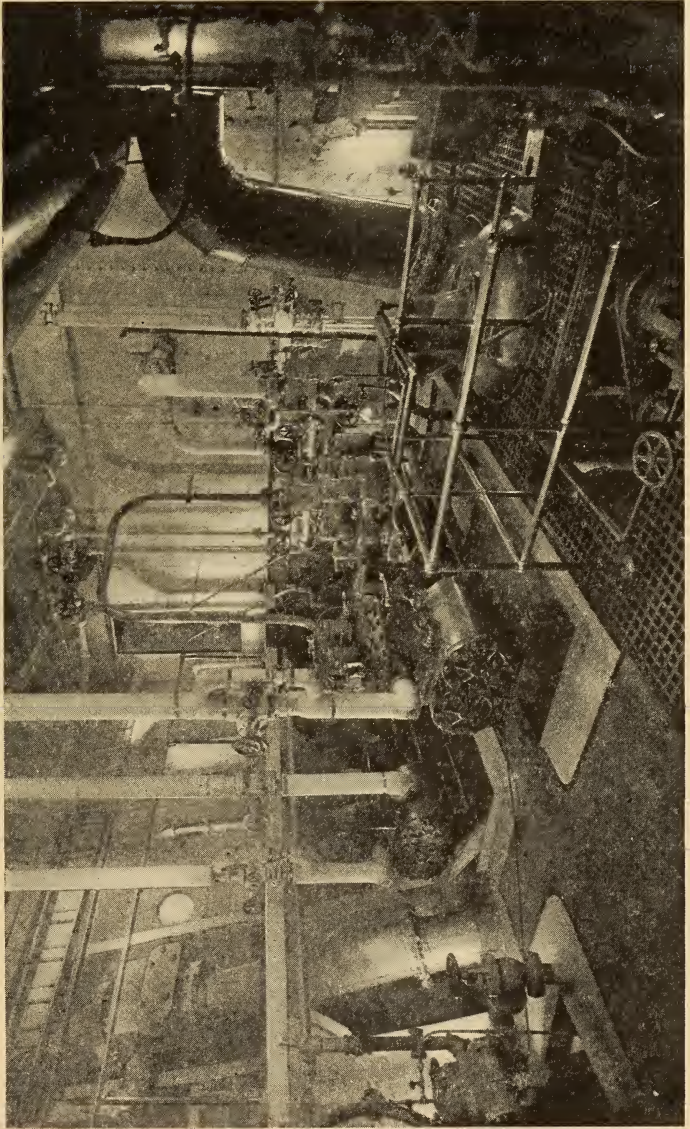
### PACKING

**M**ODERN engineering and power-plant construction have introduced specific and economic conditions requiring special installations; and to meet such, we originated and manufacture a very large and diversified line of packings and gaskets to meet all requirements.

The general principle involved in designing packing is to prevent leakage where two surfaces come together, at the joint of which there is pressure of steam, air, ammonia, water or other fluid.

There are two general conditions: First, the joint between two immovable surfaces, such as the joint between the flanged ends of two pipes or the joint between the valve-chest cover and the valve chest. This condition calls for the use of gaskets or sheet packing. Second, the joint between one stationary and one movable surface or the joint between two movable surfaces, as is readily illustrated by a piston rod or valve stem of an engine, or the plunger of a pump. This condition calls for the use of rod or ring packing.

As a result of these two conditions, packing can generally be divided into two distinct classifications—sheet-packing, and rod-packing.





## SHEET PACKING

THE application of sheet-packing and its success depends largely upon a thorough analysis of the conditions under which the packing must perform, together with the application of the proper packing which will perform the service required.

For example, in joints under normal conditions, sheet-packing 1/16-inch thick gives excellent results. Where the alignment is faulty, or the flange is corrugated or rough, a thicker packing gives best results.

In the case of ungraphited packing, and where it is necessary to occasionally break a joint, it is well to smear the surface of a gasket with a paste made of graphite and water. This enables the engineer to break a joint of any kind without destroying the gasket.

After the joint is properly packed, steam should be admitted to the pipe slowly, in order to warm up the packing gradually. Sudden application of pressure, which may be air-pressure in advance of the steam, often blows out the gasket.

After a light pressure of steam has been turned on long enough to thoroughly warm the joint, it should be shut off and all bolts and nuts holding the flange tightened up to press the flanges more firmly into the gasket.



<i>Style No.</i>	<i>Form</i>
9	PLAIN
19	WIRE INSERTED

## RAINBOW SHEET PACKING

**F**OR those stationary joints where a packing is required to withstand a maximum pressure of 150 pounds saturated steam, or for any hydraulic pressure, we recommend Rainbow Sheet Packing.

This packing is particularly adaptable to vibrating joints incidental to marine service.

The reputation of Rainbow Packing is so universal that every user of sheet packing is familiar with it to the extent of making any further description superfluous.

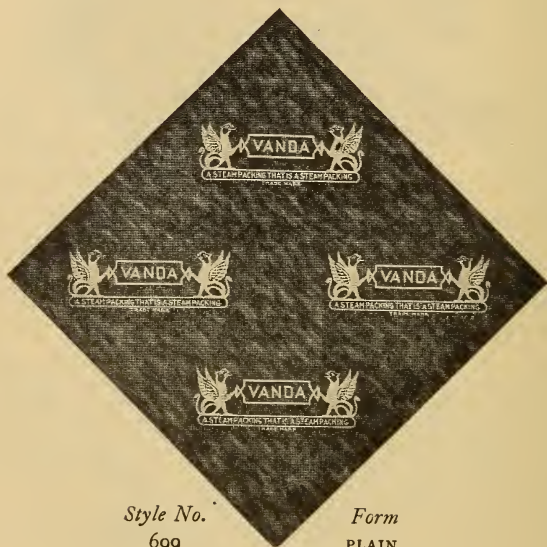
Rainbow Sheet Packing is the original Red sheet, and is only genuine with the following Trade Mark.





## SHIP - BUILDING

Rainbow is furnished both plain and wire-inserted and is manufactured in rolls 36 inches wide, weighing approximately 100 and 200 pounds. Manufactured in all standard thicknesses.



*Style No.*  
699

*Form*  
PLAIN

## VANDA SHEET PACKING

**T**HE most successful sheet-packing is one which will stand a high temperature and cannot be forced out at the joint by high pressure, and will resist disintegration caused by heat, oil, acid or alkali. Vanda



Sheet packing has successfully performed all of these requisites.

Vanda Sheet-Packing is essentially a product of the proper combination of asbestos and rubber, with a lubricating composition that preserves it from drying out and makes it unaffected by condensation.

The compressed combination of these two products is manufactured in such a way as to make the packing gas-tight and incapable of water-absorption.

Vanda Sheet-Packing will not soften, burn, blow or ooze out of a joint. The compound being water, acid and alkali-proof, will resist any action on the finished sheet.

We particularly recommend Vanda Sheet-Packing for high pressure steam-pipe flange connections, steam cylinder heads, internal combustion engines, and places where a packing meets with acid, alkali, ammonia, petroleum, etc. It is made in 1/64-inch, 1/32-inch, 1/16-inch, 3/32-inch and 1/8-inch thicknesses, and sheets 54-inches by 54-inches.

## ROD OR RING PACKING

**T**HE general principle involved in designing rod or ring-packing is to prevent leakage of steam, water, etc., upon rods, subject to rotary, lateral, or reciprocating motion.

This must be done with as little friction as possible,



## S H I P - B U I L D I N G

while at the same time the packing should not be designed to act as a guide for the rod or stem which it surrounds. On the contrary, it should be designed so that it will be sufficiently flexible to follow the lateral or rotary movement of the rod without allowing any leakage.



<i>Style No.</i>	<i>Form</i>
101	SPIRAL
102	RING
103	COIL

### RAIN-BESTO HIGH PRESSURE PACKING

**W**HERE a piston packing must work under high pressure steam or super-heated steam, we recommend Rain-besto High Pressure Packing.

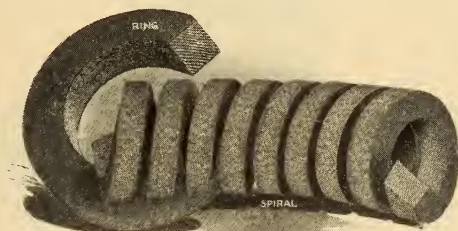
This packing is made with a center block of woven asbestos cloth, to which is attached a heat-resisting rubber cushion. Around this is wound two layers of closely woven asbestos cloth, which are held together by a heat-resisting compound. The finished product is lubricated and graphited.





We recommend Rain-besto High Pressure Packing for all high pressure and super-heat steam on rods, and on valve stems of all types of engines, air compressors, steam turbines and pumps.

It is manufactured  $\frac{1}{4}$ -inch to  $1\frac{1}{4}$ -inch, inclusive, and in spiral form. It is packed 12 feet to a box.



<i>Style No.</i>	<i>Form</i>
231	SPIRAL
232	RING
233	COIL

## PEERLESS CROSS EXPANSION PACKING

**W**HERE steam conditions require a low-pressure piston packing, or for piston rods and valve stems on steam, ammonia, hot and cold water service, we recommend Peerless Cross Expansion Packing. It is not recommended for superheat steam.

Peerless Cross Expansion Packing is made of especially closely-woven duck, with a high-grade rubber friction or binder, which holds the duck together. The duck is laid diagonally instead of at right angles.



## SHIP - BUILDING

The Packing is thoroughly graphited and lubricated and is made in all sizes from  $\frac{1}{4}$ -inch to  $1\frac{1}{4}$ -inch, inclusive.

Spiral form is packed 12 feet to the box.



*Style No.*

125

186

*Form*

BRAIDED ON SPOOL

TWISTED ON SPOOL

## WIZARD VALVE STEM PACKING

**F**OR packing globe and angle-valves, we recommend Wizard Valve Stem Packing.

Wizard Packing is made of a commercially pure asbestos yarn, the strands of which are thoroughly lubricated and graphited before braiding. We have a method of lubricating this material, during the course of manufacture, which insures its remaining soft while in the stuffing box.

Wizard Packing is made both braided and twisted, and in sizes from  $\frac{1}{8}$ -inch to  $1\frac{1}{4}$ -inch, inclusive.



<i>Style No.</i>	<i>Form</i>
681	SPIRAL
682	RING
683	COIL

## HONEST JOHN HYDRAULIC PACKING

**I**N marine yards where hydraulic conditions are experienced, we recommend Honest John Hydraulic Packing.

Honest John is a square braided flax packing, braided without corners. In the center is a red rubber core which gives the packing greater elasticity, so that it conforms to the rods out of line, or allows for expansion and contraction due to change of temperature.

Honest John Packing is treated with a waterproof compound that holds the fibre together and protects it from the disintegrating effects of water.

We recommend Honest John Packing for all hydraulic pressures, on all types of pumps, elevators and accumulators.

This packing is regularly made in sizes from  $\frac{1}{4}$ -inch to  $1\frac{1}{2}$ -inch, inclusive, and in spiral form. It is packed 12 feet to a box.



## SHIP - BUILDING



<i>Style No.</i>	<i>Form</i>
463	COIL
4463	RING

### PEERLESS SPECIAL CANVAS PUMP PACKING

**W**HERE packing is required for inside packed pumps handling hot or cold water, we recommend Peerless Special Canvas Pump Packing.

This packing is made of a very fine and closely-woven duck, which is frictioned or held together with a white rubber compound.

To meet the different service requirements it is made either rock hard or medium hard. The rock hard style is especially adaptable for hot-water service on inside packed pumps. The medium hard style is recommended for cold-water service in the same type of pump.

This packing is furnished in either coil or ring form and in sizes  $\frac{1}{4}$ -inch square to  $1\frac{1}{4}$ -inch square, inclusive.



<i>Style No.</i>	<i>Form</i>
592	RING
593	COIL
594	REEL

## PEERLESS BRAIDED FLAX PACKING

**F**OR packing outside packed plunger pumps, hydraulic presses, accumulators, etc., we recommend Peerless Braided Flax Packing.

Peerless Braided Flax Packing is carefully braided and lubricated and is usually packed in flat coils.

However, it is furnished in either coil or ring form, and in sizes from  $\frac{1}{4}$ -inch to  $1\frac{1}{4}$ -inch, inclusive.

## AFTERWORD

**W**E manufacture a complete line of Belting, Hose, Packing, Mats, Molded specialties and other mechanical rubber goods for every purpose. We welcome the opportunity to investigate the physical conditions of service expected from any product, and make our own recommendations accordingly.

UNITED STATES RUBBER COMPANY  
*Mechanical Goods Division*



## CONTENTS

	PAGE
FOREWORD . . . . .	3
BELTING . . . . .	19
Pilot . . . . .	21
Rainbow . . . . .	19
DIAPHRAGMS . . . . .	21
FLOORING	
Usco Sheet Rubber . . . . .	17
Rubber Matting . . . . .	17
HOSE	
Acetylene . . . . .	9
Air . . . . .	5
Connecting Pipe Line . . . . .	8
Fire . . . . .	11
Steam . . . . .	13
Suction . . . . .	14
Water . . . . .	15
PORT & HATCH RUBBER, PILOT . . . . .	16
PACKING . . . . .	24
Rainbow Sheet . . . . .	27
Vanda Compressed Sheet . . . . .	28
Hydraulic-Honest John . . . . .	33
Peerless Braided Flax . . . . .	35
Peerless Cross Expansion . . . . .	31
Peerless Special Canvas Pump . . . . .	34
Rain Besto High Pressure . . . . .	30
Wizard Valve Stem . . . . .	32
Rod or Ring . . . . .	29
VALVES . . . . .	22
AFTERWORD . . . . .	36









**COPYRIGHT 1919 BY  
UNITED STATES RUBBER COMPANY  
NEW YORK CITY  
U. S. A.**

**THE MILES PRESS, NEW YORK**

LIBRARY OF CONGRESS



0 018 373 650 4

