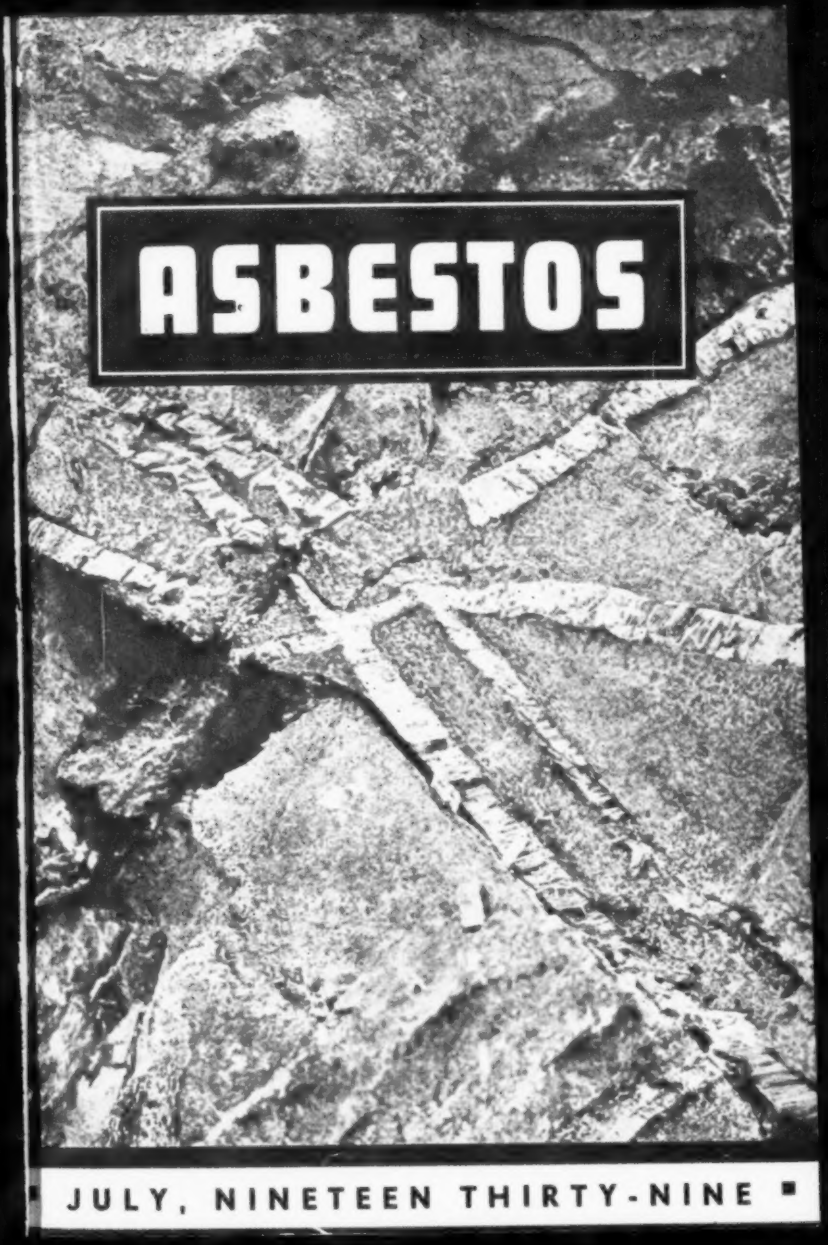




Published by AsbestosClaims.Law
**asbestosclaims.law/library/12285/1**

GARCO

# ASBESTOS TEXTILES

| | |
|---|---|
| YARN | 6 cut to 60 cut.<br>Plain - Sized - Waxed - Rubbed.<br>Metallic: Brass, copper, zinc, monel, nichrome or stainless steel wire insertion. |
| ROVING | Plain or reinforced. White or colored. |
| CORD | Twisted or braided. Sized or plain. |
| CLOTH | Plain - Twill - Herringbone.<br>Non-metallic. Asbestos-metallic.<br>.015″ to ¼″ thick.<br>8 oz. to 8 lbs. per sq. yd. |
| TAPE | Non-metallic. Asbestos-metallic.<br>¼″ to 8″ wide.<br>.015″ to ½″ thick. |
| TUBING | Braided - Woven - Plain - Sized. |
| WICK | WICKING - ROPE |
| RINGS | Split, endless, flat, dome, bevelled, tapered—for valves controlling air, oil, gas, water, steam, chemicals. |
| GASKETS | Boiler - Stove - Furnace - Plumbing. |
| PACKING | General line of asbestos, flax, duck. |

BRAKE LINING—Woven, Hydro-molded.

**GENERAL ASBESTOS & RUBBER DIVISION**

*of Raybestos-Manhattan, Inc.*

NORTH CHARLESTON, S. C.





Published by AsbestosClaims.Law

asbestosclaims.law/library/12285/2

# "ASBESTOS"

FOUNDED IN JULY 1919 AND PUBLISHED
CONTINUOUSLY SINCE THAT DATE

A. S. ROSSITER, *EDITOR*

PUBLISHED MONTHLY BY SECRETARIAL SERVICE
16th FLOOR INQUIRER BUILDING
PHILADELPHIA, PENNSYLVANIA

C. J. STOVER, *Proprietor*

*Entered As Second Class Matter November 23, 1923, at the Post Office at Philadelphia, Pennsylvania, Under Act of March 3, 1879*

Volume 21 JULY 1939 Number 1

## CONTENTS

| | Page |
|---|---|
| The Tannery | 2 |
| A. S. T. M. Standards in New Form | 6 |
| Standards | 8 |
| Heat Insulation Conference | 10 |
| Novel Application Method | 12 |
| Telesphore Roy, Veteran | 15 |
| Market Conditions | 16 |
| Current Range of Price | 18 |
| Contractors and Distributors Page Building | 20 |
| American Asbestos Company Anniversary | 22 |
| Welding Hose | 23 |
| Morton F. Judd | 25 |
| Roofing Cements and Caulking Compounds | 25 |
| Production Statistics | 28 |
| Imports and Exports | 29 |
| News of the Industry | 33 |
| Patents | 37 |
| Asbestos Stock Quotations | 38 |
| This and That | 39 |
| Conclusions | 40 |
| Famous Asbestos Collections | Insert |

SUBSCRIPTION PRICE

| | |
|---|---|
| U. S., CANADA AND MEXICO | $2.00 PER YEAR |
| FOREIGN COUNTRIES | 3.00 " " |
| SINGLE COPIES | .25 EACH |

*Copyright 1939, C. J. Stover*



*Asbestos Magazine, 1939, July 1939*
ACL Doc 12285 · Page 3 of 51
Published by AsbestosClaims.Law
asbestosclaims.law/library/12285/3

# THE TANNERY—

## Asbestos-Cement Products peculiarly fitted for use in tannery methods

*By Paul I. Smith* [1]

Altho asbestos-cement has been used in many important industries for some years now, it is only comparatively recently that this valuable material has found its way into the tannery.

In many ways asbestos-cement is particularly well fitted for this purpose as it is inexpensive, light, strong enough for all practical requirements, immune from the corrosive effects of exposure to steam or atmospheric conditions and able to withstand the attack of mild alkaline and acid solutions. Unlike most materials hitherto exclusively used in the tannery, asbestos-cement will not stain skins, and does not itself stain easily.

Asbestos-cement pits for soaking raw hides and skins on their arrival at the tannery from the abattoir or market are more economical and just as satisfactory in practice as those made of the best cement. Pits for this preliminary work in the tannery vary, of course, according to the type of goods to be processed, but they are generally six feet deep and have a base about four or five feet square. When sinking asbestos-cement pits, the base should be of good concrete, in which asbestos-cement or glazed pipes for emptying the pit are embedded. The sides composed of specially moulded asbestos-cement fluted sheets can be fixed in position and joined together with special quick drying and firm cement containing a low percentage of lime.

The obvious advantages attached to the use of asbestos-cement lined pits are: first of all economical and simple erection; secondly, general efficiency of working and easy cleaning of the smooth surfaced sides. Unlike wood, which is often used for pits, asbestos-cement matures and gains in strength after installation, whereas wood gradually soft-

[1] Mr. Smith resides in Stanmore, London and his article naturally concerns the Tannery Industry in England. The methods described may not conform with American practice.



*Asbestos Magazine, 1939, July 1939* Published by AsbestosClaims.Law
ACL Doc 12285 · Page 4 of 51 asbestosclaims.law/library/12285/4

ens and eventually begins to splinter. The tanner appreciates the use of a material easy to keep clean because it reduces the risk of putrefaction being carried too far. Animal skins are highly putrescible and during warm weather there is always a danger of valuable hide substance being dissolved by proteolyptic bacteria. The only possible way to control their action is by scrupulous cleanliness.

A number of materials, especially those with rough surfaces, absorb decaying organic matter charged with injurious micro-organisms and cannot easily be kept clean. Asbestos-cement offers no possible refuge for impurities and its smooth surface can be kept perfectly clean by simply spraying with water.

Moulded asbestos-cement tanks, for washing wool and hair are greatly superior to the ordinary galvanized types. These soon get very greasy and there is always a risk of the metal staining the best white wool. Asbestos-cement does not absorb grease and there is no difficulty about its removal from the surface. During regular use the metal tanks discolor rather badly, but those made of asbestos-cement remain practically the same year in and year out.

In the limeyard, fleshing department, bating and drenching shops, it is necessary to protect all metal water pipes with anti-corrosive paint to prevent corrosion. Even then rust soon forms. The tanner dislikes rust not only because its appearance is a clear indication that piping is being slowly destroyed and requires further and more adequate protection, but because rust is dangerous as it stains all skins with which it comes in contact. By substituting asbestos-cement pressure pipes for those made of metal there is at once a saving in maintenance costs, and a total elimination of rust stains. Asbestos-cement piping is quite unaffected by even years of exposure to water vapor either pure, or as is generally the case in the beamhouse containing traces of ammonia. It is not advisable to use asbestos-cement piping in the pickling or tanning shops where there is likely to be free acid in the atmosphere, altho, of course, a cement containing a relatively high precentage of blue asbestos is able to resist the corrosive effects of most mild acids.

Another and valuable use of asbestos-cement is for the



*Asbestos Magazine, 1939, July 1939* Published by AsbestosClaims.Law
ACL Doc 12285 · Page 5 of 51 asbestosclaims.law/library/12285/5

construction of troughs for glue-stock. In the ordinary way this accumulates in the tanner's yard, and in warm weather it soon discolors and may, in fact, go sour. The troughs of asbestos-cement need only be light and simple in design, but they should be kept clean and protected from ordinary filth. It is worth pointing out that glue manufacturers pay better prices for fresh, well preserved stock than for material which has obviously been neglected.

For all finishing tables, also for sloping tables to be used for hand striking-out, the new vulcanized rubber covered asbestos-cement is very suitable. It is sufficiently resilient for the purpose, and yet stronger and firmer than ordinary rubber. There are several other possible uses for this new rigid rubber, apart of course from tiling, and it only requires a little imagination for the manufacturer to adapt his material to suit the tanner.

It is rather surprising that asbestos-cement roofing is not more widely used in the tannery. The old fashioned and thoroly unsuitable galvanized roofing for drying sheds is, surprisingly enough, still being installed, in spite of most obvious drawbacks. One of the worst troubles brought about by the use of this type of cheap roofing is condensation. The condensed water vapor unfortunately contains traces of iron which it picks up from the roof and this, of course, leaves a bluish-black mark on all vegetable tanned goods. By using asbestos-cement roofing, which never requires any maintenance, condensation is considerably reduced, and even when it does occur there is not the slightest danger of stains due to metallic contamination. The insulating properties of asbestos-cement are also worth considering as this means easier and more economical control of temperature.

Where natural drying is carried out in large sheds, ventilation is controlled by means of louvres which are generally made of thin wood. Experiments with similar ones made of asbestos-cement tend to show that they not only last a good deal longer, but are able to exercise a better control over the temperature of the sheds because of their insulating ability. During cold or very damp weather the tanner must close his louvres to prevent the dry leather from absorbing moisture and so becoming damp again. If the louvres are made of wood, then it is quite impossible



*Asbestos Magazine, 1939, July 1939*
ACL Doc 12285 · Page 6 of 51
Published by AsbestosClaims.Law
asbestosclaims.law/library/12285/6

# Carey HEAT INSULATIONS



Careycel—For temperatures up to 300° F.

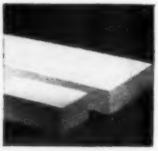
## ASBESTOS · MAGNESIA

The CAREY Line includes high efficiency insulating materials of Asbestos and Magnesia for every known service condition—for temperatures ranging from

**SUB-ZERO to 2500° F.**



85% Magnesia—For High & Med. Pressure.



Hi-Temp Blocks—For Furnaces, Ovens, Kilns, etc.

In addition to the insulations shown, Carey makes other Asbestos Specialties — as Plastic and dry Refractory Cements, Asbestos Paper, Asbestos Millboard, Asbestos Packings, Asbestos Cements, Flat and Corrugated Sheathing, Careystone Asbestos-Cement Shingles and Siding, Asbestos Fibre.

Wholesalers and Applicators of Insulation Materials—write for details and prices.

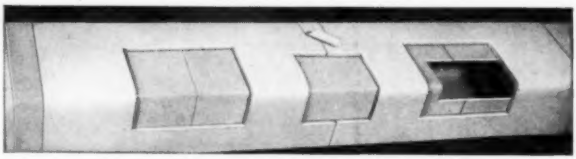


Combination Hi-Temp—85% Magnesia.



Hair Felt Insulation
For sub-zero.

**CAREYDUCT—**
the all-asbestos duct for conveying conditioned air. Combines duct and insulation. Fireproof, sound-deadening, permanent, economical, easily erected.



Cut-out view of CAREYDUCT—assembled sections showing staggered joint construction and taped outer jacket. Smooth appearance.

**THE PHILIP CAREY COMPANY · Lockland, Cincinnati, Ohio**
*Dependable Products Since 1873*
BRANCHES IN PRINCIPAL CITIES




*Asbestos Magazine, 1939, July 1939*
ACL Doc 12285 · Page 7 of 51
Published by AsbestosClaims.Law
asbestosclaims.law/library/12285/7

to shut out the moist air, but asbestos-cement is able to act as an effective barrier.

## A.S.T.M. STANDARDS IN NEW FORM

A new method of publishing A.S.T.M. Standards and Tentative Standards, effective November 1939, has been announced by the American Society for Testing Materials.

Henceforth all standards and tentative standards will be issued in one triennial publication, divided into three parts:

**Part I, Metals;**

**Part II, Non-metallic Materials — Constructional (in which standards on thermal insulating materials will be included);**

**Part III, Non-Metallic Materials — General (in which standards on Asbestos Yarn, Cloth, Electrical Tape will be included).**

Publication of new and revised tentative standards in the annual Proceedings, Part I, will be discontinued. The Proceedings, including both committee reports and papers will be bound in one volume.

Publication of the annual "Book of Tentative Standards" will be discontinued entirely.

All books will be bound in cloth.

In the two years between triennial publication of the new Book, supplements to each of the three parts will be issued, containing revisions and new or revised standards and tentative standards for that year.

Further information as to prices of the various books, supplements, etc., can be obtained from the Headquarters of the Society, at 260 S. Broad St., Philadelphia.

**RAW ASBESTOS**

**N. V. NEDERLANDSCHE ASBEST MY**

**P. O. BOX 803**

**ROTTERDAM (Holland)**

*Stock at Hamburg, Rotterdam*



*Asbestos Magazine, 1939, July 1939* Published by AsbestosClaims.Law
ACL Doc 12285 · Page 8 of 51 asbestosclaims.law/library/12285/8

AFD

# ASBESTOS FIBRE DISTRIBUTORS

***Supplying all grades of Canadian and Arizona Chrysotile —also other varieties of asbestos***

Prompt shipments of every grade of fibre—ready for manufacturing the following products.

| | | |
|---|---|---|
| Textiles | Roving & Yarn | Roofing |
| Insulation | Paper & Felt | Siding |
| Packings | Brake Lining | Flooring |
| Shingles | Wall Board | Fillers |
| Millboard | Moulded Products | Cements |

All fibre represents the highest value in its class and the utmost uniformity in grading and volume.

For samples, prices and further information, address:

**ASBESTOS FIBRE DISTRIBUTORS**
Division of Johns-Manville Sales Corp.
**22 EAST 40th STREET**
**NEW YORK CITY**



*Asbestos Magazine, 1939, July 1939*
ACL Doc 12285 · Page 9 of 51
Published by AsbestosClaims.Law
asbestosclaims.law/library/12285/9

# STANDARDS--

*Contributed*

The June issue of "Industrial Standardization" has just arrived. This commendable journal is published monthly by, and records the activities and accomplishments of, the American Standards Association.[1]

One of the chief missions in life of the ASA is to aid progressive industry in establishing, for itself, standards to which its products can be made and by which they may be judged. There can be no doubt that the establishment and use of standards by industry, aided and abetted by the ASA, has contributed as much as any other one thing to the unbelievably rapid advance of our industry and, with it, of the standard of living of every American.

The fact that a nut made by one manufacturer will properly fit a bolt made by another manufacturer a thousand miles away may not seem of any particular importance to the man in the street, but the value to our economy of that one item could be expressed only in astronomical figures.

But what can be the value of standardization to a manufacturer or erector of products in which precision of the nut and bolt order is not required? Is there any value beyond the obvious economy of making products in such sizes and shapes as to minimize the amount of factory equipment necessary to meet the demands of the consumer?

We believe there is. One of the most acute problems of progressive, honest industry today is that of protection against the inroads of low priced goods of *inferior quality*. It seems fairly well established that efforts to meet such competition thru the route of price concessions are futile. It does, however, seem possible that a program of intelligent standardization of product and a campaign to educate the consumer to accept, nay demand, compliance with those standards in the products he purchases would carry us a long way toward the desired goal.

The honest manufacturer, making an honest product to

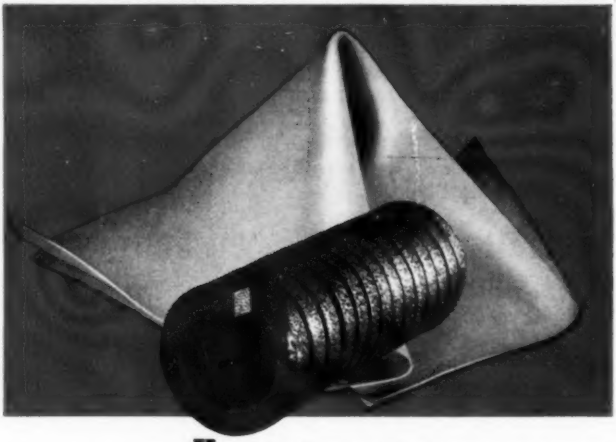
[1] 29 W. 39th St., New York City.



*Asbestos Magazine, 1939, July 1939* Published by AsbestosClaims.Law
ACL Doc 12285 · Page 10 of 51 asbestosclaims.law/library/12285/10

# PACKINGS

## SUPERIOR QUALITY FOR EVERY NEED



Keasbey & Mattison Packings are engineered for every type of service—steam, oil, water, acid, and gas. One of the outstanding products in the line is K & M 236 Packing for hot oil superheat, which presents the utmost resistance to the solvent action of hot petroleum fractions.

There are a few territories open for desirable Distributors. Why not get in touch with us today?

K&M best in asbestos

**KEASBEY & MATTISON COMPANY**

AMBLER • PENNSYLVANIA

See K & M's Fiery Snowman and Exhibit in the Home Building Center at the New York World's Fair



*Asbestos Magazine, 1939, July 1939*
ACL Doc 12285 · Page 11 of 51
Published by AsbestosClaims.Law
asbestosclaims.law/library/12285/11

sell at an honest price, has nothing to lose and everything to gain thru educating consumers to demand that products comply with certain minimum standards of quality. It is only the fly-by-night operator who need fear the establishment of standards and the insistence of consumers on adherence to those standards.

The June issue of "Industrial Standardization" is entiled "Executive Edition" and it will be well worth the while of any Executive to obtain a copy, if only to become acquainted with the many ways in which the use of standards is saving and making money for industry and the population at large. We heartily commend it to you, with the feeling that in the broad field of standardization may be found the answers to many of industry's present problems.

## HEAT INSULATION CONFERENCE

The Joint Committee on Materials and their Testing (London) is organizing a conference on the properties and testing of heat insulating materials, to be held in London on November 23rd, 1939, in conjunction with the fall meeting of the Institution of Gas Engineers.

The discussion will be divided into three sections, namely, high temperature insulating materials, low temperature insulating materials, and the insulation of buildings and miscellaneous applications. It is intended that the papers to be read shall review the present position of research and current opinion, not only in the United Kingdom, but in the United States and Continental Europe. A large attendance is expected.

---

Let us mention your newest and most uptodate catalogs and advertising pamphlets in "ASBESTOS", sending copies so that adequate description can be made.

---

Common sense is the knack of seeing things as they are and doing things as they should be.



*Asbestos Magazine, 1939, July 1939*
ACL Doc 12285 · Page 12 of 51
Published by AsbestosClaims.Law
asbestosclaims.law/library/12285/12

# ASBESTOS

*Arizona Crude*
*Canadian Crude*
*Canadian Spinning Fibre*
*Canadian Shingle Fibre*
*Cyprus Asbestos*
*Italian Crude*
*Russian Crude*
*Rhodesian Crude*
*South African Blue Crude*
*South African Yellow Crude*

ASBESTOS LIMITED INC.

**8 West 40th Street : New York City**

**Works: MILLINGTON, N. J.**




*Asbestos Magazine, 1939, July 1939*
ACL Doc 12285 · Page 13 of 51
Published by AsbestosClaims.Law
asbestosclaims.law/library/12285/13

# NOVEL APPLICATION METHOD

## Utilizes Asbestos-Cement Sheets in Unique Insulation Job

Oil Companies have found many and varied uses for asbestos products, especially for insulating storage tanks where it is desirable to keep the temperature of the contents at a more or less constant level.

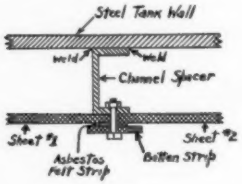



Fig. 1

Recently the Ohio Asbestos & Insulation Company of Cleveland, used asbestos-cement sheets, loose fill insulation and Magnesia Block to insulate two asphalt tanks for the National Refining Company at Findlay, Ohio.

The two tanks used 4,200 square feet of Magnesia Blocks, 12,800 square feet of Asbestos-Cement wallboard; 1,600 linear feet of asbestos-cement batten strips, 1,600 linear feet of asbestos felt strips 2½" wide, and 15 tons of loose-fill insulation. Interesting enough from a quantity standpoint, but even more so when the story of the application is told, and insulation contractors who read "ASBESTOS" will probably find the story helpful.

The sides of the tanks were first stripped with 4" channel, spot welded on 4 ft. centers; then 3/16" asbestos-cement flat sheets were applied to this channel. (See Fig. 1). The vertical ends of adjoining sheets were butted, this joint being covered with a 2½" wide strip of asbestos saturated felt, over which was bolted a 3" wide asbestos cement batten strip, the bolts extending thru the channel as shown.

Vertical support of the sheets was obtained by the use of a simple steel clip

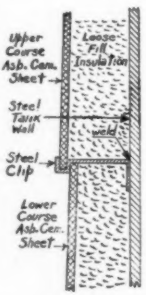



Fig. 2



Asbestos Magazine, 1939, July 1939
ACL Doc 12285 · Page 14 of 51
Published by AsbestosClaims.Law
asbestosclaims.law/library/12285/14

**Rhodesian**

**Transvaal**

**Canadian**
(BELL MINE)

**ASBESTOS**

DISTRIBUTORS

FRANCE and BELGIUM
GEORGES PARLY
10. Rue De La Pepiniere
Paris

GERMANY and MIDDLE EUROPE
BECKER and HAAG
Bernburgerstr 31
Berlin

JAPAN
C. H. NELSON
P. O. Box 1033, Kobe

**Raw Asbestos Distributors Limited**

BUSH HOUSE, ALDWYCH,
LONDON, W. C. 2 ENGLAND
CABLES:—VULBESTON, LONDON




*Asbestos Magazine, 1939, July 1939*
ACL Doc 12285 · Page 15 of 51
Published by AsbestosClaims.Law
asbestosclaims.law/library/12285/15

as shown in Fig. 2. The clip was of one inch wide steel and was arc-welded to the tank and extended outward over the top of the lower course of sheets where it was bent down about 4 inches. When the upper course of sheets was applied this clip was bent up, forming a hook or rest for the upper sheet, and holding it back firmly against the lower sheet. A lap of 3 inches between courses was thus provided. The battens shown in Fig. 1 were also lapped 3 inches.

As each course was completed the space formed between tank wall and sheets was filled with loose-fill insulation. Strips of Safe-N-Dry paper were then cemented

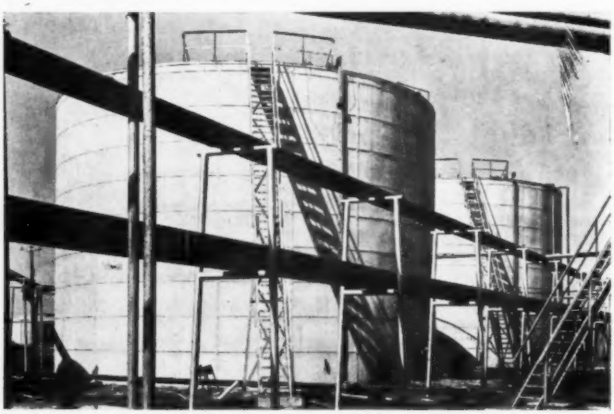


Photo by Art. Miller Studios, Cleveland

*Showing Asbestos-Cement sheets as applied on the two asphalt tanks of the National Refining Company at Findlay, Ohio.*

to the tank wall and extended outward to cover the insulation, thus affording moisture protection during erection and also support for the succeeding course of insulation. It is felt that this will give added protection against possible settling of the loose-fill since it limits the self-supported height of this material to about 4 feet.

The top of the tank was insulated with 2" thick Mag-



*Asbestos Magazine, 1939, July 1939* Published by AsbestosClaims.Law
ACL Doc 12285 · Page 16 of 51 asbestosclaims.law/library/12285/16

nesia Block, set in fibrous (asbestos) adhesive and covered with ½ inch Ruberoid Rigid Roof Insulation laid in hot asphalt. For waterproofing, a three ply layer of 20 lb. asbestos felt was then applied.

All materials used on this job were furnished by The Ruberoid Company to whom we are indebted for the information and photograph.

## TELESPHORE ROY--

### Asbestos Veteran Retires

Telesphore Roy, for many years Superintendent of Asbestos Corporation's Vimy Ridge Mine at Coleraine, Province of Quebec, has recently retired after 51 years of continuous service with Asbestos Corporation Limited and its predecessor companies.

Mr. Roy first entered the Asbestos Mining Industry with King Brothers in 1888. He was one of the original prospectors on the site of the Vimy Ridge Mine and was the discoverer of the outcrop where the present pit is located. He has been stationed there for the past 20 years, from the day the mine was first opened in 1919.

Mr Roy is one of the veterans of the Asbestos Mining Industry and his long and faithful service has earned for him a lengthy period of comfort and leisure.

---

To cope uncomplainingly with life as it is and not show discouragement, and to make everyone better who comes within our sphere, is the supreme test of character and the final proof of a real leader.

**ASBESTOS**
**ORES - MINERALS**
Import · Transit · Export
"Tropag" Asbest & Erzimport
Oscar H. Ritter — K.G.
Hamburg · — · Alsterdamm 7



*Asbestos Magazine, 1939, July 1939* Published by AsbestosClaims.Law
ACL Doc 12285 · Page 17 of 51 asbestosclaims.law/library/12285/17

# MARKET CONDITIONS

## GENERAL BUSINESS

General business shows improvement due, generally speaking, to the fact that many of the depressing factors have been removed;—orders in many industries have increased (see page 39, General Electric, as one instance); coal strike has ended bringing not only an increase in coal production but more business in other lines where the question of adequate coal supplies caused some alarm; war threat has lessened; the weather has improved.

There are other encouraging features, and there is also a full share of discouraging ones, so that no one likes to predict the trend for more than a few weeks at a time. And of course anything may happen—in foreign countries, U. S. Government moves, or the basic industries, which may upset calculations at any time.

## RAW ASBESTOS

"The situation is unchanged" says our informant. "Imports into the U.S.A. show a decided upward trend over last year. Prices firm."

## ASBESTOS — MANUFACTURED GOODS

*Textiles.* Volume has fallen off somewhat in this market; prices are fairly well stabilized at the levels established in recent months.

*Paper and Millboard.* Demand in these commodities is light. Prices remain firm.

*Insulation. High Pressure.* Volume in this line, contrary to the usual seasonal decline, showed considerable improvement during the past month. It remains to be seen whether this improvement can be maintained during the remainder of the usually dull months but, needless to say, everyone is hopeful that such will be the case. Prices remain firm.

*Insulation. Low Pressure.* Demand continues light, due mostly to the season. Prices for the most part are fair.

*Asbestos-Cement Products.* These materials are enjoying their usual increase in volume at this season of the year, with shingle sales running at approximately the same



*Asbestos Magazine, 1939, July 1939*
ACL Doc 12285 · Page 18 of 51
Published by AsbestosClaims.Law
asbestosclaims.law/library/12285/18

# ASBESTOS

## ASBESTOS CORPORATION LIMITED

### THETFORD MINES

QUEBEC CANADA

**REPRESENTATIVES:**

BELGIUM & FRANCE: ..... GEORGES PARLY, 10 Rue de la Pepiniere, Paris.

GERMANY & CENTRAL EUROPE: ..... BECKER & HAAG, Bernburgerstr, 31, Berlin, S. W. 11

GREAT BRITAIN: ..... W. A. JANITCH. 68 Victoria St., London, S. W. I.

JAPAN: ..... ASANO BUSSAN Co., Tokyo-Kaijo Bldg., Tokyo. MITSUI BUSSAN KAISHA LTD., Tokyo.

**U. S. A.:**

BALTIMORE, MD.: ..... WALLACE & GALE CO., 115 South Gay St.

BOSTON, MASS.: ..... E. STANLEY FREEMAN COMPANY 195-205 A St., So. Boston.

CLEVELAND, OHIO: ..... WORLD'S PRODUCTS TRADING CO., Rockefeller Bldg.

CHICAGO, ILL.: ..... A. E. STARKIE CO., 1645 South Kilbourn Ave.

NEW YORK, N. Y.: ..... WHITTAKER, CLARK & DANIELS, INC. 260 West Broadway

SAN FRANCISCO, CAL.: ..... L. H. BUTCHER CO., 15th and Vermont Sts.

**CANADA:**

MONTREAL, QUE. ..... ATLAS ASBESTOS CO., LTD., 110 McGill St.

TORONTO, ONT.: ..... CANADIAN ASBESTOS ONTARIO LTD. 14 Front St.




*Asbestos Magazine, 1939, July 1939*
ACL Doc 12285 · Page 19 of 51
Published by AsbestosClaims.Law
asbestosclaims.law/library/12285/19

volume this year as last year for the first six months. The encouraging sign, however, is that there has been more of a pick-up in sales during the past couple of months than was evident during the early part of the year, so that indications for running ahead of last year during the fall season, are favorable.

Government purchases continue to take substantial volumes of asbestos shingles.

As to the industrial types of asbestos-cement products, meaning corrugated and flat sheets, there is a fair demand, and also a steady demand for the various types of asbestos-cement wallboards and tiles.

Another executive interested in this line tells us that the season was a little late in getting started but that the upturn has been rather more than the usual seasonal one, and this man also expects a continued upward trend thruout the summer and early fall.

A third correspondent reports that his company has received a far greater number of inquiries on Corrugated Asbestos in the last two weeks of June than in any combined four or six weeks since the first of January and, what is even more important, an increase in orders has also been noted; in fact this reader tells us that the outlook in this commodity at present is far more encouraging than it has been any time this year.

**These opinions and comments are offered for what they are worth by various men in close touch with field conditions in the various lines. Such comments are always welcome.**

# CURRENT RANGE OF PRICE

## on Canadian Crudes and Fibres

| | Per Ton (2000 lbs.) f.o.b. Mine |
|---|---|
| **Group No. 1 (Crude No. 1)** | **$700.00 to $750.00** |
| **Group No. 2 (Crude No. 2; Crude Run-of-Mine and Sundry[1])** | **150.00 to 350.00** |
| **Group No. 3 (Spinning or Textile Fibre)** | **110.00 to 200.00** |
| **Group No. 4 (Shingle Fibre)** | **57.00 to 78.50** |
| **Group No. 5 (Paper Fibre)** | **40.00 to 45.00** |
| **Group No. 6 (Waste, Stucco or Plaster)** | **30.00** |
| **Group No. 7 (Refuse or Shorts)** | **12.00 to 25.00** |

[1] Crude Run-of-Mine refers to a crude asbestos produced in certain mines where Crude Fibre is not graded into regular No. 1 and No. 2 Crude. Crudes Sundry refers to certain odd lots of off grade material which do not conform to the regular standards of No. 1 Crude or No. 2 Crude.



*Asbestos Magazine, 1939, July 1939* Published by AsbestosClaims.Law
ACL Doc 12285 · Page 20 of 51 asbestosclaims.law/library/12285/20

# JOHNSON'S COMPANY

ESTABLISHED IN 1875

*Head Office*

Thetford Mines, P. Q., Canada

*Mines*

Thetford Mines, Quebec

Black Lake, Quebec

Producers of All Grades of

RAW ASBESTOS

AGENTS

| FRANCE and BELGIUM | GERMANY and CENTRAL EUROPE | GREAT BRITAIN | JAPAN |
|---|---|---|---|
| E. R. FLINT, Esq., 72 Avenue de Suffren (Paris, XV°) France | TROPAG Asbest-und Erzimport Alsterdam 7 Hamburg 1 | A. A. BRAZIER & CO. Bluefriles House 122 Minories London E.C.3, England | S. SAITO & CO. 5th Floor Marunouchi Bldg. Tokyo |





Published by AsbestosClaims.Law
asbestosclaims.law/library/12285/21

# CONTRACTORS AND DISTRIBUTORS PAGE

## Building

New construction and engineering work undertaken during May attained the highest level for any May since 1930. Total contracts for May, 1939 amounted to $308,487,000 for the 37 Eastern States, according to F. W. Dodge Corporation. This total represents a gain of 9 percent over May of last year, but shows a decline of 7 per cent from April of this year.

The most significant development in the May contract record occurred in private construction which has shown marked increases since the beginning of this year. Mr. Holden stated that privately-owned construction for May totaled $173,730,000, which was 25 per cent ahead of last year and 2 per cent above April, 1939 figure. For the first five months of this year, this class of construction is 36 per cent ahead of the same period last year. With the final passage of the amendments to the National Housing Act, the confusion and uncertainty existing this Spring should now permit private construction to proceed at a pace well ahead of last year.

Further evidence of the generally firm tone to the private construction record during the past few months appears in the increasing proportion which this class has contributed to the total construction record. In January, for example, private work represented only 41 per cent of total construction; in February the proportion rose to 50 per cent; while for May, private work contributed 56 per cent of all construction. For May of last year only 49 per cent of all construction represented private work.

May contracts for total building, comprising residential and non-residential work, amounted to $210,567,000 as compared with $209,061,000 for April and $160,924,000 for May of last year. Contemplated projects for all classes of construction totaled $414,486,000 for May

---

Our August number will contain a tabulation of wage rates for Heat Insulators and Asbestos Workers (Pipe Coverers in other words) in the larger cities in the United States and Canada. The tabulation, which has been carefully compiled by the Builders Association of Chicago, is up-to-date and we plan to publish the rates each year hereafter.



*Asbestos Magazine, 1939, July 1939* Published by AsbestosClaims.Law
ACL Doc 12285 · Page 22 of 51 asbestosclaims.law/library/12285/22

# FAMOUS ASBESTOS COLLECTION

The collection of choice specimens of Raw Asbestos as illustrated in this issue of "ASBESTOS" is rather a unique one. These beautiful specimens come from many different countries scattered all over the globe, and it has taken over twenty years to gather this collection.

While asbestos in large quantities is mined in only a few countries, still asbestos deposits are to be found in almost every part of the world. The reason that many of these asbestos deposits are not worked is because of their inaccessibility to some economical means of transportation. Or the deposit is too small to warrant the expense of mining and milling.

The following are the countries from which these unusual specimens originate:

*Alaska, Australia, Bechuanaland, Bolivia, Canada, China, Corsica, Cyprus, Greece, Griqualand, India, Italy, Mexico, New Zealand, Rhodesia, Russia, Transvaal, Turkey, United States of America, Union of South Africa, and Venezuela.*

In mineral terminology the various types are referred to as follows:

*Chrysotile, Crocidolite, Actinolite, Amphibole, Anthophyllite, Tremolite, Amosite, Mountain Leather.*

The collection has been made by Asbestos Limited Inc., and is on display at their offices, 8 West 40th Street, New York City, where it can be seen by anyone interested in the subject of Asbestos.


Published by AsbestosClaims.Law
asbestosclaims.law/library/12285/23




Published by AsbestosClaims.Law
**asbestosclaims.law/library/12285/24**

Published by AsbestosClaims.Law
**asbestosclaims.law/library/12285/25**

FINEST COLLECTION OF ASBESTOS IN THE WORLD

OWNED BY ASBESTOS LIMITED INC., 8 WEST 40th STREET, NEW YORK, N. Y.

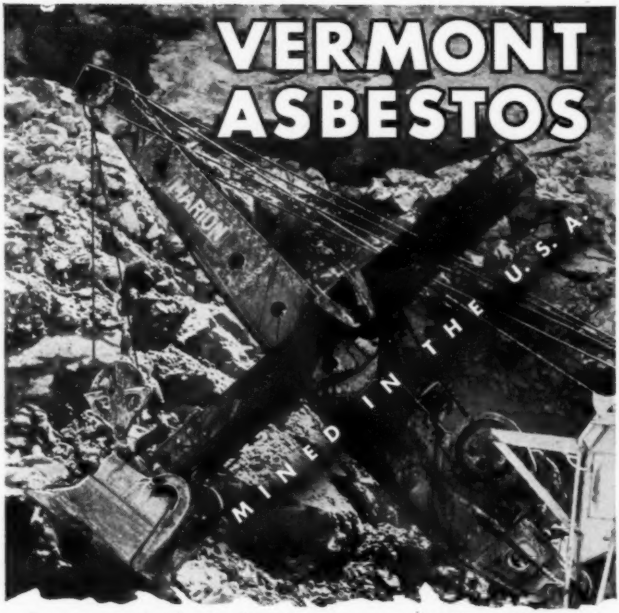

Published by AsbestosClaims.Law
**asbestosclaims.law/library/12285/26**

OWNED BY ASBESTOS LIMITED INC., 8 WEST 40th STREET, NEW YORK, N. Y.



Asbestos Magazine, 1939, July 1939
ACL Doc 12285 · Page 27 of 51
Published by AsbestosClaims.Law
asbestosclaims.law/library/12285/27

Published by AsbestosClaims.Law
**asbestosclaims.law/library/12285/28**




CLEAN, well fiberized asbestos particularly well suited for the manufacture of the better types of———

| | |
|---|---|
| BRAKE LINING | INSULATING CEMENT |
| CLUTCH FACING | MOULDED PLASTICS |
| ROOFING PAINTS | ASBESTOS PAPER |
| SHINGLES | PLASTIC-CEMENT MILLBOARD |

*Samples and Prices upon application*

**VERMONT ASBESTOS MINES**

Division of The RUBEROID Co.

**HYDE PARK, VERMONT**

SALES OFFICE, 500 FIFTH AVENUE, NEW YORK CITY • MINE, EDEN, VT.



*Asbestos Magazine, 1939, July 1939*
ACL Doc 12285 · Page 29 of 51
Published by AsbestosClaims.Law
asbestosclaims.law/library/12285/29

# AMERICAN ASBESTOS COMPANY--
## Celebrates its 30th Anniversary

Thirty years ago — On July 21st, 1909, three men, W. F. Jacoby, I. C. Weber and J. Gillmur Tyson, formed the American Asbestos Company, with office and factory in Norristown, Pa. Mr. Jacoby was made President, Mr. Weber, Treasurer, and Mr. Tyson, General Manager.

At that time Mr. Weber and Mr. Jacoby were interested in coal mining; Mr. Tyson had been in the employ of Keasbey & Mattison Company of Ambler.

The first lines manufactured were asbestos textiles and packings; later brake linings were added, the Company producing the Ambesco and TesTbesTos Brands.

In 1911 Mr. Jacoby withdrew from the Company; Mr. Weber left in 1916; Mr. Tyson continued to direct the company until 1937, when he withdrew from active participation and is now retired.



*J. G. Tyson, Jr.*

The plant has grown to four times its original size in the thirty years of its existence, and manufacturing equipment has likewise been increased, the company now making a full line of asbestos textiles—yarns, cords, tapes, tubings, cloths, wicking, theater curtains and special fine yarns, in addition to a full line of Brake Linings. Packings were discontinued in 1916 in favor of fine tapes and listings.

The present officers of the company are: J. G. Tyson, Jr., President; E. J. Tyson, First Vice President; W. F. Tyson, Second Vice President.

J. G. Tyson, Jr., the present President, entered the company in 1930 as Assistant Treasurer, after attending the Pennsylvania Military College at Chester, Pa. He has



*Asbestos Magazine, 1939, July 1939*
ACL Doc 12285 · Page 30 of 51
Published by AsbestosClaims.Law
asbestosclaims.law/library/12285/30

always been interested in the manufacture of the Company's products and upon retirement of his father in 1937 took over the active management of the Company's affairs.

"ASBESTOS" extends to the American Asbestos Company its congratulations and best wishes for continuing success during the next thirty and more years.

## WELDING HOSE

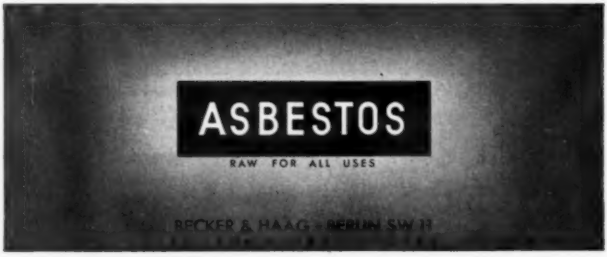
Asbestos products have been found very serviceable in various ways in welding practice.

Recently the Goodyear Tire & Rubber Company introduced a new hose, known as style H D safety welding hose, this combining fire-resisting compounds with fabric and asbestos insulation. It has been designed especially for welding operations in close quarters. The hose will resist the action of molten metal or accidental exposure to the torch flame long enough to permit the operator to reach a place of safety.

A number of uses have been found for asbestos products in welding operations. Asbestos Paper is used a great deal to protect other parts from the excessive heat or from sparks, and another use is the placing of asbestos paper or cloth over the welded parts after the operation is finished, to prevent them cooling off too quickly.

---

Trust men and they will be true to you; treat them greatly and they will show themselves great. — *Emerson.*






*Asbestos Magazine, 1939, July 1939*
ACL Doc 12285 · Page 31 of 51
Published by AsbestosClaims.Law
asbestosclaims.law/library/12285/31

# MORTON F. JUDD

## Prominent Raybestos Official Dies at age of Fifty-three

The Asbestos Industry was profoundly shocked on June 28th to learn of the death, on that day, of Morton F. Judd, General Manager of the Raybestos Division, and Secretary and Director of Raybestos-Manhattan, Inc.

Mr. Judd was well-known in the automotive industry and had a personal acquaintance with practically all of the Brake Lining Manufacturers.

Born in New Britain, Conn., on July 19, 1885, he received his early education at the public schools of Meriden, Conn., and attended Yale, being a member of the class of 1907. He began his business career with the Bullard Machine Tool Company of Bridgeport, Conn., and was later with the American Optical Company in the Promotion and Advertising Department.



*Morton F. Judd*

In 1916 he joined the Raybestos Company in their Sales Department; later becoming successively Assistant Sales Manager, Sales Manager and General Manager of the Bridgeport and Stratford Plants.

When Raybestos-Manhattan, Inc., was organized he was made Secretary and a Director of the Corporation, still retaining the General Managership of The Raybestos Division, which position he held until his death.

Mr. Judd had a very charming personality and a host of friends both in and outside the Asbestos Industry. His outside interests were many and varied; he was Vice



*Asbestos Magazine, 1939, July 1939*
ACL Doc 12285 · Page 32 of 51
Published by AsbestosClaims.Law
asbestosclaims.law/library/12285/32

President and Director of the Times-Star Company of Bridgeport, Conn., Director of two Bridgeport banks and of the Bridgeport Hospital, interested in civic affairs of Stratford, Conn., where he lived, and connected with the New York Athletic Club, Chemist Club of New York, University Club of Bridgeport, the Pootatuck Yacht Club of Stratford and the Saugatuck Fish and Game Club.

While he had been ill for several months preceding his death, he had recovered sufficiently to renew his interest in his personal and business affairs and therefore his death was most unexpected to his family and friends.

The members of the Asbestos Industry have not only lost a valued associate but also a likeable and loyal friend.

## ROOFING CEMENTS AND CAULKING COMPOUNDS

Paint, varnish and roofing cement manufacturers have for years used asbestos fibres as "fillers", as most of our readers know. The asbestos fibres give the proper "plasticity" to roofing cements, caulking compounds and similar products — without it these materials would not have sufficient "body".

A few of these products placed on the market within the last year or two are of particular interest because they have some special feature which distinguishes them from similar products in the line.

For instance there is Gilsonite Varnish made by Mitchell-Rand Manufacturing Co. of New York City. This varnish is used for protecting or patching roofs, parapets, flashings, etc. In its making gilsonite (a chemical) is combined with heavy bodied linseed oil by a process which polymerizes or merges the two materials into a tough, flexible film which is practically impervious to ultra violet rays and is unaffected by sun or water. In application it was found that to increase the thickness of the film and at the same time reinforce it so that it would bridge small cracks and holes, it was best to add long fibered asbestos to the compound. Now the company recommends that



*Asbestos Magazine, 1939, July 1939*
ACL Doc 12285 · Page 33 of 51
Published by AsbestosClaims.Law
asbestosclaims.law/library/12285/33

where a semi-plastic of brushing consistency is desired a compound be made consisting of 90% Gilsonite Varnish and 10% long fibered asbestos. Where a thicker coating, of troweling consistency, is desired, it recommends 74% Gilsonite Varnish and 26% long fibered asbestos. In the case of interior basement walls where dampness is caused by seepage or absorption from wet earth, the company suggests the application of a special compound consisting of Gilsonite linseed oil varnish base reinforced with long fibered asbestos.

Then we have Sco-Co Redycote, a product of the Southport Paint Company, of Savannah, Ga. This is recommended for general roof repair and waterproofing purposes. It is made of asbestos fibres, vegetable gums and nondrying oils and has a heavy, semi-liquid consistency. It may be applied for the repair or resurfacing of all types of roofs, whether they be roll roofing of felt or composition felt, smooth or mineral surfaced, composition shingle, tin, iron, gravel or even concrete. The interlaced asbestos fibres reinforce the coating material and give it exceptional strength and wearing qualities. It is, by the way, made in a variety of colors. Another product by the same company is Sco-Co Plasticseal; it is made of the same ingredients as Redycote, has the consistency of thick paste and is particularly adapted to repairing leaky skylights, flashings, gutters, and the like.

And the caulking compounds. We daresay there is no caulking compound on the market that does not have asbestos fibre as one of its ingredients. One introduced not so long ago by the Tamms Silica Company of Chicago is made of asbestos fibre, rubber and linseed oil, these ingredients making possible a tough, elastic, airtight and waterproof material which it is claimed will give 5 to 10 years of service without the necessity of replacement. The compound sets rapidly and within 24 hours after application may be painted like wood or other materials. The manufacturer says that it expands and contracts as required and will not crack or check. But perhaps its most important feature is the fact that it may be applied with either gun or tool.

Caulking compounds, as our readers doubtless know,



*Asbestos Magazine, 1939, July 1939* Published by AsbestosClaims.Law
ACL Doc 12285 · Page 34 of 51 asbestosclaims.law/library/12285/34

are used around doors, windows, chimney bases and other places where rain, wind, etc., might seep in.

The recent trend in building construction, i. e., more window space, more fire resistant materials, and speed in completion, has resulted in a need for better caulking compounds with long life. When buildings, either of the home or industrial type, settle, crevices are formed, and unless these crevices are properly and promptly filled, such buildings become expensive to heat and maintain.

According to Charles F. Mason, Ph.D., noted chemical expert, a good caulking compound should be ready for application; capable of clinging to all types of walls; remain elastic and follow the movement of the wall as it expands; harden quickly at the surface; be adaptable to addition of colors for matching, not stick excessively to tools; remain stable at the range of temperature; and not stain adjoining surfaces or parts.

Caulking compounds are generally available in either paste form or in the form of a viscous liquid, the latter form being more in demand.

Among recommended formulae for caulking compounds which include the use of asbestos fibres, cited by Dr. Mason, is a paste form type with the following components: Boiled linseed oil 36 parts; whiting 20; asbestine 30; asbestos fibre 8; aluminum powder 6.

Components for a viscous liquid compound include: Boiled linseed oil 30 parts; oil varnish 17; silica 17; asbestos fibre 15; whiting 12; varnoline 9.

While the products described are similar both in their inclusion of asbestos fibre, and their use, the wider their field the more asbestos fibre required, and the special attributes of these various roofing and caulking cements tend to increase volume of sales.

---

People who will do unfair things for you are likely to do unfair things against you.

---

Success depends quite as much on our ability to see that we are wrong as to see that we are right.



*Asbestos Magazine, 1939, July 1939* Published by AsbestosClaims.Law
ACL Doc 12285 · Page 35 of 51 asbestosclaims.law/library/12285/35




**Africa (Southern Rhodesia)**

(Statistics by Rhodesia Chamber of Mines)

| | March 1939 Tons (2000 lbs. | Value £ | s | d |
|---|---|---|---|---|
| *Bulawayo District* | | | | |
| Nil Desperandum and Sphinx Mng. Co., Ltd. | 538.96 | 8,019 | 1 | 7 |
| Pangani (Pangani Tributors) | 8.55 | 51 | 9 | 7 |
| Shabani (Rho. & Gen. Asb. Corp., Ltd.) | 3,474.99 | 66,771 | 8 | 3 |
| *Victoria District* | | | | |
| King & Gath's (Rho. & Gen. Asb. Corp. Ltd.) | 749.93 | 11,979 | 19 | 3 |
| Murie Asbestos (Mashaba Rho. Asb. Co., Ltd.) | 20.00 | 268 | 3 | 7 |
| Regina (African Asb. Mng. Co., Ltd.) | 51.60 | 791 | 9 | 0 |
| | 4,844.03 | £87,881 | 11 | 3 |
| *March 1938* | *4,965.56* | *£79,626* | *3* | *6* |

**Africa (Union of South)**

(Statistics published by Dept. of Mines & Industries of U. of S. A.)

| | February 1938 Tons (2000 lbs.) | February 1939 Tons (2000 lbs.) |
|---|---|---|
| *Transvaal* | | |
| Amosite | 788.87 | 797.00 |
| Blue | 194.50 | 591.00 |
| Chrysotile | 1,225.22 | 23.00 |
| *Cape* | | |
| Blue | 484.46 | 445.00 |
| | 2,693.05 | 1,856.00 |

| | March 1938 Tons (2000 lbs.) | March 1939 Tons (2000 lbs.) |
|---|---|---|
| *Transvaal* | | |
| Amosite | 975.00 | 980.00 |
| Blue | 175.00 | 335.00 |
| Chrysotile | 1,067.00 | 88.00 |
| *Cape* | | |
| Blue | 464.00 | 532.00 |
| | 2,681.00 | 1,935.00 |

**Canada**

(Statistics published by Bureau of Mines, Province of Quebec)

Production May 1939 ..... 29,414 tons (2000 lbs.)
Production May 1938 ..... 31,007 tons (2000 lbs.)



*Asbestos Magazine, 1939, July 1939* Published by AsbestosClaims.Law
ACL Doc 12285 · Page 36 of 51 asbestosclaims.law/library/12285/36




**Imports into U. S. A.**

(Figures published by U. S. Dept. of Commerce)

*Unmanufactured Asbestos Goods:*

| | April 1938 Tons (2240 lbs.) | April 1939 Tons (2240 lbs.) |
|---|---|---|
| Africa (Br. S.) | 482 | 939 |
| Australia | ..... | 1 |
| Canada | 10,929 | 11,718 |
| Cyprus | ..... | 1 |
| Finland | ..... | 1 |
| Italy | 2 | 2 |
| United Kingdom | 25 | 30 |
| | 11,438 | 12,692 |
| *Value* | *$437,447* | *$592,402* |
| *Tabulation by Grades:* | | |
| Crude (Br. S. Africa) | 482 | 939 |
| Crude (Australia) | ..... | 1 |
| Crude (Canada) | 104 | 120 |
| Crude (Italy) | 2 | 2 |
| Crude (United Kingdom) | 10 | 30 |
| Milled Fibre (Canada) | 3,020 | 3,924 |
| Lower Grades (Canada) | 7,805 | 7,674 |
| Lower Grades (Cyprus) | ..... | 1 |
| Lower Grades (Finland) | ..... | 1 |
| Lower Grades (U. Kingdom) | 15 | ..... |
| | 11,438 | 12,692 |

*Manufactured Asbestos Goods:*

| | April 1938 Pounds | April 1939 Pounds |
|---|---|---|
| Austria (Packing) | 610 | ..... |
| Belgium (Shingles) | 75,754 | 149,184 |
| Canada (Packing) | 21 | ..... |
| Germany (Packing) | ..... | 1,271 |
| Germany (Woven Fabrics) | 426 | ..... |
| United Kingdom (Yarn) | 2,599 | ..... |
| United Kingdom (Packing) | 7 | 1,485 |
| | 79,417 | 151,940 |
| *Value* | *$ 2,753* | *$ 3,371* |

There were also imported during April 1939 $417 worth of




Published by AsbestosClaims.Law
asbestosclaims.law/library/12285/37

materials, unclassified, $156 of this coming from France and the remainder, $261 worth from the United Kingdom.

### Exports from U. S. A.

*Exports of Unmanufactured Asbestos* for the month of April 1939 amounted to 288 tons, valued at $27,191; in April 1938, 150 tons valued at $19,560 were exported.

*Exports of Manufactured Asbestos Goods:*

| | April 1938 | | April 1939 | |
|---|---|---|---|---|
| | Quantity | Value | Quantity | Value |
| Paper, Mlbd., Rlbd. ..... lbs. | 118,289 | $ 7,385 | 42,226 | $ 4,624 |
| Pipe Covg. & Cement .... lbs. | 121,516 | 7,938 | 346,103 | 18,927 |
| Textiles & Yarn ..... lbs. | 3,056 | 1,567 | 6,634 | 2,445 |
| Packing ..... lbs. | 78,674 | 46,174 | 105,569 | 64,692 |
| Brake Lining— | | | | |
| Molded & S.-molded ..... | ..... | 55,690 | ..... | 51,548 |
| Not Molded ..... lin. ft. | 134,489 | 25,471 | 70,604 | 12,504 |
| Clutch Facings— | | | | |
| Molded & S.-molded units | 16,533 | 5,853 | 15,814 | 5,706 |
| Woven ..... units | 10,538 | 2,621 | 9,941 | 3,490 |
| Magnesia & Mfrs. of .... lbs. | 315,344 | 26,058 | 529,436 | 101,446 |
| Asbestos Roofing ..... sqs. | 3,922 | 19,479 | 2,384 | 14,776 |
| Other Manufactures .... lbs. | 371,166 | 42,092 | 276,939 | 28,060 |

### Exports of Raw Asbestos from Canada

(Figures by Dominion Bureau of Statistics)

| | April 1938 | | April 1939 | |
|---|---|---|---|---|
| | Tons (2000 lbs.) | Value | Tons (2000 lbs.) | Value |
| United Kingdom ..... | 780 | $ 65,430 | 15 | $ 638 |
| United States ..... | 3,048 | 165,746 | 3,968 | 258,496 |
| Australia ..... | 60 | 3,263 | 520 | 31,082 |
| New Zealand ..... | ..... | ..... | 80 | 4,920 |
| Br. India ..... | 35 | 1,750 | ..... | ..... |
| Ireland (Eire) ..... | ..... | ..... | 28 | 1,316 |
| Czechoslovakia ..... | 39 | 3,630 | ..... | ..... |
| France ..... | 20 | 750 | 40 | 1,455 |
| Germany ..... | 730 | 82,712 | 33 | 4,180 |
| Italy ..... | 230 | 14,095 | 766 | 51,033 |
| Japan ..... | 8,526 | 344,728 | 2,779 | 160,354 |
| Poland ..... | 135 | 9,788 | 295 | 22,700 |
| Portugal ..... | 6 | 206 | 33 | 1,238 |
| Sweden ..... | 315 | 20,158 | ..... | ..... |
| | 13,924 | $712,256 | 8,557 | $537,412 |



*Asbestos Magazine, 1939, July 1939*
ACL Doc 12285 · Page 38 of 51
Published by AsbestosClaims.Law
asbestosclaims.law/library/12285/38

**Exports of Raw Asbestos from Canada (Cont'd)**

*Sand and Waste*

| | | | | |
|---|---|---|---|---|
| United Kingdom | 445 | 8,674 | 150 | 3,180 |
| United States | 6,762 | 123,400 | 7,216 | 127,693 |
| Australia | ..... | ..... | 20 | 480 |
| Br. South Africa | ..... | ..... | ..... | 9 |
| Columbia | 15 | 180 | ..... | ..... |
| France | 30 | 390 | 30 | 720 |
| Germany | ..... | ..... | 11 | 143 |
| Japan | ..... | ..... | 11 | 264 |
| Netherlands | ..... | ..... | 30 | 297 |
| Portugal | ..... | ..... | 33 | 792 |
| | 7,252 | $132,644 | 7,501 | $133,578 |
| | *21,176* | *$844,900* | *16,058* | *$670,990* |

**Imports and Exports by United Kingdom:**

*Imports of Raw Material.*

| | April 1938 | | April 1939 | |
|---|---|---|---|---|
| | Tons (2240 lbs.) | Value | Tons (2240 lbs.) | Value |
| From Africa (S. Rhodesia) | 1,512 | £52,114 | 1,253 | £32,354 |
| Africa (Union of S.) | 1,048 | 27,589 | 1,005 | 26,132 |
| Australia | 47 | 3,880 | 17 | 525 |
| Canada | 400 | 5,178 | 154 | 1,210 |
| Finland | 5 | 40 | 10 | 71 |
| Italy | 21 | 397 | 4 | 698 |
| U. S. S. R. (Russia) | 115 | 1,425 | 113 | 2,369 |
| United States | ..... | ..... | 4 | 30 |
| | 3,148 | £90,623 | 2,560 | £63,389 |

*Imports of Asbestos Manufactures:*

April 1938 ..... 32,565 cwts. valued at £10,983
April 1939 ..... 31,996 cwts. valued at £14,164

*Exports of Asbestos Manufactures:*

| | April 1938 | | April 1939 | |
|---|---|---|---|---|
| | Cwts. | Value | Cwts. | Value |
| From Eire (Irish Free State) | 2,925 | £ 3,020 | 745 | £ 1,991 |
| British India | 12,633 | 11,227 | 1,561 | 5,337 |
| Australia | 934 | 7,492 | 610 | 3,213 |
| Other Br. Countries | 34,834 | 36,703 | 25,386 | 28,374 |

*Continued on Page 32*



*Asbestos Magazine, 1939, July 1939* Published by AsbestosClaims.Law
ACL Doc 12285 · Page 39 of 51 asbestosclaims.law/library/12285/39

**Exports of Asbestos Manufactures (from United Kingdom) Contd.**

| | | | | |
|---|---|---|---|---|
| Netherlands | 1,208 | 5,500 | 1,163 | 4,557 |
| Belgium | 740 | 2,841 | 776 | 3,153 |
| France | 411 | 1,539 | 109 | 1,238 |
| Italy | 220 | 3,792 | 21 | 733 |
| Other For. Countries | 30,400 | 41,825 | 12,745 | 27,218 |
| | 84,305 | 113,939 | 43,116 | 75,814 |

**Exports of Raw Asbestos from South Africa**

| | February 1938 | | February 1939 | |
|---|---|---|---|---|
| | Tons (2000 lbs.) | Value | Tons (2000 lbs.) | Value |
| Argentine | 10 | £ 186 | ..... | £ ..... |
| Australia | 244 | 3,356 | 30 | 352 |
| Belgium | 15 | 266 | 7 | 120 |
| France | 99 | 2,362 | 120 | 2,739 |
| Germany | 146 | 2,955 | 22 | 877 |
| Italy | 6 | 132 | 42 | 833 |
| Japan | 303 | 6,065 | 20 | 300 |
| Netherlands | 20 | 318 | ..... | ..... |
| Netherlands Indies | 10 | 263 | ..... | ..... |
| Portugal | ..... | ..... | 25 | 652 |
| Sweden | 12 | 330 | ..... | ..... |
| United Kingdom | 1,162 | 21,621 | 405 | 9,710 |
| United States | 352 | 8,537 | 532 | 12,106 |
| | 2,379 | £46,391 | 1,203 | £27,689 |

| | March 1938 | | March 1939 | |
|---|---|---|---|---|
| | Tons (2000 lbs.) | Value | Tons (2000 lbs.) | Value |
| Africa (Fr. & W. Equatorial) | 2 | £ 35 | ..... | £ ..... |
| Algeria | .... | .... | 10 | 184 |
| Australia | 149 | 1,712 | 2 | 38 |
| Belgium | 15 | 277 | 95 | 2,097 |
| Canada | .... | .... | 12 | 211 |
| Denmark | 2 | 35 | .... | ..... |
| France | 15 | 363 | 141 | 3,239 |
| Germany | 173 | 4,224 | 125 | 3,547 |
| Netherlands | 37 | 607 | .... | ..... |
| Italy | 30 | 797 | 145 | 4,948 |
| Japan | 258 | 5,007 | 89 | 1,918 |
| Portugal | .... | .... | 10 | 266 |
| United Kingdom | 1,081 | 15,451 | 788 | 17,503 |
| United States | 45 | 933 | 383 | 8,690 |
| | 1,807 | £29,441 | 1,800 | £42,641 |



*Asbestos Magazine, 1939, July 1939* Published by AsbestosClaims.Law
ACL Doc 12285 · Page 40 of 51 asbestosclaims.law/library/12285/40

# NEWS OF THE INDUSTRY

**BIRTHDAYS.**

Thomas L. Gatke, President, Gatke Corporation, Chicago, Ill., July 16.

L. W. Noland, President, Noland Co., Newport News, Va., July 17.

L. B. Page, Pittsburgh, Pa., July 18.

W. N. Bolster, President & Treasurer, Asbestos Covering & Textile Company, Boston, Mass., July 20.

M. T. Rhodes, John M. Watt's Sons, Philadelphia, Pa., July 21.

C. R. Hubbard, Vice President, Garlock Packing Co., Palmyra, N. Y., July 25.

George R. Weber, General Manager, United States Asbestos Division, Manheim, Pa., July 25.

Frank C. LeRow, Vice President & Treasurer, Asbestos Asphalt & Insulation Mfg. Co., Chicago, Ill., July 26.

John Ozurovich, President, Atlantic Asbestos Corp., New York City, N. Y., July 31.

S. R. Zimmerman, President, United States Asbestos Division, Manheim, Pa., August 1.

Arthur C. Sprinkmann, Vice President, Sprinkmann Sons Corp., Milwaukee, Wis., August 3.

J. A. Whittaker, Secretary-Treasurer, Crandall Packing Co., Palmyra, N. Y., August 6.

A. P. Keasbey, President, Robert A. Keasbey Company, New York City, N. Y., August 6.

Paul C. Collopy, President, Acme Asbestos Covering & Flooring Co., Chicago, Ill., August 8.

F. A. Sharpe, Vice President, Thermoid Rubber Co., Trenton, N. J., August 8.

Grant V. Wilson, President, Grant Wilson, Inc., Chicago, Ill., August 11.

W. L. Steffens, Vice President, The Philip Carey Company, Lockland, Cincinnati, O., August 13.

Ernest Muehleck, President, Keasbey & Mattison Co., Ambler, Pa., August 15.

To all these gentlemen we extend best wishes and congratulations.

**ACME ASBESTOS COVERING & FLOORING CO.** of Chicago, Ill., has just issued a most attractive 20 page booklet (Catalog No. 39) printed in blue and black, on its "Blue Label" Insulations. The illustrations strike us as particularly good — quite a worthwhile addition to our library of asbestos advertising literature.

**THE RUBEROID CO.** announces the appointment of Edward F. Hale, formerly their Mobile sales manager, as manager of the



*Asbestos Magazine, 1939, July 1939*
ACL Doc 12285 · Page 41 of 51
Published by AsbestosClaims.Law
asbestosclaims.law/library/12285/41

company's entire Mobile division, to succeed the late Douglass G. Adair, who died on June 4.

Mr. Hale, a resident of Mobile for the past nine years, and widely known among building material dealers thruout the South, has been connected with the building industry virtually all of his working life. He was first employed (in 1924) as a salesman at Baltimore for the Continental Roofing Company, whose asphalt shingle and roofing plants at Baltimore and Mobile were later acquired by The Ruberoid Co. In 1930, after having advanced to an important supervisory position in the Ruberoid sales department at Baltimore, he was appointed general assistant to Mr. Adair at Mobile, later becoming sales manager of the Mobile division.

Ernest J. O'Leary, formerly assistant sales manager of the company's Baltimore division, succeeds Mr. Hale as sales manager at Mobile. Mr. O'Leary has been associated with the building products industry since 1926, when he entered the employ of Eternit, Inc., manufacturers of asbestos-cement building products at St. Louis, Mo. In 1930, when the Eternit plant was acquired by Ruberoid, Mr. O'Leary was transferred to the Company's Baltimore division, where he was first placed in charge of sales of asbestos-cement products and later appointed assistant sales manager.

The Mobile division of The Ruberoid Company is part of the Company's Southern division, comprising both the Mobile and Baltimore territories and operating under the general direction of Stanley Woodward, Vice President of the Company with headquarters at Baltimore. The Ruberoid plant at Mobile is one of the largest of eleven large factories operated by The Ruberoid Company thruout the country. At this plant are made asphalt building products and asbestos-cement roofing shingles and sidings. About 250 men are normally employed.

The Ruberoid Company plans to increase the volume of its advertising in a forthcoming campaign being worked out at the present time. National magazines and trade journals will be scheduled, with copy devoted to a new version of the "modernizing" theme. Wildrick & Miller, Inc., is the advertising agency handling the account. The announcement of this advertising campaign followed the company's two-day general sales conference held June 22 and 23 at the Hotel Commodore, New York City.

Three employees of the Erie, Pa., division of The Ruberoid Co., Frederick Gable, felt machine operator with a continuous service record of 56 years; Clifton V. Sturdevant, division purchasing agent, 46 years, and Frank A. Parsons in charge of plant maintenance, 32 years — will retire on July 1 with life pensions provided by the Company. Mr. Gable is the oldest of all Ruberoid employees in length of service, having been first employed as a rag sorter at the Erie plant of a predecessor organization, the H. F. Watson Company four years prior to the founding of The Ruberoid Company.



*Asbestos Magazine, 1939, July 1939* Published by AsbestosClaims.Law
ACL Doc 12285 · Page 42 of 51 asbestosclaims.law/library/12285/42

## • BLUE ASBESTOS

The Cape Asbestos Company, Ltd., is the world's largest supplier of acid-resistant blue crocidolite asbestos, and the only manufacturer operating its own mines. Inquiries solicited on:

**MILLBOARD** **YARNS**
**ROVINGS** **POWDER** **CLOTHS**
**PROCESSED FIBRES**
**Unexcelled for use in**
**ASBESTOS CEMENT PIPES**

## • AMOSITE ASBESTOS

This fibre owing to its great length and bulk is unrivalled for use as an insulating medium in:

***Asbestos mattress filler***
***85% Magnesia insulation***

**The CAPE ASBESTOS CO.** Limited
**Morley House, 28-30 Holborn Viaduct, London, E.C.1.**
FACTORY, BARKING, ESSEX

***United States Sales Agent:***
**ARNOLD W. KOEHLER**
**415 LEXINGTON AVE.** **NEW YORK CITY**
TELEPHONE—MURRAY HILL 2-8287




*Asbestos Magazine, 1939, July 1939*
ACL Doc 12285 · Page 43 of 51
Published by AsbestosClaims.Law
asbestosclaims.law/library/12285/43

**THE CELOTEX CORPORATION** announces the appointment of Marvin Greenwood as general sales manager, succeeding J. Z. Hollmann, who is taking leave of absence due to ill health. Mr. Greenwood has been associated with The Celotex Corporation since 1935, and has played an active and important role in the company's growth. His first position was in the home office handling sales correspondence, later he became general assistant to the sales manager; in 1936 he was made manager of the St. Louis branch; in 1938 assistant general sales manager, in the general office.



*Marvin Greenwood*

Mr. Hollman will return to the company in an executive capacity at a later date.

**SOUTHERN MINING & MILLING COMPANY** of Clarkesville, Ga., are making an exhaustive survey of the amphibole asbestos resources of the Southeast portion of the United States and expect to mine and mill this material in the near future.

**ACE ASBESTOS MFG. CO.** The new address of this Company given in our June number was incorrect. The correct address is 59-71 Imlay St., (Building No. 8), Brooklyn, N. Y.

**ERNEST MUEHLECK,** President of Keasbey & Mattison Company, sailed on June 28th, on a business trip to England. He is expected to return about August 1st.

**KEASBEY & MATTISON COMPANY,** Ambler, Pa., is giving its workers a week's vacation with pay, their plants having been entirely closed down during the week of July 3rd, and only a skeleton force maintained in the office.

The plan was tried out in 1938 and found to work so well that the vacation with pay was given their workers again this year.

**RAYBESTOS-MANHATTAN, INC.,** Bridgeport, Conn., has established an Industrial Sales Division which will handle the sales of asbestos textiles, packings, compressed sheet, rubber packings and industrial friction materials. The Division is in charge of George W. Marshall, Jr., as General Manager.

**J. G. ROSS,** Manager of Asbestos Corporation Limited, Thetford Mines, Quebec, has recently been honored by the Department of National Defense at Ottawa, who have just announced his appointment as Honorary Lieutenant-Colonel of the Fifth District Engineers, Royal Canadian Engineers. Headquarters of this unit of the Canadian Militia are at Thetford Mines.

**U. S. CENSUS of MANUFACTURES** for 1937 on Asbestos Products has now been issued in printed form. The figures given



*Asbestos Magazine, 1939, July 1939*
ACL Doc 12285 · Page 44 of 51
Published by AsbestosClaims.Law
asbestosclaims.law/library/12285/44

in this printed report are practically the same as those given in the preliminary report, and published in January 1939 "ASBESTOS", page 12, altho some slight changes are noted, due, no doubt, to receipt of additional information after the preliminary report had been released.

Copies of the printed report may be obtained from the Superintendent of Documents, Washington, D. C. The price is 5c per copy.

**ASBESTOS CORPORATION LIMITED.** C. H. McNaughton, M. E., has been appointed Superintendent of the Vimy Ridge Mine of Asbestos Corporation Limited, succeeding T. Roy, who has retired on pension.

Mr. McNaughton has been connected with the Company for several years, and was Assistant Superintendent at the King Mine prior to his present appointment.

## PATENTS

This information obtained from the Official Patent Gazette, published weekly by the U. S. Patent Office, Washington, D. C.

**Asbestos Cement Shingle.** No. 2,156,310. Granted on May 2, 1939 to Charles Schuh, Brooklyn, N. Y., assignor to Bakelite Building Products Co. Application January 23, 1936. Serial No. 60,447. Renewed July 11, 1938.

A low pressure process of producing low density hydraulic cement fibre shingles which comprises forming a dilute aqueous suspension containing a major portion of hydraulic cement, a water repellent compound and fibrous material containing a sufficient amount of short flocculated fibres forming a large settled volume of pulp of not less than about 4 pounds per cubic foot when intimately mixed with said hydraulic cement, dewatering said dilute aqueous suspension to form a cement-fibre matrix and subjecting the thus formed matrix to a low pressure to produce a finished cement-fibre shingle, constituted of a substantially uniform structure containing a multiplicity of microscopic voids in excess of 25% of the total volume and distributed substantially uniformly thruout the cement and having a moisture absorption of less than 25%.

**Cement Fibre Product.** No. 2,156,311. Granted on May 2, 1939 to Charles H. Schuh, Brooklyn, N. Y., assignor to Bakelite Building Products Co., Inc., New York City. Application April 9, 1938. Serial No. 201,083.

A compressed asbestos cement-fibre composition of substantially uniform physical character comprising cement particles and finely beaten fibrous material substantially in the form of individualized fibres of an average length up to about 1/20 inch; said fibres lying in substantially all directions and presenting with said cement particles a bonded composition substantially free of parallel matting of the fibre into planes of cleavage, said arrangement of fibres being such that there results in the com-



*Asbestos Magazine, 1939, July 1939*
ACL Doc 12285 · Page 45 of 51
Published by AsbestosClaims.Law
asbestosclaims.law/library/12285/45

position a substantially microcellular structure comprising a multiplicity of substantially uniformly distributed substantially microscopic voids constituting at least 30% of the volume of the composition.

**Method of Treating Composition Boards.** No. 2,156,382. Granted on May 2, 1939 to John Ferla, New York City, N. Y. Application Feb. 17, 1937. Serial No. 126,197.

Method of treating composition boards including the steps of placing the boards in a heated zone, maintaining said boards in said zone for a considerable time while in motion, and subsequently conducting said boards over a bath of paint to afford absorption and covering of the paint on one surface of said boards only.

**Reinforced Laminated Gasket.** No. 2,157,102. Granted on May 9, 1939, to John H. Victor, Wilmette, Ill., and Joseph B. Victor, Oak Park, Ill. Assignors to Victor Mfg. & Gasket Company, Chicago. Application November 6, 1936. Serial No. 109,500. Description upon request.

## ASBESTOS STOCK QUOTATIONS

(These figures are compiled from the Commercial and Financial Chronicle. No guarantee made as to their correctness.)

| | | June 1939 | | |
|---|---|---|---|---|
| | Par | Low | High | Last |
| Armstrong Cork | np | 34 | 40¾ | 35 |
| Asbestos Corp. (Com.) | np | 21 | 24¾ | 21½ |
| Celotex (Com.) | np | 10⅛ | 12⅞ | 10½ |
| Celotex (Pfd.) | 100 | 60 | 69 | 66 |
| Certainteed (Com.) | 1 | 6½ | 8½ | 6¾ |
| Certainteed (Pfd.) | 100 | 26¾ | 30¾ | 27½ |
| Flintkote (Com.) | np | 17⅜ | 22¼ | 17⅞ |
| Johns-Manville (Com.) | np | 66½ | 78 | 67 |
| Johns-Manville (Pfd.) | 100 | 127 | 133½ | 130 |
| Raybestos-Manhattan (Com.) | np | 18 | 21 | 18¾ |
| Ruberoid (Com.) | np | 19½ | 23½ | 21 |
| Thermoid (Com.) | 1 | 2⅞ | 3⅝ | 3 |
| Thermoid (Pfd.) | 10 | 17 | 19⅞ | 17 |
| U. S. Gypsum (Com.) | 20 | 85½ | 97 | 83 |
| U. S. Gypsum (Pfd.) | 100 | 74¾ | 177 | 176 |

## AUTOMOBILE PRODUCTION

The number of motor vehicles produced in the United States and Canada in May 1939 was 313,214 (297,508 in the United States and 15,706 in Canada).

This compares with a production figure of 210,174 in May 1938, and with 354,263 in April 1939.

The first five months of 1939 showed a total of 1,723,053 (of which 1,643,813 were produced in the United States and 79,240 in Canada) compared with 1,116,099 in the same period in 1938 and 2,395,716 in the first five months of 1937.



*Asbestos Magazine, 1939, July 1939* Published by AsbestosClaims.Law
ACL Doc 12285 · Page 46 of 51 asbestosclaims.law/library/12285/46

# THIS and THAT

**Of Age.** This issue begins our 21st year. Some of our readers must have remembered and decided to send us a rose or two. "Certainly enjoyed reading the June issue of "ASBESTOS". It improves with age" says one reader, and another "We greatly enjoy reading this publication as it comes along". Gentlemen, we thank you.

**Potash vs. Asbestos.** Pierre Van Paassen, in his book "Days of Our Years", mentioned asbestos as being extracted from the Dead Sea (see our May 1939 issue, page 30). A reader suggests that Mr. Van Paassen probably confused potash (which actually is being extracted from the Dead Sea) with asbestos, pointing out that to one probably unfamiliar with either material, the error would be quite easy to make. We believe the reader is correct in his reasoning, and therefore are proceeding to forget the incident.

**Coal Analyses.** It is now possible to secure complete, authentic information on the analyses of any size coal, from every shipping mine. National Coal Publications, 304 Law Bulletin Building, Pittsburgh, Pa., have secured complete copies of all analyses data, filed with the National Coal Commission by the District Producers Boards and the figures are being published in separate books for each District. If interested write the publishers for prices, and further information.

**Demons and Asbestos-Cement Pipe.** At the convention of the American Water Works Association held in Atlantic City from June 11th to 16th, asbestos-cement pipe of both Keasbey & Mattison and Johns-Manville manufacture was displayed. Both exhibits had unique features.

The K&M exhibit had small animated figures—representing the three demons of electrolysis, tuberculation and corrosion,—attacking the pipe without any disastrous results.

The feature of the J-M exhibit was a Ford automobile suspended from a piece of asbestos-cement pipe, thus illustrating the great strength of this material.

**G. E. Orders.** Orders received by General Electric Company during the first six months of this year amounted to $169,071,646, compared with $128,223,823 for the same period last year, an increase of 32 per cent.

**Latest Styles.** So popular have become outdoor fireplaces for outdoor picnics that manufacturers of asbestos gloves are making a special line for such use. Handy in shifting burning logs, hot grills, hot cooking utensils and the like.



*Asbestos Magazine, 1939, July 1939* Published by AsbestosClaims.Law
ACL Doc 12285 · Page 47 of 51 asbestosclaims.law/library/12285/47

# CONCLUSIONS

## Based on facts given in the previous pages

¶ It seems to us that our new cover page is distinctively an asbestos subject—photo was supplied by Johns-Manville.

¶ Paul I. Smith, author of the article "The Tannery" (see page 2 of this issue) expects to publish a book on asbestos in the Fall. Further announcement of this will be made in a later issue.

¶ The collection of specimens shown in the special insert in this issue and belonging to Asbestos Limited, Inc., is well worth seeing, and Mr. Newman of that Company will be glad to have you drop in and look it over anytime you are in New York.

¶ Exhibits at conventions, fairs, expositions, conferences and the like, are becoming more and more popular, and, in order to catch the public fancy, more and more interesting.

An exhibit used to be just what the word implied — a display of materials or products. Now every effort is made to depict in as striking a way as possible, some special characteristic, or the product in use.

At least this appears to be the idea of asbestos manufacturers, some of whose efforts along this line have been most ingenious.

¶ As a whole the Asbestos Industry is showing fair activity in its various lines; some products, especially those which can be classed as building materials, are surpassing expectations.

¶ Our effort to render special service by supplying information of various sorts to readers seems to be really helpful, judging by the large number of inquiries for data which are constantly arriving. Some day we are going to tell you more about them.



*Asbestos Magazine, 1939, July 1939* Published by AsbestosClaims.Law
ACL Doc 12285 · Page 48 of 51 asbestosclaims.law/library/12285/48

# . . . YOU CAN BUILD PACKING SALES WITH

## EHRET'S VALLEY FORGE PACKINGS

They are quality packings, the line is comprehensive and complete, and prices are right. As a result of standardization by Ehret packing experts, dealer's stocks need not be large and special items are reduced to a minimum.

A packing manual which includes sections devoted to descriptions, recommendations and engineering data has been prepared by the Ehret Company to assist users of packings in selecting the proper type for a particular service. A copy of this effective sales aid will be sent to you on request.

EHRET MAGNESIA MANUFACTURING CO.
VALLEY FORGE • PENNSYLVANIA




Published by AsbestosClaims.Law
asbestosclaims.law/library/12285/49

# DO YOU KNOW--

That production of asbestos in Rhodesia during 1938 was 58,810 short tons, an all time high. 1937 production (the previous high) was 57,015 tons. . . . .

That George D. Crabbs, now President of The Philip Carey Manufacturing Company, entered Mr. Philip Carey's employ at the age of seventeen. . . . .

That in 1937 employees in the Canadian Asbestos Mining Industry numbered 3,842; in 1936 the number was 2,647. . . . .

That Cyprus, where an important asbestos mine is located, is the third largest island in the Mediterranean Sea, Sicily and Sardinia being first and second respectively. . . . .

?

*(Send us interesting facts about your company for use on this page).*


Published by AsbestosClaims.Law
asbestosclaims.law/library/12285/50




Published by AsbestosClaims.Law
**asbestosclaims.law/library/12285/51**