

THE HISTORY OF THE ASBESTOS TEXTILE INDUSTRY IN THE UNITED STATES

Chapter X: United States Asbestos Company
(now a division of Raybestos-Manhattan, Inc.)

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As edited by the Staff of ASBESTOS

The United States Asbestos Company was incorporated August 24, 1906, with an authorized capital stock of \$60,000. The company was founded in Manheim, Pennsylvania, by eight local businessmen who constituted the Board of Directors. It is interesting to note that no direct descendant of any of these families continued for long in the management of the company. George H. Danner was the first President and Chester Hill came from Kearsbey & Mattison Company to supply manufacturing know-how.

Products made by the original mill included asbestos yarn, cloth, brake lining tape and listing tapes. Several styles of high-pressure packing (cloth roll-up) were produced by hand. Rubber coating the asbestos cloth was accomplished in a simple dip tank containing a solution of latex and gasoline and after passing through squeeze rolls the rubberized fabric was laid out on long tables to air dry. The ever-present danger of fire was an accepted hazard.

The business grew rapidly from the start, constantly requiring additional capital funds. In 1910 the company was reorganized with a paid-in capital of \$175,000. S. R. Zimmerman assumed the Presidency at that time and Chester Hill was appointed Vice President and General Manager.

In 1911 fire severely damaged the original wooden factory building. It was replaced with a 120-foot x 174-foot brick building and the following year a two-story, 100-foot x 200-foot brick building was added. These were the original units of a plant which now comprises over 600,000 square feet of floor space. By 1914 a milestone was passed when employment exceeded 200 people. Present employment averages above 1600 people.

In 1919 B. Weber Luttenberger returned from service in World War I to take charge of the card room at Manheim. He rose through the ranks to Textile Superintendent, Factory Manager and finally Works Manager of the entire U.S.



Asbestos Division. Web Luttenberger served several terms as Chairman of the Air Hygiene & Manufacturing Committee of the Asbestos Textile Institute.

In March 1920 Osborn Hewes Cilley was engaged as Plant Superintendent. He came from C. G. Sargent & Sons Company, a manufacturer of textile machinery. In 1928 "O. H." Cilley was made Assistant General Manager and in 1941 he became a Director of Raybestos-Manhattan, Inc. In 1947 he was elected a Vice-President of the corporation. His manufacturing and executive ability was in large measure responsible for the continuous growth and very successful operation of the U.S. Asbestos Division over a period of more than 30 years.

In November 1921 the company was again recapitalized and reorganized. Chester Hill left the firm and Samuel R. Slaymaker came in as General Manager. Mr. Slaymaker was also President of the family-owned Slaymaker Lock Company, Lancaster, Pennsylvania. At the same time, George R. Weber joined the organization as Treasurer. On December 1, 1921, he was also elected General Manager and retained that position until his death in 1953. George Weber represented R/M at the organizational meeting of the Asbestos Textile Institute, November 16, 1944. He also represented his company during the preliminary discussions which resulted in the formation of the asbestos textile industry's trade association and, therefore, was one of the founders of ATI.

In 1923 Rudolph Wilde joined U.S. Asbestos as Textile Superintendent. He had had considerable experience in processing Crocidolite and Amosite asbestos fibers. Under Rudy Wilde's direction a small and separate manufacturing operation was set up to produce turbine blankets, principally for the U.S. Navy. The unit was commonly referred to around town as "the blue."

When Rudy Wilde joined U.S. Asbestos he brought with him his Card Room Foreman, Herbert E. Palm. Herb Palm progressed in the organization to Textile Superintendent, then to Factory Manager and at the time of his death was Works Manager. Herb Palm served two terms as Chairman of ATI's Air Hygiene & Manufacturing Committee.

One of U.S. Asbestos Company's earliest major accounts was the Manhattan Rubber Company of Passaic, New Jersey. U.S. Asbestos sold Manhattan large tonnages of open-weave

asbestos-metallic cloth for conversion into folded and compressed brake lining. HYCO brake lining consisted of frictioned asbestos cloth, folded to the desired width and thickness, then stitched, and finally cured. This was a popular style of brake lining, prior to 1926, when automobiles had external contracting brakes on the rear wheels only.

U.S. Asbestos Co. also sold tremendous quantities of untreated brake lining tape to the Raybestos Company at Bridgeport, Connecticut. Raybestos was simultaneously purchasing large footages of untreated brake lining tape and large tonnages of asbestos yarn from General Asbestos and Rubber Company, North Charleston, South Carolina. These three well-established buyer-seller relationships were largely instrumental in the formation of Raybestos-Manhattan, Inc., in 1929. The four mills—U.S. Asbestos, Manhattan Rubber, Raybestos and General Asbestos—comprised the foundation of Raybestos-Manhattan, Inc.

Prior to 1926 U.S. Asbestos sold "private brand" brake lining to almost any wholesaler who could purchase in adequate quantity. Numerous branding wheels were carried in stock for product identification. In 1926 the company decided it would be more advantageous to offer a full line of brake linings and clutch facings under its own brand name and the "Grey-Rock" brand name was selected. A small sales organization was established under Sales Manager Paul Jones to sell Grey-Rock brake lining to stocking jobbers in almost all major marketing areas. Carl Sachs was Marketing Manager. The year 1929 saw the introduction of "Grey-Rock Eagle" brake lining, woven from pretreated yarns (an important improvement at that time). In 1932 Franklin Miller took over as Sales Manager. Together, he and Carl Sachs built Grey-Rock into a major factor in the automotive aftermarket.

In June 1932 S. R. Zimmerman, Jr., graduated from the Sheffield School at Yale University. In September he joined U.S. Asbestos Division as an engineer working in the mill and in the Development Laboratories. In 1937 he was appointed Assistant Sales Manager of the Original Equipment Department. In 1948 he was appointed Director of Research for Friction Materials for the entire corporation. Mr. Zimmerman was appointed Assistant General Manager of the U.S. Asbestos Division in 1953, Vice President of R/M in 1955 and General Manager of the Division in 1968. He had been Executive Vice President of the corporation since 1961

and was elected Chairman of the Board in April 1970. He retired as Chairman effective January 1, 1971. Mr. Zimmerman is presently a Director of Raybestos-Manhattan, Inc., Raybestos-Manhattan (Canada) Ltd. and Cassiar Asbestos Corporation Ltd.

During the early 1930's General Electric Company operated an insulated-wire plant in the neighboring town of York, Pennsylvania. Logically the U.S. Asbestos Co. furnished the major portion of the asbestos requirements of this wire mill. The Plant Manager at the time was E. H. Lewis. (In later years Ed Lewis was President of Western Insulated Wire Company, Los Angeles, California.) He conceived the idea of insulating wire by carding asbestos directly on to the wire. This, of course, eliminated the two costly steps of producing asbestos roving and then serving the roving on to wire. Ed Lewis presented his idea to Web Littenberger who devised the means to accomplish the desired results using a standard 50-inch asbestos card. It was immediately recognized this was a case of driving tacks with a sledge hammer. The next step was to take the little Davis & Furber 10-inch wool sample card and convert it to a machine for carding asbestos directly on to wire. The refinement of these procedures resulted in the Lewis-Littenberger U.S. Patent #1,990,337, issued February 5, 1935. A corollary development was the manufacture of an asbestos lap to feed the small D&F card. Web Littenberger took 250-grain slivers from a standard 50-inch asbestos card and fed the slivers through a Derby doubler.

A broad ribbon of asbestos fiber was thus assembled having any desired weight ranging from 750 to 3000 grains per yard. Over the years this became the standard method of applying asbestos to wire. Practically every wire mill in the United States and Canada uses the Lewis-Littenberger method of applying asbestos to wire. The importance of this fact goes far beyond the volume of business produced for the asbestos textile manufacturers. This low-cost process helped defend asbestos as a wire insulation from the attempted inroads of competitive insulating materials. The lap process provides a low-cost means of utilizing the basic insulating qualities of asbestos fiber. Competing materials have not been able to match these qualities at comparable cost.

The year 1936 saw the development of one of the company's most successful products and a major usage for asbestos cloth. The Veelock clutch facing is made from frictioned asbestos metallic cloth. The cloth is slit into narrow

ribbons which in turn are wound into pads having roughly the same inner and outer diameters as the finished clutch facing. A patented feature of the process (U.S. Patent #2,096, 692, October 19, 1937) calls for creasing the ribbon as it is wound so as to provide a "Chevron" cross-section. The wound pad is then hot-pressed and finally surface-ground to its final dimensions. The interlocking Chevron construction provides a facing having exceptionally long wear and the greatest spin strength (burst strength) of any clutch facing construction. The U.S. Asbestos Division has furnished literally millions of Veelock clutch facings to automobile manufacturers and to the replacement trade during the past 30 years. It is still one of R/M's major products.

Now to return to the story of U.S. Asbestos. The Raybestos Company purchased General Asbestos & Rubber in 1921 in order to have an assured source of asbestos-metallic yarns. General also sold a full line of asbestos packing through jobbers under the Garco brand name. Similar lines of products were manufactured by the U.S. Asbestos Co. When Raybestos-Manhattan was formed in 1929 the two competing mills became a part of the same corporate family. Nevertheless, the competitive relationship was permitted to continue until 1938. In this year the Board of Directors decided it would be more efficient to have one Sales Division to sell asbestos textiles and asbestos packings for both mills. George W. Marshall, Jr., was appointed General Manager of the Industrial Sales Division. In later years George Marshall became a Vice President of the corporation. He served as the second President of the Asbestos Textile Institute in 1947 and 1948.

The Industrial Sales Division proved highly successful right from the start. George Marshall soon recognized the need for additional help and in January 1939 he hired Arthur W. Byxbee as New York District Manager. In September 1941 Art Byxbee went to Washington, D.C., to head the Asbestos Section of the Cork and Fibrous Glass Division of the War Production Board. He served in this capacity until April 1942 when he was given a commission in the U.S. Air Force. After the war Captain Byxbee returned to Mannheim as Assistant Sales Manager of the Asbestos Textile Division. He served two terms as Chairman of the Sales Promotion Committee of ATI.

By July 1939 George Marshall decided he needed a textile engineer to promote and develop the company's full line

of asbestos textile products. John A. Bettes, Jr., a graduate of the Philadelphia Textile Institute, was hired as Textile Sales Manager. Together he and Art Byxbee organized a team of specialty salesmen which led the industry in textile sales volume. Jack Bettes served as the seventh President of the Asbestos Textile Institute in 1957 and 1958. Ill health dictated his early retirement in 1966. At that time he was Manager of the Asbestos Textile Division.

In 1940 the Asbestos Textile Division issued the most comprehensive catalog of asbestos textile products ever published by any member of the industry. Jesse M. Weaver was the principal author of this volume, reflecting more than 30 years of experience in the industry. Jesse Weaver served several terms as Chairman of the Technical Committee of ATI and was for many years a mainstay of the industry's trade association.

In 1940 the U.S. Asbestos Division began marketing the line of "Pyrotex" asbestos felts. These felts are of a type commonly referred to in the textile industry as "non-woven." Pyrotex felts are furnished in all of the ASTM Grades from Underwriters' up to and including Grade AAAA. They have been used for years as standard base materials by practically all manufacturers of high-pressure plastic laminates. Starting in 1954 a substantial new market was developed for Grade AAAA Pyrotex felt. It was found to be an ideal material, in combination with heat resistant phenolic resin, for the molding of rocket and missile components.

In 1941 John A. Brown, Jr., was loaned by Keasbey & Mattison to the Cork Asbestos and Fibrous Glass Division of the War Production Board. During this service he was in close association with Art Byxbee and with George Marshall. (George Marshall spent 2-3 days a week at his Washington office during the latter part of World War II.) In 1942 Jack Brown was given a commission in the U.S. Air Force and was assigned to personnel work in Washington, D.C. At the conclusion of the war, Major Brown was appointed Philadelphia District Manager of the Asbestos Textile & Packing Division of R/M. In 1952 he was promoted to Assistant Sales Manager of the Asbestos Textile Division. When Jack Bettes retired in 1966 Jack Brown headed the Department as Sales Manager. He is currently Product Manager for Asbestos Textiles, U.S. Asbestos Division. Jack Brown served ATI as Chairman of the Sales Promotion Committee in 1963 and 1964 and as President of the Institute in 1965 and 1966.

February 4, 1944, was a proud day at Manheim. On this day the Army-Navy "E" (for Excellence) award was presented to the Division. At stated intervals the war record of each recipient of an Army-Navy "E" was reviewed. If the record was unsatisfactory, the pennant was withdrawn; if satisfactory, a star was added to the flag. The U.S. Asbestos Division earned three additional stars during World War II.

It will be of interest to our readers to know what war products won the foregoing recognition for the Division. Textile products included lap, roving and cable fillers used in shipboard cable. Several styles of Navy lagging cloths were woven in substantial yardage. The Friction Materials Department wove brake lining for passenger cars, jeeps and trucks. Heavy-duty woven brake blocks controlled the tracks of the famous Sherman tanks. The Packing Division furnished 101 different items used in a wide variety of war equipment including highly special packings furnished to "The Manhattan Project," the code name for the then secret development of the atomic bomb.

In 1947 Milton Q. Scowcroft graduated from the Textile School of the Rhode Island School of Design. He immediately joined the Asbestos Textile Division of R/M as a New England salesman under District Manager Phinias Otis Baker. In 1958 Milt Scowcroft succeeded Phin Baker as New York and New England District Manager. In 1966 he joined the headquarters staff as Assistant Sales Manager and in February 1969 was promoted to Sales Manager of the Asbestos Textile Division. Milt Scowcroft served as Chairman of the Sales Promotion Committee of ATI in 1968 and 1969 and is currently Vice President of the Institute and a member of the Board of Governors.

By 1955 the Revolite Division of Atlas Powder Company had been for many years a major R/M textile account. Manheim made the asbestos pads which Revolite installed on the rolls of flatwork ironers in commercial laundries. North Charleston wove the asbestos fabrics which Atlas resinated and converted to roll covers. In 1955 R/M purchased the Revolite Division from Atlas. William A. Michie continued to run the Division as Sales Manager. W. I. MacFall moved up to Sales Manager when Bill Michie retired in 1962.

Promptly upon graduation from the Philadelphia College of Textiles and Science in June 1953, Lewis C. Williams joined the U.S. Asbestos Division as a textile technician. In May 1956 he was promoted to Textile Superintendent and in

October 1969 was transferred to Marshville, North Carolina, as Plant Superintendent of the newly-acquired asbestos textile manufacturing facility. He served as a member of the ATI Fiber Testing Committee from 1957 to 1963 and was Chairman of the Air Hygiene & Manufacturing Committee in 1964 and 1965.

In 1959 Joseph P. Wronski joined the laboratory staff at Manheim as Head of the Physics Section. Joe Wronski had just completed three years with the Atomic Power Division of Westinghouse Electric Corporation. This was the Department created to develop the atomic reactor that powers the NAUTHLUS-type submarines. Joe Wronski served as Chairman of the Fiber Testing Committee of ATI in 1965 and 1966.

Until September 1970 the U.S. Asbestos Division was under the supervision of the then General Manager, Dr. Eugene P. Steff. Doc Steff graduated from Franklin & Marshall College in 1942 with a B.S. Degree in Chemistry. He was elected a member of Phi Beta Kappa. He earned his Ph.D. at the University of Pittsburgh in 1946. Dr. Steff entered the employ of the Division as Head of the Chemistry Section of the Manheim laboratories under Director Robert L. Moore. In 1953 he was promoted to Assistant Director of Research, in 1960 to Assistant General Manager, and to General Manager in 1967. He was elected a Vice President of the corporation in 1968 and Group Vice President of Operations in 1970.

The Division is currently under the direction of Kenneth A. Gainer. He joined the laboratory staff at Manheim in 1949 as a chemical engineer. For many years Ken specialized in quality control. His expertise in this field materially contributed to the successful manufacture of rocket and missile components, based on R/M Pyrotex, the non-woven asbestos felt. In 1966 he was appointed Product Manager of Friction Materials. Promotions followed in rapid succession and in September 1970 Ken Gainer was named General Manager.

In common with all members of the asbestos textile industry, the U.S. Asbestos Division manufactures products essential to the industrial economy. Most of these products are based on asbestos. In recent years the Division has broadened its activities and is now heavily engaged in plastics, notably fluorocarbons. The basic importance of these products to the overall industrial economy assures a steady growth in partnership with American industry.