

# ROPE MAKING IN LANCASTER, PA., AT THE MARTIN ROPE WALK

By George F. K. Erisman

No records remain nor are there any of the tools or materials to be found of the business established about one hundred and thirty years ago, by George Martin, who came to this town at that time. The information set forth in this paper has been obtained from two great-grandsons yet living here: Messrs. Frank Dorwart and John Martin, as well as old time associates of the Martin family; the technical description of rope making by hand, has been taken in part from the description of rope making as found in Encyclopedia Britannica but adapted to the local situation.

George Martin's rope business was first located on the south side of West King street beyond Mulberry street and about opposite the Baumiller Tannery property as it became known to us in the neighborhood.

In his family there were four boys and two girls, the names of the boys are John, Henry, Emanuel and George (2nd) the latter being the principal subject of this paper.

When George 2nd was about nine years of age, the Martin family removed to Ohio. The reason for going from a well settled community to a region of more primitive appointments is not known, nor whether the founder of the business died in Lancaster or in "the West," then so styled; neither is it known as to his place of burial. Some of the family went yet farther west, as, occasionally, letters would come from Indiana to Lancaster.

George (2nd) returned to Lancaster after about one year's stay in the western country.

Another son returned to Lancaster during the year 1875, for treatment of a throat affection by the late Dr. Henry Muhlenberg, who lived and had his office on West Orange Street, being the same building now used by the Lowell Harness business. After complete recovery this son returned to Ohio, in the vicinity of Canton. Dr. Muhlenberg cautioned him, that in order to prevent a recurrence of the affection he should allow his beard to grow.

George Martin (2nd) was born in Lancaster April 24, 1811. He learned the rope making business from his father, and began that industry on his own account at what is now known as No. 341 West King street, his residence adjoining the same, being numbered 339.

Bryson's City Directory, published in 1843, places "George Martin, rope maker" in the third block of West King street; Boyd's City Directory, 1859-60, lists the same place as being on West King street near Charlotte. Gospill's Directory of Lancaster, Harrisburgh, Lebanon and York, 1863-4, lists the place as No. 110 West King street. The present system of numbering came into existence some few years later, viz. assigning "One Hundred" to each block.

George Martin (2nd) became united in marriage with Elizabeth Roat, when she was 16 years of age.

To this union the following named children were born (besides several who died in infancy):

Sarah, married to a Mr. Miller and after widowhood to a Mr. Drepperd.

Mary, married to Roland Dorwart whose children were Frank, Elizabeth and Roland.

George (3rd) married to Elizabeth Dorwart. The children to this union being Clara, George (also has a son George 4th) and John.

David married to Kate Drepperd. The children to this union being Laura and William.

Katie, married to John Kline (first pressman of the Daily New Era). The children to this union being Katie and Frank.

Lizzie, married to William McComsey. The children to this union being Charles and Agnes.

Sue, married to John Brenner. One child born, Mary, and after widowhood to John Stone, one child born, Katie.

George Martin (2nd) is remembered as a solid, sturdy citizen. He was about 5 ft. 5 in. in height, smooth faced; had a highly retentive memory and possessed great physical strength. He was a man of deep religious convictions; he would not countenance secular labor to be done on Sundays even to the preparation of meals. He was among the early members of St. John's Lutheran Church, when it was instituted in 1853. This church is located at the corner of West Orange street and Arch alley.

Accompanied by two well known gentlemen of those times, Messrs. Augustus Reinoehl and Jacob Hoffmier, he was in the habit of visiting the various parts of the county, attending and taking part in religious meetings. Among his associates in his church fellowship he was familiarly designated as "Rope Maker Martin" in order to distinguish him from the other Martins in the congregation.

In politics he, in later years, referred to himself as an "Old Line Whig" and took great delight in telling of the strenuous times in his early political days, and especially about the "Tippecanoe and Tyler Too" pole that had been erected in the vicinity of his home at the time of the Harrison campaign in 1842. He was fond of fishing and hunting, taking vigorous part in the duties and pleasures that obtained in the period in which he lived. In his younger days he conducted what was termed "A Boxing School." Himself, and, in due time, assisted by his sons, George (3rd) and David, operated their business up to about 1880, when he gave over the active handling of it to his sons.

The process followed in hand-made cordage is described as follows:

Yarns, threads, lines, twines, cords, etc., all fall under the head of rope making. The fineness of the yarns and the number of strands contained therein determine the diameter of the finished product. The manufacture of rope is divided into two distinct branches, vegetable fiber and metallic, or wire rope. The Martin industry had to do with the vegetable product only, flax and particularly hemp, this latter material being noted for its strength, flexibility and durability. Cotton rope is favored for power transmission because of its smooth flexibility; sisal fiber is much used in rope making; and, because of its cheapness, jute fiber from India is much used. However, in order to give to it any degree of good service a proper proportion of hemp is combined with the jute.

The raw material, hemp, was brought to the Martin establishment by the farmers from the surrounding country, to be made into rope. It may be assumed that the growing of hemp in this county in the earlier days was a very important industry. Ellis and Evans History, Page 866, notes that Hempfield Township, one of the original divisions of the county, was so named because "large quantities of hemp were raised there."

The late Dr. Dubbs in his paper on Township Names, Vol. 1, page 3, read before this society calls attention to the fact that "certainly there was a Hempfield Parish in England" raising the question as to nomenclature. Again on page 871 in Ellis and Evans, reference is made to Hemp Mills and that Hessian prisoners operated at the mills, but whether Hemp Mills or others is not disclosed. Page 880, same authority, states that "the Haldeman Hemp Mill was allowed to go into decay.

James Lane Allen in his book entitled "Hemp" devotes much space describing hemp culture in Kentucky, and the important part the raising of that article played, in the value of Kentucky's agricultural output. He describes in detail the method of culture and laborious care required to bring it to the market. Mention is made of the adaptability of Kentucky soil, because of its

limestone character, to the favorable growing of hemp, which fact need only to be marked to remind us that our own county is eminently in the same class as to soil. In Vol. IX, page 285, of this society's publications is to be found an article on the subject of Hemp Culture, written by James Wright, of Wright's Ferry (now Columbia), in 1775, in which he sets forth in minute detail the methods pursued in this county in the cultivating of hemp. He states that ordinarily from 600 to 700 lbs. are produced from an acre; but by much cultivation the yield may be increased to 1000 lbs. Three bushels of seed are sown to the acre. The best machine or implement to rough break the cane was invented in this county. A beginner can manage to rough break about 50 lbs. a day, while an experienced hand can account for about 100 lbs.

The hemp fields present the appearance of just so many tall cane-like weeds, the stalks growing to a height of from 10 to 12 feet, and in thickness from one-half inch upwards.

The hemp grown in this county was regarded to be of excellent quality.

The Martins used Russian hemp, in later days, and it was regarded as the best that could be had, probably because the Lancaster grown hemp had become extinct.

And this, therefore, may be the answer as to why a skilled artisan would come to Lancaster one hundred and thirty years ago to work at his trade in a community that was then "the largest inland town in the United States." But even so rather circumscribed as to its capacity to absorb the product of a rope maker.

By examination we note that a rope is made up of a certain number of "strands." The strands are made up of a number of single threads or yarns. Three strands laid or twisted together form a "hawser-laid" rope; and three such hawsers, similarly laid make a "cable-laid" rope or "cable." The prepared fiber is twisted or spun to the right to form a "yarn"; the required number of yarns get a lefthand twist to make a "strand"; three strands twisted left form a cable. Thus the twist in each operation is in a different direction from the preceding one, and this alternation of direction serves to a certain extent to preserve the parallelism of the fibers. The primary object in twisting the fibers together in a rope, is, that by mutual friction they may be held together and carry the load when a strain is applied. Hard twisting has the further advantage of compacting the fibers, and, in preventing in a manner, the penetration of moisture as ropes may be exposed. For uses at sea this latter purpose is accomplished by treating the cordage to a bath of tar.

It is held that the proper degree of twist given to a rope is generally such that the rope is from three quarters to two-thirds the length of the yarn composing it.

The Martins received the hemp cane as brought to them by the farmers storing it in the "Hackle House" and prepared it for the spinning by hackling the fiber, similar to the process followed in the preparation of flax. (Flax has been exhaustively treated in a paper read before this Society entitled: "Flax Culture in Lancaster County," by the late Dr. J. W. Houston, Vol. IV, page 155.)

The hemp as received from the farmers was first prepared by "scutching" the thick parts near the foot-ends, by placing the canes on a frame and with a downward motion of the scutching tool dashed against the bottoms of the canes, the useless parts were broken off, thus preparing the canes for hackling. The hackle consisted of a wooden block, probably 15 inches in length, in which were firmly placed long tapered steel prongs having sharp points. Several sizes were used, the largest being made up of prongs 8 or 9 inches in length, the smallest being about 3½ inches in length. The cane fiber was violently thrown on to the prongs and pulled through the same according to the fineness desired with respect to the finished product, care being taken

to begin with the ends, gradually lengthening the treated portion or "streak" until the fiber is well split up through half of the "streak" when the hackler reverses the "streak" and remaining portion is treated in the same manner. The object was to separate the fiber into even, parallel strands. The process is similar, indeed, to the combing of human hair, before the advent of the Flapper and Bobbed Polls.

In some establishments the hemp was slightly treated with oil, which tended to soften the material, keep the hackle in good condition against rust, and overcome dust which otherwise would arise. Mr. John Martin, great-grandson of the founder, stated that his father, George (3rd), had not known of the observance of the use of this method in their establishment. The short fibers that accumulated in the hackle were spun into thick loose "ropes" which were sold to places which required material for "packing" purposes, such as excelsior is now used in like manner.

The spinning of the yarns into twines, cords or ropes was done under a long shed which extended from the rear of a shallow 1½-story frame building fronting on West King street down a rather steep grade to Grant street. The western side of this shed was the line fence of the property the late George Ackerman; the east side of the shed was not enclosed, and the floor was "Mother Earth." The length of rope that could be made in one operation was about 235 feet. Along the west side, at proper intervals, were placed suitable supports or brackets, upon which the product would rest while in process of being formed. The 1½-story building on the West King street front, was used as a store, where were sold the various products made by the Martins, bed-cords, halters, fishing lines, wash lines, seine twine, etc., varying from fishing lines to ropes 1½ inch in thickness were among their products. The upper part of the building was used for storage purposes, including raw hemp and the like. Just at the rear of the store and at the head of the "walk" stood "The Wheel," the outstanding and all-important implement in the manufacturing of cordage before the days of power machinery.

It was made of wood, about six feet in diameter, having a broad rim, from which the necessary cord belts extended to the spindles used in twisting the material to be spun.

Usually George Martin (2nd) would operate the wheel while his sons, George (3rd) and David, would attend to the spinning. The Wheel had to be operated with a steady and uniform speed. Great skill was required, as the weight of the yarn and the finished product depended on the manner in which the operations proceeded.

George (3rd) and his brother, David, each used to wrap one or two "streaks" of the hackled hemp around their respective waists, with the ends at their backs held in place by aid of their aprons and, starting from the Wheel, each in turn, putting a suitable quantity of material on his respective and proper spindle hook, already set in motion from the big Wheel, they walk backward down the slope, each feeding to the strands, being formed, the fibers from their "streaks" in such a manner that the strands when finished will be smooth and even. The spinners make use of a peculiar foot motion to signal the operator at the Wheel to govern and direct the speed of its motion; the spinners must be skillful in their work and feed the material either full or scant in order to make perfect the evenness of the product.

When the brothers reached the foot of the slope, each had finished a strand and the process is repeated until the required number of strands have been obtained for the purpose. A piece of wool cloth is held between the finger of the spinner of his right hand which aided in the formation of the threads as well as serving to protect his fingers from the rough fiber. This constant walking back and forth over great lengths of space fastens the Rope Walk to the business. The spinner must traverse the length of the Rope Walk many,

many times in the making of a rope before his task is done, all depending on the thickness of the cord or rope. Some Rope Walks were 1200 feet or more in length.

After the yarn has been spun, the "lay" of the yarns are prepared for further operations for the larger cords or ropes, a cone shaped piece of hard wood, provided with three equi-distant grooves, converging toward the smaller end is used, this is termed a "top"; three "yarns" as required, are fastened to the proper spindles, with the "top" placed between the same, blunt end toward the wheel, the spinners then walk up toward the wheel, the twist in the yarn causes the looping hook to revolve in the opposite direction to the other hooks and thus the three strands are twisted in reverse, when the spinners arrive at the wheel, the operator puts the newly twisted strand on one spindle and additional twist is given as required. In the larger ropes a heavy object is attached to the lower end, termed a "sled" or "drag." Sometimes it is necessary to weight the drag up to three hundred pounds or more, in order to overcome the twist given to the rope by the wheel. Also, in quite large ropes, a spindle is used at the lower end and turned in the opposite direction which tends to give greater twist and evenness to the newly-formed rope.

It was a common thing for the boys in the neighborhood to attempt the twisting of twines through their associations with the Martin boys, but they were not encouraged to loaf around the Rope Walk by the father nor take liberties with the same.

The first hand-operated elevator erected in this city was constructed in a building located where the American Caramel Factory now stands, Church street near Duke street, by a Mr. Francis Martin (not a relative, however), a millwright, who came to this country from Germany in 1848, and settled in Lancaster soon afterward. The endless rope with which to operate it was made in the Martin Rope Walk.

The product of the Martin Rope Walk was consumed largely in local territory. Hardware stores, saddlery stores throughout the county and nearby places being customers of the Martins.

George Martin (2nd) took his wares by wagon throughout the county and exchange the same among the farmers and others for supplies of all kinds, for those were the days of "trade and carry" and not "cash and carry."

Regularly he would supply the fisherman with twine for their nets or else complete nets which he would make himself. He visited Columbia and the fishing points up the Susquehanna as well as down the river as far as Carpenter's Point in Maryland. Cully's Falls, this county, now known as Holtwood, was a favorite place for him to go during the shad fishing time. Here there were at times 4000 shad taken in a single haul.

Along about the year 1880, he began to gradually withdraw from active work and his sons, George and David, carried on until about 1885 when the business was practically snuffed out by reason of the Cordage Trust which controlled the rope industry. The Martins could not purchase material as a price which would allow a profit.

He died December 24, 1885, and is buried in the family plot in Lancaster Cemetery. His wife survived him by a few years. She frequently said that in all their married life her husband had never given her a cross word. He was fond of his family. On his fishing trips he used a boat as the bed for his wagon and loaded his children all on it to go to the river, where he was prepared to go on the water also. It was a common practice for him to load the grandchildren in the "sled" when twisting ropes and give them a ride. At Easter time when the universal custom of hiding out in the open yard Easter nests for the "Bunnie" he prepared them with the off-fall of the hemp that remained in the hackles.

George Martin (3rd) was noted for his skill in splicing ropes. He had the ability to do this work in such a manner so that it was well nigh impossible to detect the splice. He was also a skilled musician, having been a member of the Famous Clemmens Cornet Band. The leader of this band, Daniel Clemmens, although possessed, it seemed, with almost uncanny ability to draw music from his favorite instrument, the cornet, was unable to read a note, and it was the business of Mr. Martin to impart any new melodies to his leader. They sat back to back. Mr. Martin would play from the score, and then Mr. Clemmens would reproduce from memory the same as the original, on his instrument, thereby gaining the necessary material to impart to his band.

David Martin served in the 122nd Regiment in the war between the States and his brother, George, served in the Emergency Troops at the time of the Gettysburg Invasion.

The writer's first knowledge, although living all his life within less than a city block from it, of the Martin Rope Walk, came to him when he was a pupil of Miss Margie Markee's School of Saint James' Parish, North Duke street, where athletics was introduced in the form of a tall pole from which thick ropes depended, the boys, and girls too, would use these ropes to swing around it, gaining such momentum as to be raised from their feet. We called it "The Flying Dutchie."

With the passing of the Martin Rope Walk, there went out of existence one more of the early industries that served to make this community complete in itself. Before its ending there passed away rifle manufacturing, hat making, paper making, comb making, edge tool making, the numerous early tanneries, pump making, the old time shoe maker and the like. Each one has given way to other methods and conditions, having served in their day the needs of the community which supported them.

N. B.—Mention should be made of a Rope Walk in the northern part of the city, established by George Schulmaier, and listed in Bryson's City Directory of 1843; this was about 600 feet in length, on which a paper could also no doubt be written.

### References in Collecting Material for The Martin Rope Walk

John Martin, 26 Charlotte street, Lancaster Pa., great-grandson of the founder.

Frank Dorwart, 30 S. Mulberry street, great-grandson of founder.

Conrad Moser, pumpmaker, West King street.

A. F. Reinoehl, 35 S. Princt street.

George Hoffmeier, E. King street.

Lewis Kiphorn, bricklayer.

George Ackerman, 349 W. King street.

William Miller, W. Chestnut street, boyhood days in neighborhood.

Fred Achey, 337 W. King street, boyhood days in neighborhood.

Wm. Bitner, tobacco warehouse owner.

George Zellers, huckster, mother's sister marries George Martin 2nd.

Charles Bowman, Millersville.

Chas. Diller, son of Isaac Diller, hardware dealer.

Leander T. Hensel, Quarryville.

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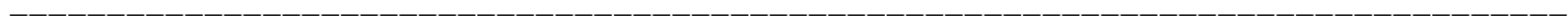
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