

THE TINFOIL INDUSTRY.

IT IS PURELY OF AMERICAN ORIGIN AND GROWTH.

The First Tinfoil Rolling Mill Was Established In New York City About Fifty Years Ago—Most Prepared Foods Are Wrapped In It—Millions of Pounds Used

Recent ornamental novelties made of pure tinfoil, lacquered with gold and embossed in various forms, manufactured for the drug, confectioners' and tobacconists' trades, serve to call attention to an invention and industry that are purely of American origin and growth. Before the inventor of tinfoil hit upon the idea of rolling tin upon sheets of lead, the two metals being previously welded together, the only tinfoil known to the world was that of pure tin beaten by a process similar to that followed by gold-leaf beaters. This beaten tin was made in England, and only small quantities were imported into this country. Its use was limited because of its expense and its liability to tear.

The first tinfoil rolling mill was established in New York City half a century ago, and it was started on such a modest scale that the rollers were obtained as second-hand iron. The English-beaten tinfoil was found to be so expensive in this country that a cheaper method of making it was tried, and proved successful. The business of this early, but not extinct, tinfoil factory was thus announced: "Foil Rolling Mill and Metallic Cap Works; tobacconists' foil, plain or embossed, tin sheet-foil for druggists and bottlers, superior to the imported article."

In the half century which has followed this modest beginning of an industry great strides have been made in manufacturing tinfoil and in applying it to manifold commercial uses. New machines have been made to work it up into handsome ornamental forms, and considerable capital has been invested to extend its usefulness. There is very little export trade in tinfoil, as the foil is also made extensively in England, France and Germany, but the home trade is adequately supplied by the four tinfoil factories in this country—two in New York, one in Philadelphia, and another in St. Louis. After the expiration of the original patents these four factories started almost simultaneously, and they have controlled the output of the material ever since.

New machinery and processes for improving the tinfoil are being invented nearly every year, and the quality of the material produced today is infinitely better than that of a dozen years ago. A good deal of the new machinery is made to enhance the ornamental effects of the foil, but not a little of it is made to increase the strength and wearing quality of the material. In the druggist and confectionery trades the demand for very highly ornamental tinfoil effects is especially urgent, and artists of considerable ability are engaged to produce fancy patterns. The silvery surface of the tinfoil is made more effective by fancy patterns of stars, figures and fine lines, which are stamped or embossed in the sheets by special machinery. Recently machinery was made to print the patterns on the sheets of foil in colors. In order to do this the sheets of foil are put through regular printing cylinder presses, which not only color the patterns but stamp in the "dead" effects of various figures and lines. The machinery required for this delicate work is quite elaborate and represents part of the invested capital of the plant.

The tinfoil is also lacquered handsomely with gold, which, in connection with the embossing and printing in colors, produces remarkably artistic effects. Many large firms employ these fancy effects as trademarks which are stamped or printed on all the foil they use as wrapping for their articles. Tinfoil is growing rapidly in use for wrapping purposes where food and other articles must be kept from the air as much as possible. Its first use was for tobacco wrapping, and the demand in this trade stands first today. Fine cigars, plug tobacco and cigarettes have the fine aroma of the tobacco and the natural moisture retained indefinitely by this process. Most prepared foods are wrapped in tinfoil, and now that the manufacture of these has grown tremendously the demand for tinfoil has increased also to remarkable proportions. Cheese, yeast cakes, and other products of the delicatessen order require annually tons of pure tinfoil. Confectioners also have resorted to the use of tinfoil for wrapping their choice candies in preference to tissue paper. The drug trade has found infinite uses for the foil because of its air-tight qualities, which keep the goods from direct contact with the atmosphere.

Perishable goods shipped to warm, tropical countries are frequently wrapped in tinfoil to exclude the air and to retain the natural moisture. A combination of tin paper and tinfoil is considered better for food products than the foil alone. It was considered better not to have the foil come in direct contact with the food, and consequently a machine was made by which the sheets of tinfoil and paper were firmly adhered together. These double sheets are used so that the paper alone comes in contact with the food, while the tin serves all the purposes of excluding the air. There is considerable labor of folding saved by this process, and only one instead of two foldings is required for each separate article.

Bottle caps are manufactured largely out of tinfoil, but they are of a

different quality and manufacture from that of the ordinary foil. The sheets for this work are spun on a lathe from a mixture of lead and tin. There is more lead in this foil than in the finer quality for general use. The foil is thicker and coarser, and as it never comes in contact with the contents of the bottle the amount of lead in it is immaterial from the consumer's point of view. The thickness of the tinfoil in common use runs from one-half of one-thousandth of an inch up to almost any thickness required by special trades. The thinner the foil is rolled or spun the more expensive it is. The foil is rolled usually in sheets 50 feet in length and in varying widths. Some machines are made to roll it 12 inches wide, but most of them have only half this width, as trade demands favor the narrower widths. After the sheets are rolled they are stamped, printed, and embossed in suitable sizes and patterns, and then cut up in lengths desired. Millions of pounds are required for the trade in this country, and the market price runs from 75 cents per pound for the handsome embossed and lacquered foil down to a few cents a pound for the cheaper grades.—G. E. W., in the Scientific American.

THE HOME OF WOODEN TOYS.

A District in the Tyrol Which Is Wholly Given Over to Wood Carving.

Two English girls have been telling rather an interesting story of life in the Gordner valley in the Tyrol, which is the home of wooden toys and is literally given over to wood carving. "Baedeker" says that St. Ulrich, the capital of the district, has 2300 wood carvers and a good hotel. The English girls corroborate the statement and add that the place is well worth a visit, although, in order to enjoy it, one must stay there long enough to tramp up and down hills and make acquaintances in the little chalets where everyone, old and young, is busy with some sort of wood carving or toy making.

One lives in good society in St. Ulrich, so it seems. Saints and heroes of assorted sizes are ranged comfortably outside of the chalets and in the gardens, drying their halos and robes. St. Peter, St. Paul, the Virgin and Andreas Hofer, the Tyrolean hero, hobnob on one corner; while St. Anthony of Padua, repeated five times, dozes on a bench against the wall, and St. Florian, eight feet high, smiles from the steps at St. Sebastian, trundled by in a barrow.

Rows of fresh and shining angels are on every hand and look with benign interest at whole squadrons of splendid rocking horses that go romping around the grounds, and hundreds of staring wooden dolls sit stiffly upon sunny shelves and envy the angels. Crucifixes are scattered everywhere. Noah's Ark animals stare, panic-stricken, at piles of wooden skulls.

Everywhere there is sawing, hammering, chipping, painting. At the age of six the children begin to learn the carving trade, and they stick at it until they die. The most famous workman carver in the district carves nothing but crucifixes and has done nothing else for 20 years. All of her work is ordered long in advance, and as her prices, though low, are better than those of most of the carvers she makes a fair living.

She uses no model. That is true of almost all of the workmen who have learned their craft through long years of experience. When a carver has evolved 500 St. Anthonys all of a pattern, from tree trunks, he learns to know his saint and has no need of a model. Very often a worker sticks to some one figure and attempts nothing else, a method which opens up awful vistas of monotony.

One family turns out brindled cows by the gross. Another has for years carved nothing but skulls and crossbones. The English chronicler doesn't tell what effect the gruesome monotony has had upon the members of the family, but the situation sounds Maeterlinckian.

One woman makes tiny wooden dolls and each of her children, even the five-year-old, has some part in the work. One shapes the legs, another paints the faces, another fits the parts together. Six hundred dozen of the dolls were stacked up against the wall when the English visitors called; and, for making the lot, the workers expected to receive about \$3.

In another cottage three generations of a family were busy painting wooden horses, and said proudly that they could turn out 20 dozen a day. None of the toys is sold at retail, all being intended for the big wholesale depots at St. Ulrich.

On Saturday every mountain path is crowded with men, women and children carrying the wares to the Jepsots. A flood of saints, angels, crucifixes and toys pours into the depots all day long; and, in the evening, the peasants turn homeward, ready for another wholesale creation week.—New York Sun.

Dogs in Europe.

France is reported to hold the European record for dogs. It is stated that it contains no less than 2,864,000 dogs that are registered. Not only are there more dogs in France than in any other country in Europe, but there is also a greater number per thousand inhabitants than in any other European country. France has 75 dogs to every thousand of its inhabitants. Then follow Ireland with 71, England with 38, Germany with 33, and Sweden with 11. It is very satisfactory to find that societies for the protection of dogs are on the increase. Such societies do a noble work, and they are deserving of every encouragement.—Paris Messenger.

PEARLS OF THOUGHT.

The reward of a thing well done is to have done it.

Idleness is both a great sin and the cause of many more.

Our deeds determine us, as much as we determine our deeds.

Some men take a lifetime to prove how much wisdom they lack.

A moral wrapped up in sugar goes down certainly, but it may be feared that it only goes down because of the sugar.

It is only the critic and the philosopher who can penetrate into all states of being, and realize their life from within.

There are seasons when to be still demands immeasurably higher strength than to act. Composure is often the highest result of power.

The art of putting men in the right places is the highest in the science of government, but that of finding places for the discontented the most difficult.

It is the compensation of the humble that the fountain of their blood is made sweet by denial, swift by plain fare, and strong by living close to nature's heart.

The habit of blaming others when things go wrong is an insidious and dangerous one. Far more is it to the purpose to inquire within whether the fault, or much of it, may not lie at home.

He who is everybody's friend is generally nobody's. The character which can shape itself to fit in every niche is like an India rubber ball, too malleable to stay long anywhere or have much inside except air.

BIG MAP FOR THE WHITE HOUSE.

Coast-Survey Work, Giving Complete Geographical Information.

The coast and geodetic survey has for some time been preparing a map of the world for the war room at the White House. It will cover one whole side of the room, which means dimensions of perhaps 30 feet by 15. It contains all the geographical information of a general nature that a president of the United States and his corps of telegraphers would seemingly need to know. It shows the location of all the ocean cables in the world, of all the coaling stations, of all the docks where ships may be repaired; and every foot of soil, including the smallest islands, is marked so as to indicate the sovereignty to which it is subject. This is done by the adoption of a color for each of the great colonizing powers.

It is surprising to note the number of small islands that already belong to the United States, through their acquisition for one purpose or another by American citizens. A notable fact about the ocean cables is their abundance in the Atlantic ocean, between North and South America and Europe, and all the seas about the eastern hemisphere, but their conspicuous absence from the Pacific. While cables skirt the continents bordering on the Pacific, they do not strike out boldly across that ocean. The contrast, as revealed in this way, between the eastern and western routes to the Orient is most marked. All our messages from Manila come necessarily by the old-world route. It is quite probable that whatever is done in Pacific cables by the United States, the Suez will remain the great route of communication because of its opportunities for local business. This also suggests that our own Isthmian canal, as a commercial route, will be across the direction of the world's great commercial movements.

Officers of the coast survey say that they have had a great deal of trouble to bring this new map up to date in all particulars. Atlases and geographical text books are notoriously behind the times, so rapidly have changes been made in recent years upon the map of the world. The survey has accordingly gone to first-class sources in each instance, through consular inquiries and otherwise, and has made this map, as nearly as human handwork will do it, absolutely accurate. How long it will remain so is, of course, another matter. Upon it the Philippine islands and the country adjacent appear twice, so as to show completely the sunset and sunrise routes.—New York Post.

Mucous Lining and Music.

It's mean to tell this joke, but it is too good to keep. A popular society matron has a daughter who has a beautiful voice and is a very pretty girl. She has never taken singing lessons, and some of the singers have been consulted by her as regards their terms. One of these instructors has talked a lot to the mother about giving her girl lessons, and assured her that he was the fellow to develop that voice until it would be a "peach." He argued the matter over and over again every time he saw the lady and finally she said: "I wish my daughter to learn to sing, Professor High Notes, but she is not well. She is suffering constantly from a sort of indigestion, and I don't think she feels well enough to take the lessons."

"Pooh, pooh, my dear madam," replied the professor. "Nonsense! With my teaching and ten cents' worth of cream of tartar she will be cured at once."

And yet that obstinate mamma has not struck the trade. Maybe the daughter has objected to the ten cents' worth of cream of tartar.—Louisville Times.

The Word "Gazette."

It is doubtful whether the word gazette is from "gazza," meaning magazine, or from "gazetta," a small coin.

PRESENTIMENTS OF DEATH.

A Curious Mental Condition as Yet Unexplained.

"Students of the occult have as yet been unable to explain that condition of the human mind which produces what are termed presentiments of death," said a specialist to a Washington Star reporter. "That certain persons have experienced this condition cannot now be denied. I know, however, of but two authentic cases which have come under my personal knowledge in a practice of medicine of over 40 years.

"While in Cumberland, Md., a number of years ago, I new two men, both employes on the railroad, one at Cumberland and the other at Piedmont. Both were quiet, steady-going men. They were brothers-in-law, each having married the sister of the other.

"One day the Cumberland man, who was my patient, came to me and stated that he had dreamed the night before that his brother-in-law had been killed in a railroad accident. So vivid was the dream that he even described to me the wounds and their location on the body. He said that he was on his way to Piedmont to persuade his brother-in-law, who was a conductor, not to take his train out that day, and I advised him to follow his impression, for, while not a believer in premonitions, the man's condition was such that I knew if he persuaded his brother-in-law from going out it would at least restore his normal condition.

"He proceeded to Piedmont and acquainted his brother-in-law with his dream. The latter laughed at his fears but finally consented to heed the warning and my patient returned home believing that his mission had been accomplished. It appeared that the train dispatcher, learning of the conductor's intention, sent for him and stated that unless he took his train out, the road being short-handed, he would be dismissed. Rather than lose his place, he boarded his train, and was killed in a collision four miles out of town. Singular, though true it is, the dead man's wounds were identical with those his brother-in-law had seen on his body in the dream.

"The second case was that of a miner at Lonaconing, a few miles from Cumberland. He, too, was a patient of mine. One evening, before going on his shift in the mine, he talked with me for over an hour about the many fatal and other distressing accidents he had seen in the mines. He talked of nothing else, though it was the first time he had ever broached the subject to me, as he was a hardy, fearless miner. While I did not question him, I was convinced that he had had a premonition of death, but felt it unmanly to speak to his physician about it, probably believing that I would ridicule him. His mind was in such a condition, however, that it forced speech on the subject of death, and he undoubtedly took that means of relieving it, hoping to quiet his apprehensions.

"The significance of it lay in the fact that that day was to be his last on a contract he had in the mine, and no doubt in his heart he felt that he ought not to go down the shaft. His manly courage prevented his giving way to his feelings.

"He was killed. It seems that just as he was ready to start up the shaft, having completed his work, he had gone into an adjoining chamber for a shovel. As he stooped over, reaching for the shovel, a lot of slate, which is hard and sharp, fell from the roof, striking him in the back and nearly cutting him in twain. He lived long enough to tell his comrades that but for going back for the shovel he would have escaped with his life.

"Speaking about accidents, reminds me of one of the many which I saw in the mines that illustrate how hard it is to kill some men, as it brings up the ease with which other men meet their death. A man will dislocate his neck or break his back in a fall of three feet from a step ladder. Others have the nine lives of the proverbial cat.

I knew of a miner who missed his footing on the narrow track inside of a coal mine upon which the cars are run, and six of the loaded cars passed diagonally across his body. The cars were comparatively small, weighing about two tons loaded. In order to extricate him, his fellow miners found it necessary to run one of the cars back over his body. Strange to say, the man lived. He afterward went back to work in the mines, and so far as I know, lived for many years. He was alive when I left the region. It was one of the most remarkable instances that ever came under my observation of the tenacity of life under conditions which ordinarily produce death."

Advice to Mothers.

She—I can't make out how it is that Mrs. Wise has fish for nearly every meal. It can't be for economy's sake, for she must be fairly well off.

He—She has a large family of unmarried daughters, you know.

She—Now, don't be nasty, and say something about girls and their brains; that's so old.

He—Oh, no, I hadn't the slightest intention of doing so.

She—Well, can't you tell me?

He—I don't know, I'm sure, unless it's because fish are rich in phosphorus.

She—I don't see what that has to do with it.

He—Perhaps not, but still it's good for making matches.—London King.

The Bill All Right.

"My dear sir, it strikes me that it is a pretty round bill."

"Yes, I have sent it around often enough to make it appear so, and now I hope to get it squared."—Baltimore Jewish Comment.



Mischief.
Wonder who is Mischief;
Bothers me all day,
Fought I'd pick 'em all,
Tags me in the garden
Where I go to play.

Fought I'd pick some flowers;
Fought I'd pick 'em all,
"Careful, dear, there's Mischief,"
Heard my mamma call.

Peeked 'round 'mong the posies,
I couldn't see one flag,
"Cept one little birdie,
Dest a goin' to sing.

Never could see Mischief,
Always hides away,
But my mamma sees him
Many times a day.

Says he's in the pantry,
Sees him on the shelf,
Where I climb for tookies,
Says he is an elf.

Probably he's a Brownie,
Tired of being good,
Wish he'd stay in Elf-land;
I-d-d-d-wish-he-would.
—Chicago Record-Herald.

Something About Icebergs.

Navigators of the North Atlantic have to be constantly on watch during the summer months, for the icebergs that come down from Greenland and other Arctic regions. Some vessels are fitted with apparatus that gives immediate warning of the vicinity of one, but where there is no such apparatus, the temperature of the water is taken at intervals, for an iceberg will make a vast extent of sea cold. An iceberg is nothing but part of a glacier that has been detached by the action of water, washing and beating against it. Some of them are of enormous size. It is generally accepted by scientific men that only one-eighth of the berg appears above the water. If, therefore, the part that is visible rises 50 feet above the surface, the part under water would measure 350 feet. No wonder the sea captains have a holy horror of them.

Music Dog Was a Sabbatarian.

A little white dog that sits on the music box of a blind man in Minneapolis, and permits people to drop pennies in a basket tied around his neck by a ribbon, on last Fourth of July refused to attend to business. He snarled and showed his teeth when any attempt was made to put on his uniform. The little fellow frisked and gambled, tugged at his chain, bit the stump tails of his stray companions and generally misbehaved himself.

The blind man says that the dog has never been asked to work on Sunday. He thinks that Sunday ought to be a day of rest for blind men and dogs as well as more fortunate beings, so every Sunday the dog gets an extra fine breakfast, consisting of boiled liver, and full liberty to do precisely as he pleases. Thus the little curly dog has come to regard Sunday as a full holiday, and he knows when the day comes around, because on that day his master puts on a white shirt and his best hat. The blind man is patriotic, and so on the Fourth he wore his white shirt and best hat, hence the little white dog thought that it was Sunday, and refused to work.—Our Dumb Animals.

A Doll with Real Hair.

There are dolls and dolls, but Naomi Oles, a Pennsylvania girl, has in her possession one which is considered as valuable as any in the country. It has caused no end of comment in the locality where she lives, because of the hair on the doll's head.

If any of our girl readers were to make a demand on their fathers for several locks of hair, to give realism to the headgear of a doll, they would probably be denied the boon, as some fathers have no hair to spare, while others, haunted by signs of approaching baldness, are not anxious to make a sacrifice for a member of the nursery.

The hair of Naomi's doll actually came from the head of her father. It happened in this way: Twenty-one years ago Mr. Oles was the proud possessor of silken locks with a natural tendency to curl. As he grew older his mother thought it was not becoming that a boy of his age should wear such pendants, and it was with much persuasion that she finally induced him to have his hair cut. When the barber had shorn him of his locks the mother secured them and placed them away for safekeeping.

Recently she had a doll's wig made of the hair, and having had it placed upon a pretty doll, the grandmother presented it to Naomi. The little girl is extremely proud of her gift, and seems to thoroughly realize the value of this doll with natural hair so peculiarly secured. Naomi's present is the envy of all the little girl friends in the vicinity of her home.—Young People's Magazine.

Tabitha's Generosity.

There is a close bond of sympathy and affection between Alice Searles, a five-year-old St. Louis girl, and her cat, Tabitha. They were both born on the same day. One of the first things Alice can remember about her babyhood is Tabitha. Ever since the little girl could toddle around, the cat has been her playmate, as she has no brothers and sisters. Alice and Tabitha have slept together, and what is more unusual, they have eaten together.

When Alice had her first high-chair and sat at the table with grown folks,

Tabitha teased to be given a place at the table also. Alice insisted on Tabitha's right to a place, and so the cat was placed in a high-chair by the side of her mistress. A napkin was placed under Tabitha's chin, and a plate of fish was set before her. Tabitha behaved splendidly. In a dainty way she helped herself to the fish, and quite won the favor of the family, much to the delight of Alice.

From that time Tabitha was given a seat repeatedly at the table, and she was as prompt at her meals as her little mistress. She learned to know the sound of the dinner bell as well as any one in the house. Tabitha especially enjoyed dinner on Fridays, for the family was accustomed to have fish on that day, and if there was any dish that the cat loved it was fish.

One day this led to a remarkable happening. The dinner bell had rung and all the family were in their seats except Tabitha, whose place was vacant. The dinner proceeded, and the dessert had been reached, when the cat came bounding into the room with two mice in her mouth. Before any one could stop her she jumped into her chair, and put one mouse on her plate, depositing the other on Alice's plate. Tabitha's generosity was not precisely what older people call good form, but evidently she meant it kindly, and the entire proceeding was so queer that the members of the family, including Alice, broke into full, round laughs. Of course the mice were removed from the table, at which Tabitha looked grieved. She seemed so sorrowful about the loss of her mice that Alice's parents decided to forgive her for her breach of etiquette and call the score even.—Young People's Magazine.

Damon and Pythias.

Damon and Pythias were two little chickens who lived in a large farmyard with a great many other chickens just like themselves. Their mother, as every good mother hen should do, taught them well how to hunt for tiny worms and insects, to eat, by kicking up the gravel and knocking aside little heaps of dust with their bills. But the time they liked best of all was when the farmer brought out an old milk pan full of moist cornmeal, and then they tumbled over one another like little fat puffballs, always managing to fall into the pan in their excitement, and staying there till it was wholly empty.

One day in the early summer, when the long, sunny afternoons began to grow uncomfortably hot, Dolly came to spend the summer at the farm. Now, Dolly wanted to have a chicken which was all her own, and picking out the downiest yellow one she bought it for five cents and kept it apart from the rest. Whenever it uttered its "peep, peep," she felt sure it was hungry, and gave it cornmeal. That seemed very kind treatment, surely, but when at the close of the second day she found the poor little thing lying stiff and cold, and another and yet another whom she tried to adopt came to the same sad ending, she decided that farmers did know more than little girls, after all, and it was not good for chickens to be always eating. Dolly had hardly made up her mind to this when she discovered Damon and Pythias. Damon and Pythias were always together; indeed, they seemed to be such good friends that the farmer's city cousin had given them their queer names in honor of two famous friends who lived long ago and were very fond of each other. When Dolly first saw the two all the other chickens were standing about thinking of their night's rest and feeling as sleepy as could be, but Damon and Pythias had jumped up saucily on their mother's back and were carefully balancing themselves there. They were a pretty pair, for Damon was jet black and Pythias creamy white. Dolly pulled out her small purse at once and paid for them on the spot. From that time on a new life began for Damon and Pythias.

On rainy days they were taken indoors, where they delighted to patter around, and when Damon discovered a rag carpet mat he tried to kick it up as he did the sand, and looked at it with an astonished air because the kicks from his tiny flying claws, or the taps from his bill, failed to root out food. Soon they both began to recognize their names, and would hurry to their mistress when she called. When Dolly went on short walks around the farm it came to be understood that the two chickens would follow her about, and they became so affectionate that they could not bear to have her out of their sight. When she shook her forefinger at them and said: "No, you can't go," they seemed to understand her words, and gave dismal "peeps" that lengthened into loud squawks if they were left alone.

Friendly as they had always been, they grew jealous after a time, and would stand with the tips of their bills together, absolutely rigid for half a minute, glaring fiercely at each other. The quarrels never lasted long, for soon a buzzing fly would pass overhead, which one chicken was sure to hop into the air and catch, while the other would coolly walk away. This seems to be the chicken fashion of ending quarrels.

As the days went by Damon and Pythias grew too plump for the box of cotton wool in which they slept, and a large cage, with a perch in it for each, was prepared for them. Regularly at 6 o'clock the chickens walked into the house and went to rest, each on his own perch.

When the summer was over and Dolly returned to her city home she carried her strange pets with her in their cozy cage, and they soon became used to their new life.—New York Tribune.