THE USES OF TIN FOIL

MADE IN ATTRACTIVE FORMS FOR VARIOUS PURPOSES.

American Inventor's Machine Which Performed Wonders-Ornamental Designs Win Favor.

It used to be that tin foll was beaten. out, as gold leaf has always been and is to-day; but about 50 years ago an Amerions invented a machine for rolling out tin foil that revolutionized the fin foll industry, says the New York Sun.

The heaten out tin foil has been made and used for many years for wrapping up various things which it was desired to preserve in their original condition. The new process of manufacture, by materially reducing the cost of its production, widely extended the use of tin foil for these purposes of utility.

A little later the American who invented the (in foil rolling machine inwented a machine for embossing tin foil, by means of which any desired design or pattern could be used, and processes were designed for coloring the surface of tin foil in any desired color. So that there came to be produced tin foils that were covered all over with delicately embossed flowers and vines and stars and diamonds and stripes and so on in a great variety of patterns and designs, and foils embossed in imitation of silk and other fabrics, and these prettily embossed foils were colored in many different delicate and brilliant colors, and made of one color on one side and another color on the other.

The embossed folls were made also with gold and with silver surfaces, as were likewise foils smooth surfaced. In short, tin folks had now come to be a thing of beauty as well as utility. One who had never seen any but the plain smooth tin foil could have but little noition, in fact, of the beauty in which tin foll is now produced.

And with tin foll produced in such forms it came to be used not only for purposes of utility, but for various uses in which it would add to the attractivemess of the goods around which it was wrapped. The thinnest of the colored and ornamental foils are called tissue foils, and they are scarcely if any thicker than tissue paper. Tin foils are rolled in an almost endless variety of thickmesses, foils ranging from 1,000 square inches to 13,000 square inches being

made from one pound of metal. Besides being used in the wrapping of various sorts of products sold in packages, tip foil is used for wrapping around bottle necks, and over the heads of some. It is used for wrapping chocolate and cheese and candy and chewing gum

and for cigars and tobacco. There is an old story of how tin foll Thelped to make one man's fortune, that of a man well known in this day and still well remembered, a tobacconist and a tobacco manufacturer. As the story wruns, Gen. Scott, just then about to depart to take command of the United States troops engaged in the war with Mexico, came to this tobacconist and asked if there were not some way in which tobacco could be put up for him so that it would not dry out and deteriorate in the country to which he was go-

The tobacco man hit upon the plan of wrapping the general's tobacco in tia foil wrappers. This plan worked beau-Tifully, and there sprung up for tobacco wrapped in tin foil a great demand which the tobacco man was prompt to supply. A felicitous and attractive mame for the tobacco thus put up, a mame long familiar, helped to increase The demand for it, and a fortune followed. -

Chandeliers are wrapped up in tin feil, in fact there is a special foil in long strips made for this use. Soap is wrapped in tin foll. Violet colored and prettily embossed tin foil is used for wrapping up the stems of bunches of wielets, and tin foil of various sorts is wrapped around the stems of bouquets of other flowers. Tin foil finds ornsmental uses at Christmas time.

A sort of tin foil, which, however, is rot called foil, but cap metal, is extentively used in the manufacture of bottle caps, of which there were now used In this country alone hundreds of milhons annually, such caps being now 1-ut on many bottled products to give a handsome finish to the package, in keeping with the general improvement now prevailing in putting up all such packages. Bottle caps, which are of ancient use, were once all spun by band; and in fact the finest and heavsest bottle caps are still made in the same manner, but the very great majority of the enormously greater numher of bottle caps now used are ma-

He Was Batisfied.

A North Carolina lawyer was trying a case before a jury, being counsel for the prisoner a man charged with making "mountain dew." The judge was very hard on him and the jury brought in a verdict of guilty. The lawyer moved for a new trial. The judge demied the motion and remarked: "The court and the jury think the prisoner & knave and a fool." After a moment's filence the lawyer answered. "The prisoner wishes me to say that he is perfectly satisfied he has been tried by a court and a jury of his peers."

Bearded Women

Two German doctors have been looking into the question of bearded women and they have discovered that out of every 1,000 sane females, 290 are bearded. Of these 230 have only a slight down, 40 have a very visible beard and ten are unmistakably adorned with this hirsule appendage. Out of 1.000 insane women examined 481 had slight beards, while 56 had beards weil grown.—Raynold's Newspaper.

LAND OF WONDROUS CAVES

Subterranean Hiding Places of Former ---- Outlaws of the Indian Territory.

Jim Friday, a desperate negro outlaw, was the terror of the Arbuckle mountains for many years, but was finally hanged at Fort Smith. Ark., in 1882, for the murder of a man and his wife near Fort Arbuckle, relates the Kansas City Journal.

He first murdered the husband and carried the wife away into a cave near by and here forced her to remain until he grew tired of her and then murdered her. The bones of both victims were taken in a box before Judge Parher and a jury, and when Friday saw it was no use denying the charge he confessed and told of several other deeds still more horrible. United States Marshal Mershon, who was known as the "Sleuth" of the Arbuckles, captured Friday in the cave, and it is said that Mershon knew of other caves in that locality more wonderful than this one.

It appears that outlaws would live in these caves for months at a time and the officers were powerless to dislodge them. A man living in Davis says that he knows of caves within ten miles of Davis where cattle have been slaughtered and their heads and horns are still there as evidence, in a perfect state of preservation. There are nooks and corners down there, he says, where an army of men could hide themselves, and unless one knew just where to look he would never find an entrance.

It is believed there is a large stream of water running through all of the caves in that vicinity. A ranchman says that Honey creek comes through the caves and offers proof by showing the large springs which gush out of the mountain side just above Turner's falls on Honey creek. These falls are widely known as the "Little Niagara" of the Chickasaw Nation, and are visited by thousands of people every year. The spring is believed to be the king cure-all and Indians have made it their

health resort for many years. Thomas Grant, a cattleman and farmer, who lives within a mile of the old fort, says caves abound in that part of the country, and mentious one midway between Elk and Foreman, small inland towns, that can be seen from the wagon road. It is on the very top of a big hill in the prairie and a few feet down it widens out into one vast cavern. From all appearances it must be a wonderful place. This cave is known as "dead man's hole," from the fact that some years ago the remains of a man were found there who had been murdered. The cave is well ventilated and perfectly dry as far as it has been ex-

ATTRACTIVE VOCAL TALENT

Boy Who Could Imitate Quarreling Cats Resped a Harvest

I had been taking a horseback ride through the southern part of Missouri, says a writer in Lippincott's, and one night, finding myself in a very sparsely settled district. I was forced to continue in the saddle until midinght before I saw the dark shadows of a village at the end of the road. Just outside this village I came to a miserable little rottage where a light still burned in the window; I knocked on the door to inquire for a place to put up for

"Is that you, Tad?" same a grutt

voice from within. "No, said I. "Open the door a minute.

I want to ask you something." The bolt was drawn, and a man attired in a cotton undershirt and overalls looked out sleepily into the dark-

"I thought you was my boy. Tad." be explained, rubbing his eyes, "and, snip my ears! here he is now!"

A barefoot youth came panting out of the shadow with his arms full of shoes of various sizes and colors. "Get any!" asked the man. expectantly.

"Yassir." replied the boy in a filial tone-"seven of 'em to-night and two of 'em is a pair."

"Good!" the man said, and then he turned to me with the manner of one who thinks an explanation would be polite. "You see, Tad can make a uoise that sounds louder and has more worry to it and sounds more natural like a tom cat than any cat in this country can make. So he just goes into the village and yells under windows about this time in the fall. Then he picks up what is flung out."

"And you get shoes enough for winter." I finished.

"Stranger." said the man, solemnly,

"I can see you ain't a fool."

World's Coal and Iron. It is stated that in a scientific journal of recent date, that the United States, Great Britain and Germany together produce approximately 80 per cent, of the coal and from of the world, and if the industrial importance of the materials be considered the supreme test these countries would necessarily be adjudged the leading mining countries of to-day. Their pre-eminence would probably be even more marked f complete statistics covering the profuction of cement, clay, stone and other non metallic resources were availa-

Paradise of Epicures.

Paris still maintains her reputation an the paradise of the epicure. One iay in January a wealthy Hungarian ordered strawberries at a fashionable restaurant. He and a friend ate four baskets, which each held about 15 herries. The bill was £20. A few days later the bill for wines at another smart Parisian restaurant for a party of a dozen diners came to £240. The lates of these precious drinkables varied between 1805 and 1834.

BLUEBERRY CULTURE

MOVEL INDUSTRY BUILT UP BY MAINE CANNERS.

Ground Cleared for the Purpose by Burning Off the Barrens -Interesting Particulars.

In grazing sections throughout the west an old and well-known custom is that of burning the dry grass to improve the next year's pasture. Formerly the fires were allowed to spread and burn themselves out at will, and the practice resulted in great forest destruction. Happily for the forests, the burning is now more carefully done when it is done at all, and on the whole the custom is falling into disuse. In Maine a practice of burning exists which is local to that state, is novel in character, and has nothing to do with grazing. The burning is to assist blueberry culture by causing the bushes to sprout vigorously and clearing the ground of other

About 1870 a factory for canning blueherries was located in Maine, and as it prospered it was followed by others. In 1885 and again in 1899 similar factories and canning companies were established, until to-day blueberry ralsing and canning is an important industry in that state. To supply the increasing demand blueberry bush areas have been constantly enlarged, until now "blueberry barrens" cover some 2,600 acres in Hancock and Washington counties.

A century ago these "blueberry barrens" were, for the most part, covered by a dense forest, chiefly of white pine and spruce. The forest was thinned by lumbering the pine, and the increased amount of light permitted new kinds of undergrowth to get a footbold. Fire. as almost invariably happens, followed. the lumbering, the rest of the original stand was destroyed, and the undergrowth was still further altered, a great variety of valueless underbrush and weeds taking possession of the ground, together with a stand of birch. popple, red maple, and other hardwood seedlings. As the fires continued to occur this hardwood growth became scrubby and was finally entirely eliminsted, and the ground became a true barren, covered with a growth of blueberry bushes, sweet fern, brake, bunchberry, goldenrod and sheep laurel. With the ground in such condition its best use is for blueberry culture.

The blueberry owner divides his land Into three portions; each year he picks the berries from one portion, burns another portion, and allows the third to rest. The first year after the land is burned over the blueberry bushes sprout and grow a few inches. The second year they yield a full crop of berries. The third season the crop is small and of little value, and the bushes reach a condition in which they can be burned most effectively

Under this system of blueberry culture the land does not "run out" with constant use for the same crop. Where the burning has been properly done. the same tracts have grown blueberries continuously for 50 years without showing any decrease in the yield. But if the land is burned over at the wrong time of the year, or the roots of the bushes are badly injured by fire, many years are required to restore the productive capacity of the tract. The best time for burning is when the melting snow leaves the ground wet and the tops of the bushes dry. After May 10 burning is very injurious, unless the

spring is exceptionally late. The canning companies own most of the blueberry lands in Maine, except some small 25 or 50-acre private holdings. Pickers from company lands get three cen's a quart, while private owners receive about six to eight cents a quart for their berries. The picking season lasts six weeks. A rapid nicker makes from four to eight dollars a day; if he has a large family to help him it is not unusual for him to make \$600 or \$800 in the six weeks. This makes the industry very popular among the pickers, and increases the danger that forest fires will be set or permitted to burn through good timber in order to increase the extent of blueberry bar-

In addition to the 2,600 acres of present barrens, there are in Hancock county over 5,000 acres which have been reduced almost to a barren condition. Here, if necessary, this industry could be profitably extended. But when lumbering and fires have not materially depleted the forests, the land should be continued under forest cover and the stand improved. The opportunity is ample for a proper extension of blueberry culture without invading valuable forest lands, which should be protected from fire. The wisest policy is to utilize the present blueberry barren areas to the fullest extent, and not by encroach further upon the forests, except as the growth of the industry makes it profitable to take old cut-over lands for this purpose.

Bedclothes on Russian Sleeping Cars. The old-fashioned Russian travels with his own gear, and makes himself comfortable according to his own ideas. and they are by no means narrow. A place to sleep on is provided, the rest he brings. On the Russian sleeping cars, those who have not their own bedclothes and who wish to undress and go to hed in the American fashion can have all that is requisite for 50 cents. The porter, on demand, brings a linen sack, whose seal he cuts in your presence with considerable ceremony, and from which he produces a pillow, blankets and sheets of beautiful fine linen.-Scrib-

High-Priced Stamps. Stamps costing \$19,500 were recently required for an agreement between two London railway companies.

FLIFE HANGS ON MINUTES.

Chances for Recovery in Surgical Operations of Long Duration Are Small

Time saving is one of the most important considerations in all surgery. Any major operation lasting more than an hour and a half entails an additional risk: in operations of long duration the chances of recovery are comparatively small, says McClure's Magazine. This is due to shock, to the cumulative effect of the anaesthetic, to loss of blood and to lowering of the patient's temperature by the exposure of internal areas to the air. Because of this the best surgeons work with a mechanical precision and economy of movement. Everything is ready before the operation commences: an assistant is at hand to look after the details of actual work, such as holding back the edges of the incision, adjusting the ligatures, etc.; an expert in anaesthesia handles the chloroform and watches the subject's pulse and respiration, in order that the operator's time may be devoted wholly to one point, and a deft nurse, adent in the use of every instrument, needle and chemical preparation, is at the surgeon's cloow, ready to hand out at a word-sometimes before the word-the shining implements already filed in the order of their probable use.

Two visiting surgeons at one of the New York hospitals got a markedly varying percentage of mortality in a common abdominal operation.

"What is the difference between the two operators?" I asked of one of the house staff in attendance. "About 20 minutes." he said, suc-

KANSAS VERSUS NEW YORK

cinctly.

A Challenge in Porcine Literature Hurled at the East by the Boundless West.

The article from a New York paper which is referred to below has been going the rounds of the Kansas papers, but the St. Johns News has been the first to attempt to do Kansas justice. That paper says:

"The New York papers are chronicling the startling news that a hog. after being buried in a snowdrift for four days, was rescued and is getting over its experience in fine shape. That may seem; like a pretty big hog story to a New Yorker, but to an old Kansan such little things are passed unnoticed. Why, we can beat that hog story to death, and not half try, and it won't be a lie, either. During the big blizzard of January, 1886, we had a hog that was buried in a snowdrift just 21 days before she was discovered, and when removed from the drift she of course was ready for her corn, but was still in good squealing condition. The same year our neighbor on the north, W. H. Campbell, had a sow that was cought but during the same blizzard, and although not entirely buried in the snow, was without food for just 28 days before the owner found her. If New Yorkers wish to relate hog stories, they had better come to

ON THE FUTURE OF OZONE

Kansas for data."

Chief Application Thus Far Has Been in Sterilization of Air, Water, Foods, Etc.

-Although ozone is a substance which is present in the air in relatively minute quantity, yet it is possible that its future in metallurgy, both dry and wet, may be greater than would be commonly believed at present, says the Engineering and Mining Journal. It is interesting to note the many methods for generating ozone, among which may be mentioned the use of heat, the use of chemicals (barium dioxide, potassium permanganate, etc.), the action of gradual oxidation, the action of electrolysis, the influence of the silent electric discharge, and even the action of the newer radio-active substances. The chief application of ozone thus far has been in the direction of sterilization of ail, water, foods, etc., in the oxidation and reduction of coloring substances. perfumes and the like; but if the eventual result should be the production of cheap ozone, who can tell what it may not do for metallurgy?

The necessity of noting the influence of the humidity in the atmosphere has heen well shown by James Gayley's notable experiments on dry air blast. It certainly will be interesting to observe what the experimenter and the practitioner will do with ozone in metallurgy.

Long Distances in Florida. We often laugh at the ignorance of Europeans as to distances in this country. We sometimes display as much ignorance ourselves when we speak of distances in Florida and Texas. A land trip from one end of Florida to the other is as long as from the great lakes to the gulf. A citizen of Maine who makes up his mind to go south may pass through Maine, New Hampshire, Massachusetts, Connecticut, New York. New Jersey, Pennsylvania, Delaware, Maryland, the District of Columbia and far into Virginia without taking any longer ride than he would take in going from one Florida town to another. And yet some people complain of the slow time made by Florida trains. They need to take a geography with them.—Boston Globe.

Greater Than Niagara.

The great Victoria falls, on the Zamhesi river, are estimated by British engineers to represent 25.000,000-horse power, or five times the power of Niagara, with some diminution in the dry season. It is proposed to develop the power for irrigating Rhodesia, operating the mines on the Rand, etc. The spray, thrown 500 feet high and scattered as fine rain, is expected to interfere with high-tension electrical trans-

WHERE PRUNES COME FROM

Pormerly from Foreign Countries, But Now Many Are Grown in California.

In the United States 100,000,000 pounds of prunes are eaten yearly. Prior to 1886 the aupply came almost wholly from France and the Danubian provinces and sold under the designation of "French", or "Turkish" prunes. In the year referred to prunes of American growth appeared on the market and with each succeeding year the supply has increased until the importation of foreign fruit has been reduced to extremely small proportions. Much the larger portion of the prune supply is from the southern part of California, where climatic peculiarities are extremely favorable for its production. In Santa Ciara county alone there are 3,700,000 trees growing on 37,000 acres, 100 to the acre. The quantity of prunes somewhat! exceeds 110,000,000 pounds-more than enough for the requirements of the whole country, but the excess, with that raised in other localities, is needed to supply the export demand from Great Britain, Germany and France. The first. plum trees planted 40 years ago in Callfornia were shoots from the "Petite"; and "Epineuse" varieties from France. The original varieties have been greatly improved upon

After the planting, which is usually. done in the rainy season, the shoots are cut down to a uniform height of about two feet. In the second year the trees are pruned, from three to five branches being left, and are again promed in the third and fourth years. Twice during the spring and summer the soil is cuitivated. In September the fruit ripens and is gathered by spreading sheets under the trees and shaking the branches. The green fruit is taken to the warehouse, where it is graded in size and passed through a boiling bot liquid, in which process it is cleaned and the outer skin softened. It is then spread out in trays eight feet by three feet in size and expused to the heat of the sun for three to eight days, depending upon weather conditions.

Ten thousand trays of fruit spread out in one upbroken tract may be seen in Santa Clara in the drying season. When sufficiently cured the prunes are stored in separate bins and there allowed to "sweat," this process taking from ten

TREES BUT LITTLE KNOWN Many in Tropical Forests Which Are Too Dense to Be Ex-

plored.

According to an expert in the bureau of forestry of the department of agriculture there is, comparatively speaking, little known concerning tropical trees, and this, despite the fact that naturalists and botanists are constantly exploring the regions near the equator. Indeéd, there must be many hundreds of varieties that have been little known and that are unidentified by name.

This curious fact is due to the exceptional conditions of the tropical forests. In temperate zones forests are fairly open, and, generally speaking, include trees of only a few varieties. Thus there are oak forests, hickory forests, etc., but rarely any forests where more than three or four kinds of trees exist in any num-

In the tropics, on the other hand, the case is exactly the opposite. Forests composed of one variety of tree. or even of only three or four kinds, are unknown. So many different sorts of trees grow close together that fre quently more than 100 varieties may be counted within a short radius. Moreover, all these grow together in great confusion. They tower to extraordinary heights, each tree, it would seem, striving its best to reach the sunlight. Consequently the trunks are are extremely long and thin, because each tree is reaching to get higher than its neighbors, in order to escape the twilight of the primeval, tropical forest. Leaves and branches are so confused that in many forests one can see neither sky nor sunlight for miles, the crowns of the trees interlacing and forming a thick, impenetrable roof.

To add to the confusion great vines and creepers and hundreds of varieties of vegetable parasites overgrow the

It is said that it is well-nigh impossible to cut down any one tree for purposes of examination, for the reason that the forest is so dense that there is insufficient room for the tree to fall. even after its trunk has been cut through. It would be necessary to clear a great space, and that is impracticable from the standpoint of the naturalist or botanist. Hence, the world is still in comparative ignorance of the wonders of the tropical forest.

Food Heating Without Fire. At various recent food exhibitions there has been on show an invention for heating food without fire, and without the usual troublesome accessories of pots and pans. An innocent looking tomato soup tin has four holes punched in at one end, and immediately that is done, the whole thing begins to fizz and boil. It is left for five minutes, until the heating materials evaporate, turned upside down, and left for another five minutes; then it is opened in the ordinary way, when thoroughly cooked soup can be poured out. The name is calorit, and the food, which is prepared by some well-known firm, is of the first quality. About a dozen varieties of soup can be had, and the same number of entrees besides coffee, cocoa and chocolate.-Chicago Tribune.

Big Auto Trade.

It is estimated that the output of automobiles for the current year will be 20,-000, of a total value of \$30,000,000. Accessories made will reach \$5,000.000.

TO DESTROY WILD CARROTS

Legislation in Massachusetts for the Extermination of Noxious Plants.

A bill is pending in the Massachusetts: legislature to prevent the spread of wild carrots or paranips. It provides that every person or corporation owning, lands within the state shall cut down or otherwise destroy all wild carrots grow-, ing thereon, or growing in the highways adjoining the land, on pain of a fine for every day of neglect. This, says the Portland (Me.) Press, is a matter which should receive attention in other states. The weed in question, is comparatively new in these parts. It is but a few years since its appearance in any quantity was noticed, but already it has spread through many parts of the state and infests the mowing fields and roadsides far and wide. What is everybody's business is nobody's. While many farmers keep their land free from the pest to a great extent, their efforts are of little use so long as careless and lazy neighbors. allow the weeds to flourish and go to seed unrestrained, and so long as the highways remain the nursery and breeding ground for them. It is an easy plant to eradicate, if the proper measures are taken, as mowing or pulling up by the roots before it goes to seed. If allowed to mature, it bears a feathery tuft of meed and these, protruding above the snow, are whipped by the wind and blown in every direction to spring up the next summer. The only way to get rid of it is by concerted action, and the only way to secure such action appears to be by some such method as proposed in Massachusetts. It. should be the duty of the towns to keep the public places clear of noxious plants, and it should be the duty of private land owners to do the same in respect to their premises.

GIVES FRUIT TO HOSPITALS

As Result of Vivid Dream New York Man Donates Many Oranges.

The commissary department of one of New York's largest hospitals, primarily devoted to caring for the sick poor, receives monthly a contribution of a crate of the best oranges the market The or the Lift of a tran and the superintendent, who knows the circumstances that led to the gift, always

refers to them as the dream oranges. A couple of years ago the denor of the fruit had typhold fever. Like all victims of this disease, he suffered an unquenchable thirst, to which was added the torment of a persistent and ever recurring dream. Always he seemed to stand on the shore of a river in which ran floods of sparkling lemonade, while hundreds of oranges cut in half and covered with powdered ica floated on its surface.

Hour after hour he would stand on its brink, forever unable to obtain a drop of the liquid or capture one of the oranges. It took two trained nurses to restrain his ardor when he started out after the fruit, and he kept them lossy until his temperature stopped soaring, and he was once again normal.

When he was convalencent he told the hurse his vivid dream and of his intention to send a monthly offering to some hospital where the demand for dainties exceeded the supply. She suggested the institution that is now the object of his beneficence, and few of the patients enjoying the very real yetow spheres guess that they are cating "the stuff that dreams are made of."

TALE OF A BURGLAR ALARM

Worked All Right, But Didn't Prevent the Entrance of the

Mr Hillyer was a heavy sleeper He was a man, also, with a chronic fear of burglars. It was these two things that led bim to have the window of his sleeping-room equipped with a burglar alarm of the latest and most approved. description, relates Youth's Compan-

A few mornings after the device had been installed be came down to breakfact with a grin on his face. "I had a funny dream last night." he

said. "I dreamed that a burglar raised my window and the alarm went off, but he didn't seem to mind it. He rummaged the bureau drawers, found my watch and pocketbook, and slipped out the way he came in. By the way," he added. "I forgot to bring down my watch and pocketbook. I'll go and get them." He went upstairs and returned in a

moment with an entirely different look on his face. The watch and pocketbook were gone. It had not been a dream.

Sickness from Worry. A famous physician on being asked.

recently what is the chief cause of III. health, replied: "Thinking and talking about it all the time. This ceaseless introspection in which so many of the rising generation of the nervous folk indulge is certainly wearing them out. When they are not worrying as to whether they sleep too much or too little, they are fidgeting over the amount of food they take or the quantity of exercise necessary for health. In short, they never give themselves a moment's

Can't Pronounce It. Near Paris is a village the name of which no European can pronounce. The name is "Ws." The Frenchmen, by way of compromise, pronounce it. "Us," but this is not absolutely cor-

Limit of Effeminacy. "Is young Sissykins as effeminate as

people say he is?" "Is he? Say, he sits on the floor to put on his stockings in the macuing."-Cleveland Leader.

L'ABEILLE DE LA NOUVELLE-ORLÉANS