

Iowa State Bystander

BYSTANDER PUB. CO., Publishers.
DES MOINES, IOWA
PHOTOGRAPHS FROM ROCKET

German Military Invention for Getting Accurate Information About the Enemy.

It takes an active imagination surely to see any sympathetic relationship between a skyrocket and a camera—so boisterous is the one, so delicate the other; but the feat was not beyond the powers of Alfred Maul, who has linked the one to the other in a happy co-partnership.

The rocket-camera, as it might be called, was designed for military purposes and was demonstrated before the German military authorities with such success that it has been officially accepted. The problem was not an easy one, says the Scientific American, and the inventor claims to have been trying to yoke up these two very dissimilar things for some twelve years, for it has taken that time to bring the device to its present undoubted perfection.

The apparatus is described as consisting of a camera held in a pointed hood, at the top of which is a pneumatic electric contact, and a holder which contains a parachute and the upper part of the rocket. On the top of the holder is a gyroscope which serves to maintain the camera in the desired position for the snapshot. The stick of the rocket is about 15 feet in length, and it is fitted at its lower end with wooden feathers. The whole rocket is 24 feet in length and weighs about 80 pounds. The camera is capable of taking 6x10-inch plates.

For giving the proper direction in firing the rocket is mounted in a special form of "gun carriage," which is mounted at the apex of a stout triangular base, and is capable of being elevated through any range from the horizontal to 90 degrees. When the rocket is fired electrically (from a distance of about 200 yards) the gyroscope is started, and in about eight seconds the rocket with the camera reaches a height of about 2,600 feet.

When the rocket is turning at the highest point of its trajectory, the camera being held in the proper direction, covering the field of view, by the gyroscope, the camera shutter is released and the photograph is taken. At the same moment a parachute which forms part of the apparatus in the head of the rocket is set free and the rocket divides into two parts.

Cost Almost Too High.

Professor Metchnikoff (sneaky name to pronounce, but we are never sure about the spelling), in his latest book, asserts that with sour milk and its by-products as the chief articles of diet one may defy time and the undertaker and easily live to be two hundred years of age or thereabouts.

A friend of ours, who has given the Metchnikoff bill a fare a month's trial, says that, while two hundred years of life on earth may sound like an attractive proposition, if he has got to stick to the sour milk dietary as a steady thing he would be perfectly willing to die at the end of the first hundred.—Judge.

Annoying Speed Limit.

An old man nearly eighty years old walked ten miles from his home to an adjoining town. When he reached his destination he was greeted with some astonishment by an acquaintance.

"You walked all the way!" the latter exclaimed. "How did you get along?"

"Oh, first rate!" the old man replied, genially. "That is, I did till I came to that sign out there, 'Slow down to fifteen miles an hour.' That kept me back some."—Youth's Companion.

Art of Not Hearing.

A kind of discreet deafness saves one from many insults and much blame, therefore the art of not hearing should be learned by all. It is quite as important to domestic happiness as a cultivated ear, for which so much money and time are expended. There are so many things which it is painful to hear, many which we ought not to hear, very many which, if heard, would disturb the temper, corrupt simplicity and modesty, detract from contentment and happiness, that everyone should be educated to take in or shut out sounds, according to his pleasure.

Never Satisfied.

Hark, O ye that rail at the clinging skirt, to this from Pearson's Magazine of January, 1866:

"The present shape of the hoop skirt is detestable. If the wind blows, the skirt swings to one side, exposing the person; even in stepping up a curbstone the same thing happens. The shape in fashion a year or two ago was much more modest. Why not return to it?"—Franklin P. Adams in the Metropolitan Magazine.

Supperman.

The brand new curate who attempted to press other people into church work on a very slight acquaintance was indignant because the agreeable-looking man whom he had asked to make a house-to-house canvass of one corner of the parish and urge every man and woman and child to abstain from eating meat had refused to comply.

"Oh, well," said the old clergyman, drily, "you mustn't expect too much of folks. That man is a good Christian, I guess, but he is also a butcher."

The Habitual Husband.

Bridegroom-for-the-Fourth-Time—I've just got married again, old chap. The friend—Congratulations! But I say, old man, I wish you would invite me to one of your weddings some time, will you?—Sydney Bulletin.

His Mistake.

"We want someone who knows all about a typewriter."

"I know a whole lot about a number of them. Perhaps I know something about the one you have in mind. If you'll just tell me her name."

WOMEN RANK HIGH

Butcher Report Tells Their Standing in Educational Work.

In Some States They Appear to Have Almost a Monopoly of the Higher Positions in the Public School System.

Washington—How women have advanced from the educational ranks to the higher administrative positions in the public schools is revealed in figures just compiled by the United States bureau of education. Four states—Colorado, Idaho, Washington and Wyoming—have women at the head of their state school systems, and there are now 495 women county superintendents in the United States. Nearly double the number of ten years ago.

In some states women appear to have almost a monopoly of the higher positions in the public school system. Wyoming has a woman state superintendent; the deputy state superintendent is a woman, and of the fourteen counties in the state, all except one are directed educationally by women. In Montana, where there are thirty counties, only one man is reported as holding the position of county superintendent.

The increase in the number of women county superintendents is most conspicuous in the west, but is not confined to that section. New York reports forty-two women "district superintendents," as against twelve "school commissioners" in 1900. Other states showing marked increases are: Iowa, from 13 in 1900, to 44 in 1912; Kansas, from 26 in 1900, to 59 in 1912; Nebraska, from 10 to 42 in the same period; North Dakota, from 10 to 24; Oklahoma, from 14. In only two states is a decrease reported; Tennessee had 9 in 1900 and only 5 in 1912, and Utah has one less than a decade ago.

With the advancement of women in the administrative branch of education has come a demand for women on local school boards, and this demand has been recognized in many communities. The following cities of 100,000 population or more report one more woman on the school board New York, Chicago, Cleveland, San Francisco, Milwaukee, Washington, Indianapolis, Rochester, St. Paul, Denver, Columbus, Worcester, Grand Rapids, Cambridge and Fall River. Many smaller municipalities have adopted the idea. In commenting on the facts the head of the bureau of education says:

"The important place assigned to women in American education has become so usual as to excite little comment in this country; yet American conditions in this respect are the reverse of those of most nations. It is probably safe to say that in no other country in the world are there as many women proportionally as in the United States; in fact men teachers greatly outnumber the women in most European countries."

ASCERTAINING THE COST.

Efforts are being made by the navy department to ascertain the cost of building the two fuel ships authorized by the last naval appropriation act. The cost not to exceed \$1,140,000 each, that they shall be built at navy yards, and that one of them shall be built at a navy yard on the Pacific coast, leaving it discretionary with the navy department at what yard the other shall be constructed.

With a view to ascertaining the cost of construction at the different navy yards tentative plans have been sent out. The estimate from the New York navy yard is greater than that from the Mare Island navy yard, California, and the navy department may decide to build both at the latter yard. However, as the estimates were not based on sufficiently developed designs, it is expected that the supplemental bids will result in a decision to build one of the vessels at New York and the other at Mare Island. The vessels will be tank ships, in view of the increasing use of oil fuel in ships of war.

The collier Jupiter, authorized in 1908, and in which is being installed for experimental purposes a system of electric-drive propelling machinery, is under construction at Mare Island, and is a little over 82 per cent completed. This yard also has just commenced the construction of two gunboats, the Monocacy and Palos, designed for use in Chinese rivers.

PREDICTS BIG BATTLESHIPS.

It is predicted by Richard H. Robinson, the naval constructor, who designed the new battleship Pennsylvania, that the battleships built ten years from now will have such a draft and such a length as to prohibit their entering any American port save that of New York, and but few of any other country. Warships ten years hence, he says, will be so large that they will be barely able to squeeze through the locks of the Panama canal; that is, they will be little less than 1,000 feet long, about 106 feet beam, have a draft of about 36 feet and a displacement of approximately 55,000 tons. New York harbor is the only harbor in the United States that would admit a ship of these great dimensions. There is not a drydock, not a coaling station, nor a yard to care for a ship of this size. It means that harbors not only will have to be deepened and further dredged, but that naval stations will have to be increased in size.

A Side Issue.

Woman Suffrage Advocate (to politician)—I maintain that woman has always been the prime factor in this world. Politician (blandly)—Oh, I don't know. In the very beginning woman was only a side issue.—Tit-Bits.

Necessary Condition.

"Now that the police are after you to testify against us in this graft case, you beat it."

"All right, but I must have money for my running expenses."

NEW SOCIAL SET.

Washington's social season this year promises to be particularly interesting. Though the inaugural ball was abandoned at the suggestion of Governor Wilson, there will be plenty of social functions later.

Future social affairs are unconsciously shaping themselves to the philanthropic and artistic tendencies of the Misses Wilson, and from all over the country are coming women connected with official life who will add much to the interest of parties, balls and receptions. Society is preparing to set up a new intellectual standard in its tea-drinking and frivolities.

Miss Elsie Hill, daughter of Representative Hill, of Connecticut, is one of the young women now in Washington who will be more or less prominent in the life of the coming season. Another attractive young woman in Washington society is Miss Lillian Gronna, daughter of Senator and Mrs. A. J. Gronna, of North Dakota, whose engagement has just been announced to Dr. Oscar N. Begtrup, of that state. The wedding will take place in Washington.

Mrs. William P. Jackson, wife of the new senator from Maryland, will entertain extensively, they having leased a handsome residence in the city.

One of the most charming and popular hostesses will be Mrs. Edwin S. Underhill, wife of the new congressman from New York. She has a wide circle of acquaintances and is a woman of attractive personality.

Miss Dorothy Shuey, daughter of Mr. and Mrs. Theodore Shuey, of Washington, D. C., is one of the "buds" of the season. She has been educated abroad and has just returned after spending nine years in schools in Switzerland and France. She is very talented and an accomplished musician and linguist. An interesting girl of the southern colony in Washington is Miss Shirley Curry, who is spending the season in Washington with her grandfather, Senator Bacon, of Georgia. This is her first season at the national capital, and she is already a great favorite among the younger set.

AN INTERESTING FLAG.

The flag which led indirectly but none the less certainly to the capture of John Wilkes Booth is now one of the main objects of interest in the treasury building. For many years this famous flag occupied a place on the wall of the northwest corridor of the treasury and divided honors with the money vaults as an object of popular interest. It was for many years about the first thing guides pointed out to visitors. Then the flag was loaned to Capt. O. H. Oldroyd and for a long time had a prominent place in the museum of Lincoln relics. Not long ago it was reclaimed by the treasury and hangs once more in that grim and classic building.

It was in the knotted fringe of this old flag that one of Booth's spurs caught when he leaped from Lincoln's box at Ford's theater on the night of April 14, 1865, after having mortally wounded the president and stabbed Maj. Rathbone. Had not the spur caught, Booth's leg would in all probability not have been fractured or injured and his capture would perhaps have been very much more difficult.

"TAMBO" IN CONGRESS.

One of the greatest pieces of minstrel mimicry ever seen or heard comes annually from Representative Hefflin of Alabama, who is known as the typical southern orator of the national legislature.

Toward the end of the sessions, when the house and senate are sitting up nights to get rid of business and to wait for presidential signatures to important bills, the house demands that Mr. Hefflin give his camp meeting sermon.

It lasts for three-quarters of an hour and never fails to convulse the members as well as the watchers in the galleries. It never appears in the congressional Record, although once the stenographers took half of it down before a motion was presented to dispense with the services of those hard-working men for the occasion.

Plantagenet's Long Pedigree.

The longest authentic pedigree on record was probably that of the late Gen. Plantagenet Harrison, which is inserted in his "History of Yorkshire." It begins with Odin, King of Asgardia, 76 B. C., and among the general ancestors are numbered the Emperors Claudius, Diocletian and Maximilian, Gondergustus, King of the Vandals, our own Edward III and many lesser known monarchs.

General Harrison, who died only a few years ago, always claimed to be a legitimate prince of the blood royal of England and Scandinavia. He was known among his friends as the "Last of the Plantagenets," a title which fitted him well as he stood 6 feet 4 inches in his socks and looked every inch a king.—London Chronicle.

Raising Flowers Indoors.

Bulbs have the great advantage of being clean to keep in the house, no soil being required. Fill the pots to within one inch of the top with pebbles, set the bulbs in and cover the whole with water. Put away in a dark, cool place for two or three weeks, but take care to keep the water at the same height all the time. Then bring them out and give them as much light and air as possible, changing the water every eight days by draining it off, and replacing it by water at the same temperature. The question of keeping the water at a moderate temperature all the time is a most important one.

An Exception.

"Do you think only of me?" murmured the bride. "Tell me that you think only of me."

"It's this way," explained the groom, gently. "Now and then I have to think of the furnace, my dear."

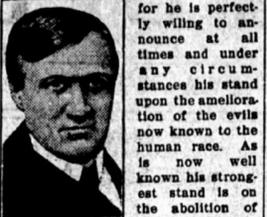
Just as Dangerous.

"Let's send the car a bomb concealed in a plum pudding."

"Why not merely send him a plum pudding?" suggested the other plotter. "If he eats it our work is done and we run no risks."

ARIZONA GOVERNOR AGAINST DEATH PENALTY

Humanitarian Ideas of Governor Hunt of Arizona are not to be hid under a bushel, for he is perfectly willing to announce at all times and under any circumstances his stand upon the amelioration of the evils now known to the human race. As is now well known his strongest stand is on the abolition of capital punishment.



His ideas on the subject were presented by himself the other night at Phoenix, in a debate before the church society of Trinity Episcopal parish. The governor and Editor C. H. Akers of the Gazette spoke in abolition of the death penalty, while Judge Joseph H. Kibbey, former governor of Arizona, and former District Judge Ernest W. Lewis argued in opposition.

The governor declared that hanging is one of the last relics of barbarism, an act of revenge rather than justice and he stated that he had accumulated statistics that states without capital punishment have the least crime. These figures he will submit in a recommendation to the next legislature, asking abolition of the death penalty.

Possibly the most material point

of the opposition lay in the fact, as stated, that nearly all life-termers at the State penitentiary are either paroled or pardoned. Judge Lewis stated his belief that were capital punishment abolished in Arizona resort to lynch law would become much more common. In a commentary upon the discussion a local resident stated that the abolition of capital punishment probably would have little effect in that country, where more than 100 murders have been committed in the past forty years and where only one criminal has been legally hanged, he, a Mexican, thirty-three years ago. In that same year, two men were lynched upon the public plaza.

The governor has also directed his philanthropic attention toward easing the work of the laboring classes in general and has written a letter for publication urging that Christmas buyers have more consideration and that shopping be done early and with more charity for the individual behind the counter.

Along the same line is a letter received by the governor, its argument understood to have his approval. It is from the Civic League of Phoenix, presented by its president, Mrs. Pauline O'Neill, urging the passage by the legislature of a universal eight-hour labor law, especially for the protection of salesmen and women in stores and clerk in offices, benefiting a large class of employes not now unionized.

LAUDS MERE MAN AS WOMAN'S BEST FRIEND

Mrs. Percy Vivian Pennypacker, head of the greatest woman's progressive organization in the world, the General Federation of Women's Clubs, lauds mere man as an admirable institution.



"The women's clubs have brought the women of all sections in this country together in one great cause—the cause of human progress," she said in discussing her work.

"They have given the inspiration for more thorough, intelligent work, saner, broader and more altruistic work. They have taught women to know and understand and admire the genius and labors of the country's best men, and this is one of the most important of their accomplishments. We are fighting for better educational laws. We are striving to secure better property laws guarding the rights of married women in such states as have not already adequate laws governing married woman's property."

"We are anxious to bring about the use of school buildings as social centers. We are vitally interested in child labor laws that will actually protect the child. "National forest conservation is another of our interests. We are working for the protection of bird life and to secure the co-operation of women in that they shall cease wearing bird decorations in their hats. "We want to come in closer touch with the woman who goes out into the world to earn her living. That way we can break down prejudice between the so-called classes. "We are making a scientific study of the living wage of women and girls in order that we may deal intelligently with the white slave octopus."

VINCENT ASTOR WOULD LIKE TO BE REPORTER

Before Vincent Astor sailed southward the other day on board his steam yacht Norma he revealed an ambition achievement of which mere accident of birth has cut him off. The richest youth in America, next best to directing the destinies of the fortune left by his father, would like to be a reporter.

For a half hour stood, hatless and carefree, on the wind-swept outer end of the pier at the foot of West Thirty-fourth street, chatting with a reporter.

"As soon as we get outside, Smudge will be the most miserable dog in the world. He'll never be one of those good old sea dogs," he said laughingly. The dog occupied Vincent Astor's attention for a moment by sitting on his haunches and offering a languid paw. His master took it.

"I've always had an idea," he continued, "that reporters just kept walking around or riding in cabs here and there until they came upon something interesting. What a marvelous system you really do have. I suppose now if I were interviewing myself, that I would ask something about my matrimonial plans?"

The youthful multi-millionaire looked at the real life reporter with innocent eyes.

"And then," he went on, "I, being myself and being interviewed, would probably rush down the gangplank and tell my sailors not to let that reporter catch me. Yet, it seems to me there would be a lot more fun in being that reporter than in being myself. Yes, sir; if I weren't Vincent Astor, I'd like to be a reporter, too."

PECULIAR RULING OF A NEW YORK JUSTICE

A good course in any well-equipped gymnasium ought to help a man protect himself against his wife's heavy hitting average. This is what Justice Edward B. Amend, of New York, intimated when caught between two sessions and pressed for a solution to the problem how a man may secure his life and limb against permanent injury when his wife is bent upon winning the slugging championship of the family.

To be exact Justice Amend did not advise the gymnast answer to the problem. He merely said he thought it might be "prudent" to take some such precaution.

Recently a husband who had never laid claim to any physical superiority and who hadn't even a speaking acquaintance with the gentle art of jiu-jitsu came with tears in his eyes and

English Property Held by Monks.

The monks of St. Bernard, who have found it necessary recently to revolt against the manners of British tourists, have had interests to guard in England for several centuries. Their mother house at Montigny held formerly possession of many broad acres in that country. In 1717 we find recorded among their landed estates the hamlets of Ramford. Henry II. gave them the hospital at Horne church (or Haversing), in Essex, which was acquired from them by William of Wyke-

ham for his foundation of New college, at Oxford, which still owns the property and "advowson" of the living. One of the earliest detailed itineraries of the St. Bernard pass is that of Sigorie, archbishop of Canterbury, who crossed it in 990.

In the Tram Car.

Man (sitting)—Pardon me, madam, but you're standing on my feet.

Woman (standing)—If you were any thing of a man you'd be standing on them yourself.

Meanness of Him.

"He plays upon her aversion to keep her from suing him for a divorce. It is provoking."

"Upon her aversion?"

"Yes, he makes her a bigger allowance than any judge on earth would allow her for alimony."

Deft Phraseology.

"Why did you ask the hotel waiter if there were any barnyard terminals in this town?"

"Because, you stupid, I want to get some cocktails."

UNSOLVED MYSTERY CHEMISTS AT SEA

Hope to Unravel Secrets of Easter Island.

It is a Queer Little Spot on the Great Ocean Fourteen Hundred Miles From the Nearest Pitcairn, the Nearest Land.

Two recent events have revived interest in and promise the final solution of a mystery that has puzzled the world for 200 years, or at least since the Dutch navigator Jacob Roggeveen discovered the triangle of land known as Easter Island, on Easter morning, 1722, 27 degrees and 30 minutes south of the equator, 2,000 miles from South America, and 4,400 miles from the nearest land, Pitcairn Island.

The two facts that may prove the keys that will unlock the secrets of Easter Island are the sailing of an expedition in an auxiliary schooner yacht fitted out by the British museum, as an expedition of research and investigation, in charge of W. Scoresby Routledge, and some late conclusions by Prof. W. E. Safford of the United States department of agriculture, botanist and ethnologist, who has traveled among the isles of the Pacific and also in South America to trace points of similarity, if they exist, between the as yet unsolved sculpture and untranslated language of the 42 square miles of land and the monuments and peoples of Peru and Bolivia.

On this bit of territory have been created upon cyclopean masonry, according to the latest bulletin of the Pan-American Union, also there are stone houses, some more than 300 feet in length, with walls six feet thick, built like forts. There are tablets in a strange language, terraces on headlands, with wall toward the sea, sometimes 30 feet high and more than 200 or 300 feet long. On the land side of the terraces are large stone pedestals for the images.

Most of the effigies and inscriptions are cut from rough solid lava. Forty are inside the crater of one volcano and outside are as many more at the foot of the slope, where they were placed for removal to different platforms. Some platforms measure only three or four feet in length, while others are eighty feet in extent. The largest is in an unfinished state. If erected upon its pedestal it would stand seventy feet in height. The smallest figure is but three feet high. All are of the same grim, frozen-faced type, with the head long, eyes closed under heavy brows, nose large, low bridged and very broad at the nostrils, the upper lip short and the lips pointing. In most instances the head tilts backward. The lower part of the face is broad and heavy, but perfectly formed. Ears are long and pendent. The shape generally ends at the shoulders or waist. The expression is profoundly solemn, disdainful, rudely protruding supercilious scorn.

One of the most remarkable features of the mystery is the fact that only one of these images stands in its original position upon a platform. All the others were thrown down. The work of these ancients stopped suddenly. But why? For two centuries this question has remained unanswered. Was it the eruption of a volcano that did it? Some of the largest of the images are buried to the neck in ashes and fragments of lava.

The recorded writings of the race of stone artists is cut into wooden tablets. Their alphabet, words and sentences, significant thoughts, are expressed by pictures of men, animals and various geometrical designs. To read a page in this supposedly fascinating recorded thought, provided you had the lexicon, you must read from left to right. Then you must turn the wooden page upside down and continue to peruse from left to right. Then again must the student invert the tablet as finished.

Professor Safford, a man of great learning, has made the interesting discovery that the language of the least than 200 inhabitants today is essentially Polynesian and like that of Hawaii. Nearly all the words in the language spoken by the natives could, by observing certain fixed laws or changes, be converted into Hawaiian. Some of the gods have the same names as the ancient Hawaiian gods, although the islands are separated by 2,000 miles of water. Contrary to the theory of others, Professor Safford believes that the handful of present-day inhabitants are the descendants of the ancient lava carvers.

Easter Island, with its buried yet visible mysteries, now belongs to Chile, which has discovered ceremonial scepters, clubs, idols of stone and hard wood with eyes of glass volcanic rock and shell, ceremonial paddles, feature head dresses and small clubs for beating the bark of paper mulberry trees for tapa cloth.

Held Dead Man Negligent. In Morse vs. the Commercial Travelers Accident Association the supreme court of Massachusetts had before it the case of an accident insurance company which refused to pay a policy on the life of a person drowned while canoeing. The facts showed that the insured had continued on a pleasure trip on a lake in a high wind when persons familiar with the location had warned him of his danger and when no other canoes were out. The court decided that the insured voluntarily exposed himself to unnecessary danger and was negligent and that no recovery could be had.

Repairing St. Paul's. The repairing to be done to St. Paul's cathedral, whose stability is thought to be threatened by modern traffic conditions, reminds one how Wren, the architect, had long to contend with those who, after the great fire, proposed a mere patching up of old St. Paul's rather than the building of the new. Pevsner, in his diary for 1868, notes two visits to the tottering wreck of the old cathedral. "I stopped at St. Paul's," wrote he, "and did see a hideous sight of the walls of the church ready to fall, that I was in fear as long as I was in it." A second entry runs: "Up betimes, and walked to the temple, and stopped, viewing the exchange, and Paul's and St. Faith's, where strange how the very sight of the stones had made me sick!" One notes the phrase as coming from a secretary to the admiral.—London Chronicle.

Sins of the Father. Tommy came home from school tomorrow. "Well, my son," observed his father cheerfully, "how did you get on at school today?"

Tommy said that he had been whipped and kept in. "It was because you told me the wrong answer," he added. "Last night I asked you how much was a million dollars, and you said it was a '— of a lot.' That isn't the right answer."

Expensive Furniture. "You've had your phonograph a year now, haven't you?"

"Yes; just a year."

"How much did it cost you?"

"A hundred and fifty dollars. Fifty for the machine and records, and the \$2 a week the landlady put up my rent because I had the bloomiest thing."

The Diet. "How is Smith feeding his cold?"

"I suppose he is doing it with his hay fever."

Formulas That Have Baffled Scientists for Centuries.

Substitute for Rubber, Gutta Percha, Camphor, Cork, Rust and Mortar. Defies the Skill of the Most Noted Inventors.

It was announced a few weeks ago that a noted chemist of the Imperial Technical school of Moscow had solved the problem of making artificial rubber, and that he could sell the new product at about 32 cents a pound.

Yet, in spite of this widely disseminated piece of news, the price of rubber remains pretty much the same. The reason may be found by examining the patent office records, says London Tit-Bits. During the past ten or twelve years nearly 300 patents for artificial rubber have been taken out.

Substitutes have been made from petroleum, from coal tar, turpentine, peat, from nitrated linseed oil and by treating cereals with phyalin. The latter invention made a considerable sensation so long ago as 1905; yet, judging by the constantly increasing demand for the natural product, it has had little effect upon the real rubber market.

The chemist, working in the laboratory, can take any substance and analyze it—that is, break it up into its original constituents and tell you what they are, and how much of each element the substance in question is composed of.

But when it comes to building up the original substance out of the prime constituents there he is at sea. By dint of long and patient experiments, or perhaps by pure chance, he may succeed in reproducing some natural products, but that is as far as he can go.

Indigo dye took many years to synthesize. A German chemist accomplished it at last, but the curious discovery was made that, if blended with the natural product made from the indigo plant, the color produced was both more durable and brighter than that made by either dye alone. So artificial indigo has not yet ruined the indigo planter.

Artificial camphor has also been produced. It is now made from pine tree turpentine. But the chemist has not yet succeeded in synthesizing gutta percha. This commodity grows yearly more rare. Enormous quantities are required for making golf balls and for the covering of submarine cables. A fortune awaits the clever man who can make artificial gutta percha at a price which will allow it to compete with the juice of the Dichopy gutta.

Cork is another substance of everyday use which seems to defy the inventor. The only substitute for cork is paper treated with paraffin wax. But such a cork could not be used for a bottle of wine. So far nothing has been artificially made to compete with the bark of the cork oak.

At Delhi, the new capital of India, stands an ancient iron monument, which, though exposed at all weather, never rusts or decays. Yet it has no protective covering. Here is a secret which would be simply invaluable to the world, which has been discovered by some Indian artificer of old time and most unfortunately been lost.

At a recent meeting of the Iron and Steel Institute Mr. Cushman said that we could face the future with complacency if we could rediscover the secret. To ship owners alone it would mean a yearly saving of millions. Rust is the great enemy of the steel ship, and she has constantly to go into dock to have her hull coated with anti-corrosive solution.

The mortar made by the ancients defies our laboratory workers of today. Many ancient dyes are more durable than any modern one and of these, too, we have lost the secret, as well as of the wonderful and practically everlasting ink which was used by the monks of old.

Repairing St. Paul's. The repairing to be done to St. Paul's cathedral, whose stability is thought to be threatened by modern traffic conditions, reminds one how Wren, the architect, had long to contend with those who, after the great fire, proposed a mere patching up of old St. Paul's rather than the building of the new. Pevsner, in his diary for 1868, notes two visits to the tottering wreck of the old cathedral. "I stopped at St. Paul's," wrote he, "and did see a hideous sight of the walls of the church ready to fall, that I was in fear as long as I was in it." A second entry runs: "Up betimes, and walked to the temple, and stopped, viewing the exchange, and Paul's and St. Faith's, where strange how the very sight of the stones had made me sick!" One notes the phrase as coming from a secretary to the admiral.—London Chronicle.

Sins of the Father. Tommy came home from school tomorrow. "Well