REAL DIAMONDS MADE

Consine Gene Produced by Two Isdianapolis Men.

Results Obtained by French Investigators Followed by the Americame and Success Said to Have Been Achieved.

The production of diamonds by artificial means is no longer a mere theory. The manufacture of the precious stones has been proved posmible and practical by two chemists of this city, after experiments covering a period of five years, have made ready to announce their discovery to the world, says an Indianapolis correspondent of the New York World.

The two men are Louis H. Schulmeyer, chemist, and Henry Reits, chemist and electrician. Both are well known among scientists of Indiana.

The two investigators have labored ecaselessly in the development of their process. Although, to begin with, obstacles beset them on every hand, police raided their laboratory established in a Virginia avenue basement and carried away some of their mechanical devices, they held steadfastly to their work, devoting the might to their labors to prevent the curious from discovering and betraying their plans. The ordering of machinery was accomplished with the utmost secrecy, different portions being distributed among machinists in various localities in order to prevent disclosure.

Their laboratory was always locked. The doors and windows were made doubly strong by steel bars. The light by which they worked was produced by their own electrical engines; everything, in fact, was done so prevent strangers from intruding.

Before a furnace whose temperature ranged at 7,000 degrees Fahrenheit much of their work, perforce, was accomplished. Oftentimes, with "their hands and faces blistered by the heat, they were obliged to delay their operations until the burned skin healed. During such delays, however, they were not idle. When physical labor became an impossibility they bent their energies toward the theoretical portions of the proc-

Finally the development reached such a stage that there was no longer any doubt of success. Following the last experiment, the two investigators produced diamonds rang-"Ing in weight from an infinitesimal equantity to three-quarters of a carat. At the same time, they were able to produce stones of any color.

Even now the imperfect diamonds produced by their process are on the market. When it was found that the practical shape, they were crushed and sold as diamond dust.

Schulmeyer and Reitz first became Interested in the experiments by fol-Bowing the results obtained by French investigators. These had failed to produce stones that were of heavy enough weight to prove of practical value in the competition with nature's product.

Nevertheless their experiments furnished the foundation for the success attained by the two Indianapolis men. The French investigators, after first placing carbon in a cast iron crucible, submitted both metals to inn intense heat. When the iron had absorbed the carbon under this treatment it was removed from the blast and immersed suddenly in a bath of molten lead. Through the contraction of the outside of the iron cruci-Thie a tremendous force was brought. to bear on the melted carbon within. As a result of the contraction the ecarbon was crystallized and the diamonds, exactly on the principle of their natural production, were formed on the surface of the cooled

Schulmeger and Reitz, however, discovered that this process was capable of producing only small stones. "If there is to be any real practical walue in such a discovery," they declared, "the gems must be of larger mize."

Instead of the cast iron, Schulmeyer produced an alloy that will absorb carbon more quickly and more thoroughly than any other known substance. Reitz set to work to overcome the pressure problem. He produced, as a result of his experiments, pumps that will bring to bear on every square inch of the surface of the heated mass 40,000 pounds of pressure.

Under the heat in the electric furmace Schulmeyer's product was brought to the proper temperature and then submitted to treatment uneder Reitz' enormous pressure machines. Instead of cooling the heated mass suddenly, it was allowed a week or ten days in which to cool. being maintained during this period under the 40,000-pound pressure. . In this manner the large diamonds

were produced. Not only can perfect atones be manufactured by this process stones that are as much diamonds as the original diamonds themselves-but. by adding a small amount of certain metallic oxides at the beginning of the process, crystals of any color can be obtained.

Mr. Schulmeyer said a few days

"The early experiments, covering a period of about five years, have cost was in money at least \$10,000, and in sime and application many times this amount."

At Salta in Argentina a list of boys and girls who have failed to attend mehool is published in the newspapers.

USE OF ANTISEPTICS.

Cleanning Solutions That Should Be Resorted To in Treatment of Wounds.

One aim of the surgeon of modern times is to eliminate from wounds all traces of dirt and of germs. The growth of germs produces "dirt" of the most harmful nature, since the absorption of the materials thrown off in the course of their growth occasions symptoms resembling acute poisoning, says Youth's Companion.

The words antiseptic and antisepsis are almost synonymous with clean and cleanliness. A perfectly clean wound heals rapidly and without the discharge of fluids.

In order to secure this most desirable result the surgeon goes to the extreme lengths to secure absolute cleanliness. The site of the wound, the surgeon's hands and nails, the instruments employed must each be rendered absolutely free from the least trace of germ life.

Unbroken surfaces of the skin and mucous membranes are themselves resistant to germ life. Breaks in the continuity of the skin or mucous membrane, or inflammation, form avenues by which disease germs frequently gain entrance to the system. It is therefore desirable that even insignificant wounds and inflamed conditions should be frequently bathed with cleansing solutions.

Slight sore throats, the enlarged tonsils of childhood, whether they are of short or long duration, should, in the light of the present knowledge of disease, be cleansed with mild antiseptic solutions in order that more serious disorder be not the outcome.

Solutions of the kind termed anticeptic are "healing" because they oppose the growth of germ life. Nature herself heals, but progress in healing is more rapid when the process is unhindered by these microscopic forms

Some of the methods in vogue long before the modern term came into use are nevertheless in line with the scientific application of the prisciples of antiseptics. The old-time use of the lye of wood-ashes for wounds caused by unclean instruments is an example. Where antiseptic drugs are not available, clean wood-ashes, formerly at hand everywhere, and boiling water form an antiseptic solution not to be despised, even yet.

During and after times of illness a process of cleansing must be instituted which will render everything antiseptic on which the germs of disesse may have lodged.

Exposure of contaminated articles to sunlight and air is an easy way of obtaining excellent results.

When floors and the like are to be cleansed, carbolic acid freely diluted with water is the best of all easily obtained substances.

moisture and is rapidly fatal to germ life. It has a wide range of usefulness, both indoors and out. It is a valuable deodorizer as well as an antiseptic.

LOSSES IN COOKING MEATS.

Conclusions Drawn by Experts from Their Experiments for the Government.

Dietary investigations made by government experts show that of the total food consumed by the average man in this country, 20 per cent. is flesh-if that term is taken to include not only meat, but also poultry, fish and shellfish, says the Philadelphia Saturday Evening Post.

Incidentally, a question studied has had to do with the amount of nutritive material lost in the cooking of meat. That there is a loss, of course, is obvious enough, especially where the material is boiled and the water afterward thrown away; but nothing has been known on the subject until recently with any degree of accuracy, and hence the value of the government investigation, which ought to have no little interest for the American housewife.

Here are some of the conclusions drawn by the experts from their experiments:

The chief loss in weight during the cooking of beef is due to the driving off of water. Lean beef will lose in this way as much as 38 per cent. of its weight.

When beef is fried there appears to be no great loss of nutritive ma-When beef is cooked in water, from

three to twenty per cent, of the total solids are found in the broth. If the broth is used for soup or otherwise, it is no loss, obviously, Beef that has been used for a prep-

aration of beef tea or broth has lost little of its nutritive value, though much of the flavoring has been re-Fat meat contains less water pro-

portionately, and so shrinks less in cooking. Other things being equal, a small piece of meat cooked in water shrinks more, relatively, than a large piece.

A House-Plant Bint, " Some one who understands the raising of house plants advises that it is a good plan, when seeds are to he sown in window boxes or pots for the house, that the earth be first baked thoroughly in the oven. This will destroy all insects, seeds and germs of any sort that are likely to mjure the plants .- N. Y. Post.

Spiced Cranberrica, To six quarts of cranberries allow nine pounds of augar, and one tablespoonful each of mace, cianamon, cloves and allspice. Boil the fruit in sufficient water to keep from burning one hour; add sugar and spice and cook 30 minutes longer.-Ladies" World, New York.

CONTAGIONOFCANCER

Rooms Become Contaminated and Transmit the Disease.

Ramerous Instances in Support of This Assertion Are Coming to the Knewledge of Maglish Specialists.

The theory that the disease of canoer may, through certain media, prove itself infectious is one which is meeting with considerable attention in non-medical as well as in medical circles, and the conviction is gradually spreading that houses, and more particularly individual rooms, may become infected with the germs of this fearful malady, says

the London Express. Specific instances are constantly being cited in support of such an assumption, and one of the most telling which at present has come before our notice is that of two women contracting the disease after occupying a house wherein four or five years previously a cancer patient had died.

The remarkable part of this story is that a third lady who had resided in the house between these two tenancies also developed the illness after an interval of close upon two years.

To learn whether such instances are commonly recognized in the medical profession, or whether they are merely isolated examples to which no particular importance may be attached an Express representative visited several cancer specialists the other day.

At the cancer hospital in Fulham road the authorities were reticent on the subject.

"I believe," observed the house surgeon, cautiously, "that cancer is not regarded as contagious in medical circles."

A well-known specialist, however, who has devoted many years to an exhaustive study of the subject, was more inclined to wave the professional etiquette which disallows a conversation with a layman upon matters medical.

"I should be only too pleased," he said, "if this matter should receive the attention at the hands of the public which it undoubtedly deserves. For my own part, I am fully convinced that cancer, without being essentially a contagious disease, may under certain circumstances prove itself infectious. Whether this view is generally entertained I am not prepared to state. Nevertheless I have no hesitation in asserting that before many years have passed precautionary measures will be adopted in the case of cancer patients, as they undoubtedly will in the case of con-

sumptives. "There is nothing at all remarkible in the instances you refer to Only a few weeks back my attention was directed to the case of a young and apparently healthy girl, who developed cancerous troubles after sleeping in a room wherein her mother had some years back succumbed to the disease. This might possibly be an herditary case, though the likelihood is considerably discounted by the fact that a third woman who occupied the room also contracted the malady.

"Such instances are becoming far too common to be disregarded. Thorough disinfection would probably be an effective remedy, though it is necessary in the first instance to trace the actual causes of infection."

From a seaside resort comes a report of a family who stayed for a few weeks at a house wherein a woman had died from cancer about a year previously. A girl who occupied the patient's bedroom subsequently developed cancer, not a trace of which had hitherto existed in the family.

Railway Chronograph. A remarkable device is the railway

chronograph, which, attached to the machinery of the locomotive, keeps a record of every mile of track traveled. It is claimed for it that it will chronicle every blast of the whistle, exacttime and place; the speed every minute; the time and place a train breaks in two, and how fast the speed when the train parted; the time and place any accident occurs; the speed approaching; the arrival; the delay at any station; how close any number of trains follow the first section in the same direction; where two trains pass in opposite directions; when the engineer first noticed the flag, and if he signaled; how long after the discovery of the flag before stop was made; when and how the air brakes were applied: how long the engineer is on any and every trip; how much steam is wasted through the pop valve each day; reckless speed; useless delays, and excessive waste of coal.-Science.

Illinois River Fishing.

Twenty million pounds of fishes, vielding \$625,000 to 5,000 professional fishermen and affording a livelihood for 25,000 persons, is the remarkable record for 1901 of the Illinois river. Of all other American rivers, the river Columbia with its wealth of salmon excepted, none has fisheries equal to that of the Illinois. Fishing is a great industry on this river, which is wholly within the state of Illinois. It is the life of a hundred river towns; it lattices the river with seines and nets; it gives 500 loaded cars a year to the freight business of the railroads, and thousands of barrels and boxes of freight to the railroads and steamboats; it costs the state of Illinois \$12,500 per annum in its regular, appropriations for protection and prontotion, and requires the constant attention of an attache of the United States fish commission. -Chicago Tribune.

* VOJUE OF LONG CHAINS.

Some of Them Set with Pearls or Diamonds-Others with Hümbler Gems,

Long chains are more than ever in vogue with fashionable women and the jewelers are puzzling their heads over the invention of novelties to encourage the fad, says the New York

All the precious stones, out or in a cabochon form, are used for the chains, a marked preference being shown for diamonds set closely upon a mere thread of gold.

The pearl chains of this same fashion have lost much of their popularity, because of their imitation in the chespest sort of jewslry; but the long rope of real pearls is now, as always, the handsomest long chain a Woman can wear.

Among the novelties the gold chains set with fresh water pearls, irregular in form and varied in shading, have perhaps the first place. One Broadway jeweler shows a chain of odd gold workmanship set at halfinch intervals with rugged fresh water pearls, alternately shimmering pink and misty moonlike gray.

In the same case is a chain of alternating cats' eyes and diamonds, which, while not so exquisite in color as its neighbor, is exceedingly odd

and effective. Another jeweler, equally famous, has a number of long chains in bizarre East Indian effects, cabochon gems, semi-precious stones and enamel being combined in barbarie effectiveness that would be hopeless were it not handled with fine art, as

it is. A chain, ordered by a wealthy San Francisco woman, is set entirely with diamonds, each stone swinging freely in a circlet of gold and taking a new light and color with every slightest

Meanwhile Paris, too, is outdoing herself in the extravagance and beauty of her long chains, but Paris has a new chain fad somewhat less expensive.

A chain of silver, beautifully wrought, is worn, and from it is suspended a single large cabochon stone. The one jewel may be an uncut ruby, emerald or sapphire of great size and lost a fortune, or it may be a moon stone, cat's eye, turquoise matrix or some other one of the humbler stones.

Beware of the Cold Bath, The cold bath in the morning is not so popular as it was formerly. There is much energy expended in the reaction and just at the time of day when this energy is at its lowest ebb. Then, too, cold water has very little cleansing effect. Very hot. water stimulates the nerves, which is the effect that we are seeking from the cold water, while it does not demand the energy of reaction of the latter. The duration of the morning bath should be as short as possible -hardly longer than the mere application of the water to the skin, followed by a brisk rubbing. However, many prefer a cool sponge bath in the morning, and if this is followed by a warm glow and a feeling of well-being, it certainly is beneficial. Many people are not strong enough to react well. A hot bath at night is most cleansing and restful. General bathing must be regulated by individual pecultariries.-Emma E. Walker, M. D., in Ladies' Home Journal.

"Curing" Married Couples. . If every wife who is trying to cure her husband, and every husband who is trying to cure his wife, would stop the operation, and all the husbands would devote their energies to curing themselves, and all the wives devote their energies to curing themselves, the homes would be a great deal happier than they are to-day. There are scolding wives who are bending all of their energies to the task of curing their husbands of habits far less detrimental to the happiness of the home than the habit of scolding. There are husbands who have set themselves the task of curing their wives of imperfections of so much less consequence than the infirmities of character and temper possessed by the husband himself .- Edinburgh

Scotaman. President Was a Dandy, "President Arthur was the bestdressed man I ever saw," said one of the attendants at the white house, who has been there 30 years or more. "He changed shirts three times a day and suits almost as often. He never wore the same suit all day, and during the social season changed as often as three or four times each day. In the summer he was fond of low-quartered shoes, and always tied them with a wide silk string. I have bought him hundreds of pairs of silk shoe strings. He had not less than 50 pairs of good shoes at all times, and I know he did not have less than 100 shirts at a time. He had more than a hundred pieces of neckware, too. President Arthur was a mighty fine man and was good to all the servants and others connected with the white house."--Washington

Effect of Sunday Clothes. True piety is found among the people who make a wide distinction between their Sunday clothes and what they wear on week days. The same people call Saturday night "rub night." They take a wash then and feel elevated until Monday. Such folk seldom go wrong.-N. Y. Press.

No Moonshine Madness, Tess-He has proposed to Miss Passay.

Jess-For goodness' sake! But perhaps there is some excuse for

"Not a bit. He did it in broad daylight."-Philadelphia Press.

MISCELLANEOUS ITEMS.

Gatling's gun is computed to have killed 250,000 men since 1862. The live stock of the country rep-

resents a value of nearly \$250,000,000 over last year. One out of every 49 deaths in Minnesota is due to accident or negligence. according to the report of vital eta-

tistics for 1894 to 1897, inclusive. Of the surviving ex-mayors of New York-there are now seven-William R. Grace was born in Ireland in 1832, Smith Ely, Jr., in New Jersey, in 1823; Edward Cooper in New York, in 1823,

and Abram S. Hewitt in Haveratraw, in One of the newest things in the way of foods is fish powder, which, it is claimed, is a highly nutritive article, easy of digestion, and, therefore, particularly suitable for invalids. It is intended, however, for ordinary house-

hold use. Miss Alice De Rothschild is one of the richest women in England. She owns a villa at Grasse and a London house in Piccadilly. At Grasse 70 gardeners are required to keep this southern paradire in a state of perfection. On the estate she has a collection of zebras, llamas and Hindoo bulle.

An arrangement has just been made whereby the Berlin gas lamps in the streets will be lighted automatically and simultaneously by means of an electric attachment. The current will be switched on from the central station and a spark will ignite the gas, which will be turned on by a special apparatus.

Beven American presidents were born in Virginia. The Adamses, John and John Quincy, were born in Massachusetts; Andrew Jackson, Andrew Johnson and James K. Polk were born in North Carolina. Pierce was a native of New Hampshire; Buchanan, of Pennsylvania: Cleveland, of New Jersey, and Arthur, of Vermont. Abraham Lincoln was born in Kentucky.

A POLICEMAN'S DIPLOMACY.

He Was Mild Mannered and His Beautiful Brogue Made an Im-

pression.

Most policemen would have come up and slapped the three roysterers. on the back and said gruffly: "Here, no smoking allowed in this

depot." But the officer who was on duty before the ticket window of the Exchange street station was a diplomat. and worthy of a wider sphere than he will ever have, even as a depot

policeman, says the Buffalo Courier. There were really four in the party, but there were three of them who were seeing the other man off. All of them are exhibit attaches at the Pan-American exposition, and the fourth man was leaving for his home in a far western state. With his three companions they had started for the train several hours before train time, and they had spent most of the intervening time in drinking his health. Naturally, they were in a mood to be a little careless of the depot regulations.

About half an hour before train time one of them discovered that there was a later train which their friend could take and arrive at his destination just as soon, while the new arrangement would lengthen the time they would have to express their regard for him at sundry bars They repaired to the depot to have his ticket changed.

While he was going through this formality at the ticket office, they stood a little way back in the waiting room, puffing vigorously on strong eigars. A policeman approached, but he wasn't gruff at all. With a pleasant smile and a strong Hibernian brogue he remarked:

believe in soigns." "Why not?" asked one of them. "Because," replied the diplomatic policeman, "there be wan over there which rades: 'No smoking allowed in

"It's ivident none of ye gintlemin

this waitin'-room.' " Three cigars came out of three mouths with a chorus movement, and there was no more smoking.

- Negro Extravagance,

.In some of these negro cabins of the plantation districts I often found sewing machines which had been bought or were being bought, on installments, frequently at a cost of as much as \$60; or showy frocks for which the occupants of the cabin had paid from \$12 to \$14. On one occasion I went into one of these cabins for dinner. When I sat down to the table I noticed that while there were five of us at the table, there was but one fork for all of us to use. Naturally there was an awkward pause on my part. In the opposite corner of the same cabin was an organ for which these people were paying \$60 in monthly install ments. One fork and a \$60-organ! In most cases the sewing machine was not used, the clocks were so worthless that they did not keep correct time-and if they had, in nine cases out of ten there would have been no one in the family who could have told the time of day-while the organ, of course, was rarely used for want of a person to play upon it.-Booker T. Washington's "Up From Slavery."

Peeled and Curried Tomatoes.

Cut four large tomatoes into rather thick slices. Saute them in one and one-half tablespoons of butter. When nearly cooked sprinkle with one teaspoon of curry powder, one tablespoon of flour, one teaspoon of finely chopped onion, a dash of salt and pepper. At the last minute add one cup of cream, let it boil up and then strain over the tomatoes served on buttered rounds of toast.-Good Housekeeping.

MISCELLANEOUS ITEMS.

The British black rat, almost entirely exterminated during the last hundred years by the brown Norwegian rat, is carefully protected and preserved on an estate at Greenlees, Mont-

It is said that Canada is soon to have her own mint and that the gold coins will be called "beavers." In value the "beaver" will correspond to our eagle, ten dollars; double "beaver," \$20. and half "beaver." five dollars.

The post office department has let a contract to an automobile company at Minacapolis for carrying the mails between the post office and substations and making collections from the letterboxes in the business section of the

In the second-class cars of an English railroad there is a sign reading thus: "Passengers are requested not to put their feet on the cushions or seats of the carriages." Underseath one of these inscriptions a humorist added, "or they will dirty your boots." The British are the largest drinkers

of beer in the world and the consumption is growing. The quantity of beer absorbed in 1890 amounted to 1,398,-766,000 gallons, or not much less than 208,000,000 cubic feet; in other words, the contents of a reservoir 2.000 feet long, 1,000 feet wide and 104 feet deep.

A landowner is liable for a nuisance created by another person, according to a Massachusetts decision, in the ease of a derrick with a guy rope atretched across a highway so low as to be dangerous to travelers, where the landowner permitted it to remain after he had knowledge of it, though it was erected by a license.

The biggest moonshine distillery was discovered in Brooklyn the other day in a suburban cottage inhabited by Russian Jews. Its capacity was 150 gallons of proof spirits a day, and its profits were \$500 a week. A wagon load of its products was exptured, and the officers found the place by allowing the horse to choose its own route homeward.

THE CHARM OF YOUTH.

A Young Woman Can Afford to Be Careless in Her Treatment of the World,

There is a charm in youth and happiness that carries a certain amount of thoughtlessness for a time. Yet this charm is only a passing one, and soon fails to win consideration if it is not accompanied by a certain dignity of poise and wisdom and tact, which youth as well as age may possess. The old saying, "beauty is only skin deep," is daily proved by the superior charm which genuine beauty of character exerts on the most triv-

ial minded of individuals. --- No young woman can afford to be bluff and capsless in her treatment of the world. In the old days of the colonial times, manual work was more necessary than exact culture, but they have passed. The maker of doughouts and dumplings was a more important factor in the society of a hundred years ago than the skillful teacher or worker in any skilled field to-day. Women did not have time to be properly educated. Their energies were limited to their homes. All this is changed, says the New York Tribune.

The world demands of anyone who would reap its rewards of success. a great deal of intelligence, and also unselfishness. It demands good manners, which have their root in unselfishness and thought for others. A wise young women who expects to succeed in any vocation does not expect any consideration because of her "thoughtless" youth. She sims to be thoughtful and considerate as well as helpful. A girl who is called to enter a family as a companion, governess, or even as a serving maid may be so tactful and thoughtful that she is invaluable or she may be so thoughtless that everyone in the house is relieved when she takes her

departure. One of the greatest elements of success which a young woman can possess is the power of effacing her own personality in her work so quickly and so well that the worker is forgotten in the perfection of her work. The aid her helpful hand has given, the tact and care she has exercised, make her invaluable. She manages to make herself useful and agreeable to young and old. It is the numberless thoughtful things she has done. which a careless woman might have neglected to do, which has been the greatest value of her work, as well as her skilled knowledge.

When one sees a hurried crowd of schoolgiris possessed of the radiant charm of youth, but full of carelessness, and slangy and coarse in their language, as the youth of the beginning of the twentieth century often are, one becomes thoughtful. No one wishes a young person to be anything but happy, but there is a certain joyousness which is possessed of a sweet seriousness of manner. A well-bred, refined woman, trained for any work, succeeds far better to-day than a coarse, loud woman in any position in life. The time has gone by when exuberant youth will be accepted as an excuse for bad manners.

Rich Americans Victimized. According to a number of well-known art dealers, a flourishing industry is now established at Paris for selling bogus paintings to rich Americans, among whom the picture-buying habit has grown greatly during the past few years. Several French artists whose work is popular in America purpose aiding the dealers to uproot the fraudulent business, which, they say, has now increased to the proportions of wholesale robbery, involving one or two houses that have hitherto been considered respectable.

L'ABEILLE DE LA NOUVELLE-ORLÉANS