

# FALSE AND TRUE GEMS.

IMITATION PRECIOUS STONES ARE EASILY MADE.

Various Counterfeits of the Diamond in the Jewellery Trade—Their Sale Does Not Injure the Sale of the Genuine Article—Other Imitation Stones.

Imitation gems comprise, first, what are known as doublets, in which the upper part of the gem is made of garnet, quartz, or other hard stone, below which is cemented glass of the color of the stone to be imitated.

Secondly, these made entirely of glass, of a very hard and brilliant kind known as paste, colored with small amounts of metallic oxides of the tint desired.

Thirdly, those which are made by heating rock crystal and plunging it in a solution of the color of the gem to be imitated. Sometimes both top and back are of glass, while a thin slab of the genuine stone of inferior quality is inserted at the girdle, so that should the jeweller try the hardness at that point (often the only exposed place that can be tested) he is misled. These are called triplets.

All imitation gems, except the last group, consist of the hard glass called strass or paste. This paste is colored with various metallic oxides, which impart certain tints, as cobalt for blue, manganese for violet, and nickel, copper, iron, chromium, &c., for the other hues. When uncolored it is made into imitation diamonds.

The one point in which all such imitations fail is hardness. Practically they all yield to the quartz and the file, and many are scratched even by a bit of glass.

Besides their softness, they furnish in impure air, the lead becoming brown, and they are heavier than any of the stones they represent. Under the microscope, or even a hand magnifier, when they show fine lines, specks, and bubbles, which betray their origin and nature. The lines and striæ are signs of layers of unequal density and strain. The bubbles are rounded or pear-shaped cavities with angular and crystalline walls, which some gem stones such as amethyst, beryl, and topaz, frequently present. This latter test is also conclusive with reference to the fused compounds or artificial gems from the laboratory.

Imitation diamonds, unlike the artificial very common. We often hear of "diamond-coated" stones, Lake George, California, Sphinx, South African, Parisians, Rhinestones, French paste, and other imitations. They are all of the same substance, a paste or lead glass, as above described. It has much more play of color, or fire than rock crystal or almost any other white stone except the diamond, but it has less hardness than any of them, even less than window glass, and though showing fire, is devoid of lustre. Of late years these imitations have been much improved in brilliancy by having the backs silvered like a mirror, whence they are called foil backs. Attempts to improve their hardness, however, have only resulted in a loss of brilliancy. The best of them can be imported by the gross for 25 cents apiece, or even less; yet they are often sold by the carat to lend impressiveness to the transaction.

The greater the sale of imitations, the greater the sale of genuine stones, as our import list will show. Sometimes jewels which have been kept unused in their cases for many years, when finally taken to the jeweller to be cleaned or repaired, are found to be wholly or in part glass. Among many instances may be mentioned a ring of Daniel Webster's set with nine diamonds, two of which were imitations.

The first mention of the sale of any considerable quantity of imitation diamonds was at the end of the last century, when Strass, a jeweler of Paris, obtained or manufactured an improvement on the glass previously used, and gave it his name. The stones immediately became popular. Elegant women wore no others for some time, but when after a while the brilliancy faded from them, they were discarded, and the fair experimenters returned again to the real diamonds, that never lose their charms.

In 1831 Doalt Wieland of France took the prize offered by the Society for the Encouragement of Arts for the best treatise on the manufacture of imitation stones. His processes were published, and ever since France has held the lead in this industry. The perfection of the imitation depends upon the finished form and polish. The material must be pure, and certain rules of proportion must be followed, but much depends upon the touch and good judgement of the lapidary, and large sums have been lost in the attempt to cut these stones by machinery. About 2,000 workmen are employed in making them, and the industry is very prosperous. Most of the finer imitation stones are made at St. Claude, Sept Moncel, and adjoining towns in the French Jura Mountains, and at Paris. In the Jura the secret of producing the stones is kept closely guarded from generation to generation. The medium and poorer qualities come from Bohemia.

The form of imitation gems called doublets is very extensively used in modern jewelry. Some of them are very clever imitations of the genuine. The old-fashioned doublets of twenty years ago,

chiefly made in France, contained a thin layer of some cheap real gem, like garnet or rock crystal, for the top of the gem, while the lower portion was of a colored glass to match, the two being joined together with mastic. When looked at sideways, however, the girdle always appeared rough, and the line of junction was sometimes visible. Frequent frauds and deceptions were practised with these doublets.

Doublets are now also made by fusing colored glass, or joining it with mastic, to a top portion of quartz, rock crystal, or garnet, so that the color is then diffused through the whole mass, and the top portion, which is seen, has the appearance and lustre of a real stone, and does not become scratched in wear. Garnet doublets of this kind are very numerous and pretty, and are often mistaken for spinel or even for Oriental rubies. The same is true of sapphire doublets, which are often sold to the unsuspecting as the genuine stone.

The Oriental ruby is very difficult to imitate, but on account of its rarity and costliness imitation is frequently attempted. In some doublets a light shade of garnet is used on the top to give the appearance of spinel, or Balas rubies, which differ in color from the Oriental ruby. None has as yet succeeded in catching that peculiar violet or purplish tint due to dichroism that flashes out from the glorious inimitable Oriental ruby.

Sapphire and emerald doublets are made with the top surface of rock crystal or garnet, and show the color characteristic of the genuine, though the line of connection between the two parts is always visible.

Diamond doublets are rarely met with, but have occasionally been sold. A five carat pair of doublet earrings was purchased by one of the sharpest dealers in New York city, and he did not discover their true nature until he had removed them from their mountings. Flat pieces weighing one carat each had been fastened on to represent the crown and table of the diamond, and were then backed by a fine French paste. Their value was not one fifth what it would have been had they been real brilliants.

In the doublet, however, the true character of the stone is determined by testing the base, when its softness reveals the deception. To avoid this the triplet has been devised, in which pale sapphire, topaz, or quartz is used for both crown and base, while a thin layer of deeply colored glass, by the method of the triplets, is used to represent the girdle. Immersion in water is in most cases sufficient to reveal the cause of this illusion. If either a doublet or a triplet be boiled in water, or soaked in a bottle of chloroform it usually falls apart, revealing its composite structure.

Turquoise is imitated in various ways, sometimes by pieces of chalcedony dyed to the proper hue. The dust and refuse of the turquoise workers of the Orient are made up by hydraulic pressure into turquoises that frequently puzzle the best of judges. The blue carbonate of zinc called smithsonite, from Laurium, Greece, makes a very deceptive turquoise, and if we take and impalpable ivory powder precipitate it in a solution of sulphate of copper, compressed it in a hydraulic press, dry and bake it, we have a fair-looking imitation of this beautiful stone. Chrysocolla, or silicate of copper, is sometimes sold as turquoise, but is softer. Some years ago parcels of turquoise were sent from New Mexico containing small lots of exceptionally fine color for American material. On examination they were found to have been strained, the coloring matter being the same as that used in Germany in turning the breccia agate to imitate lapis lazuli, that is, Prussian blue. The simplest test for this imposture is to wash the stone in alcohol, and then steep it in ammonia for a few hours, when it will resume its natural greenish hue.

In 1880 a large quantity of what was supposed to be rich blue sapphire was extensively sold in London. In reality it was a fused mixture, not a crystalline body, and on analysis proved to correspond to the color of the stone. The color was so good that before the deception was detected some had been resold for £20 a carat. Another attempt was made to sell it as blue beryl, although it was as soft as glass.

Imitation pearls are simply hollow spheres of semi-opaque glass, coated internally with a preparation known as the "essence of Orléans," the scale of the small fish found in the French rivers and called the black.

The so-called blue moonstone sold at the World's Fair was simply a reddish glass with a bluish reflection backed with a silver foil. Coral is much imitated. The commonest form, called coraline, is manufactured out of a paste prepared from pulverized marble. The ordinary good test, by acetic acid, will settle the genuineness, and celluloid has driven coral out of fashion.

The price at which the common glass imitation stones can be made in the Bohemian Mountains is so small as to seem almost incredible. One hundred dozen stones weighing one carat each are sold for four marks, 94 cents. The girl who does the cutting receives 50 kr. a day, which equals 20 cents. The stones are cut on grindstones, and not on the regular lapidary wheel. Only a single row of brilliant facets are cut in the stone, and then they are polished. The cutting is done at home, and constitutes a "house industry" among the peasants and others living away from the cities.

For imitation turquoise, one mark per hundred dozen is received, and so rapidly is the work done that 40 kr. (16 cents) can be earned in a day. For a cut stone measuring one-fourth of an inch in diameter, they receive eight marks for a hundred dozen. This work is done in the vicinity of Gaholts in Bohemia.

Many methods of concealing defects in diamonds have been resorted to from time to time. A few years ago was invented the blue diamond, aniline diamond, or wash-diamond swindle, as it was variously called. It was applied to off-colored and slightly yellow diamonds. If painted on the back with a dilute solution of aniline and alcohol the yellow color is neutralized and they appear either perfectly white or a brilliant blue-white. This steel-blue tint

cannot be removed by ordinary washing, alcohol, or some other solvent being required; hence, if one of these aniline diamonds is mounted in water-tight or closed box setting, it will pass, for a long time undetected. The first illustrious discoverer in that field received six months' imprisonment in Paris for his reward, and one 20,000,000 francs of aniline-tinted diamonds before he was detected. Similar rogues were practised centuries before, and old Turkish brilliants are frequently found coated up to the girdles with indigo.—G. F. Kunz in N. Y. Sun.

## UNLUCKY FROM THE START.

The story of the Last Vessel Built by a State of Maine Firm.

The Hon. Seth L. Milliken recently said that the death of Austen Carter of Belfast recalled a very strange story connected with the last of the 100 vessels built by his firm. It was a large vessel and cost when completed about \$155,000. It was a ship, and was regarded as one of the best, if not the best, turned out by the famous firm of shipbuilders.

She was on the stocks at the time of the death of Mr. Columbus P. Carter, and he had intended that she should bear his name, but after his death his interest was purchased by B. R. Hazleton, and was named after him. The command was given to Capt. Harriman, "one of the best sea Captains," said Congressman Milliken, "who over sailed from this port."

From the first day of the voyage the ship was unlucky. She went on a rock, and was got off with great difficulty, on her voyage home. The same ill luck went with her on her second trip, and on her return the Captain said to Mr. Milliken, "The ship is bound to be un'ucky. There's a dead man at the wheel, and he's steering her for every rock in the ocean. I'm going to take her home more trip and then leave her."

He started, but the same ill luck went with him. When off a South American port the ship struck a rock laid down in no chart and went down. The crew had just time to take to the boats, saving nothing. Capt. Harriman was in charge of one boat, his son of a second, and the mate of the third. The Captain and mate reached the shore in safety, but the young man was not heard from for months, and then only when he reached Portland, O.

Capt. Harriman returned home, and while some of the owners blamed him for the loss of the ship, the late Mr. Austen Carter did not, insisting that it was not to blame for not knowing the location of a rock laid down in no chart. The cargo of the ship was valued at \$400,000, and the Captain went down to South America in the hope of raising her. He took with him a wrecker, who thought there was more money to be made by blowing her open and getting at her cargo, and so, it was alleged, arranged with a diver they sent down to make a false report of the condition of the ship. Capt. Harriman had set his heart on taking her back to Belfast, and when he was told that she could not be raised he threw up his hands, gave one cry, and then those who were with him were struggling with a man violently insane, and insane he remained until his death. He was taken to England, and then back to the United States, and died in an asylum for the insane.

Mrs. Harriman died, and so did their daughter, and there remained but one in the family, the son who escaped when the ship went down, and who with great difficulty reached home, having been picked up after the B. R. Hazleton foundered, but not until all in the boat had undergone the last extreme of suffering. He went to sea again, this time with Capt. Snow of Buxport, and Captain, crew and vessel were never heard from after they sailed.

"Certainly," said Congressman Milliken, "a long trail of disasters followed every one who had anything to do with the one-hundredth vessel built by the firm."—Portland Press.

## Keeping an Old Contract.

Many people wonder why the mail is taken from the general Post Office in the city of Mexico to the various railroad stations in an ancient diligence; the Laredo Times in a recent issue gives the following reason:

"Before railroads were thought of, a certain man made a perpetual contract with the government to carry the mails between Mexico city and El Paso. For many years his stage faithfully made the long journey until one day the Ontral Railway between these two points was finished and the mails ordered sent by train. But the old contract was still in force, and the owner of the business, a son or grandson, of the original contractor,

firmly refused to relinquish his rights and stated that he would carry the mails by stage as usual. He held out until it was finally agreed that he should indeed take the mails from the general post, but deliver them at the railway station a mile or so distant, for which he was to receive the same compensation called for in his contract for making the thousand-mile trip to El Paso. And that is why the old stage coach carries the northern mails through the city from the post office to the railway station, and back again. It may be old and out of date, but that contract is as fresh and vigorous as ever and cannot be set aside."

## HIS QUEER EXPERIENCE.

Everybody Thought He Was Dead, But He Had Quite a Different Idea.

"Talking of peculiar experiences reminds me of something that fell to my lot during my boyhood years," said John H. White.

"I had been injured in an explosion of fireworks and was sick for a time, but had recovered and thought I was well when I was stricken with an attack that effected my head and prostrated me for several weeks. The injury caused me great pain and suffering, and at times I was delirious. The climax of my trouble came one night, after I had suffered terribly during the day, and as a change took place in my condition I sank away until the watchers at my bedside concluded I was dead."

I was hundreds of miles from home, and the friends waited for morning to dawn to send word to my parents. They had sent word to the undertaker, and covered me with a sheet while waiting for him. They also tied my hands and feet in position, and fastened a cloth under my chin and left me for dead. As I was covered, they did not notice any other change, and so did not see that I was reviving. I was very weak, and had not the strength to make any resistance of consequence. At the time I awoke I found myself covered with the sheet and my mouth closed with the cloth and my hands and feet tied. I realized at once the mistake that had been made. I was weak and could not call to move. The realization of the horrible trance dazed me so I was powerless. I lay there under that sheet more than an hour, and it was the most frightful experience I ever underwent. I wondered whether the undertaker would come and finish me, and then I wondered whether I was really dead, or whether I was in a pain in the head and great weariness, and all thought and study became a trouble to me. I lost appetite, did not relish ordinary food, after eating, suffering acute pains in the stomach, and the most of my food seemed to turn to sour water, with most sickly and suffocating feeling in vomiting up such sour water.

Very faithfully yours,  
C. J. FREEMAN, B. A., Ph. D.  
Late rector of St. Mark's, Montana.

Dr. Williams' Pink Pills contain in a condensed form, all the elements necessary to give a new life and richness to the blood and restore shattered nerves. They are an unfailing specific for the greatest diseases as locomotor ataxia, partial paralysis, St. Vitus dance, sciatia, neuralgia, rheumatism, nervousness, headache, the after effect of la grippe, palpitation of the heart, weak and shallow complexions, all forms of weakness either in male or female. Pink Pills are sold by all dealers, or will be sent post paid on receipt of price, (50 cents a box, or six boxes for \$2.50—they are never sold in bulk or by the 100) by addressing Dr. Williams' Medicine Company Brockville, Ont., or Schenectady, N. Y.

St. Paul misjudged.  
Happily a difficulty which has afflicted the church for several centuries will soon end, if the emendation of the Greek text made by a patient investigator be universally accepted. St. Paul has always been regarded as the determined foe of all women preachers, married or spinster, and many ladies have felt very grievously this slur on their status in the Christian community, and even run the risk of creating schism by preaching in defiance of the alleged apostolic command.

But the crux is now solved. The investigator referred to holds that the Greek word "gyno," which St. Paul uses, does not mean in that particular text women generally, but "married women" whose husbands are alive. Some critics are capable of suggesting that the only importance of the new gloss is to go one better than the old saying of a wife being a crown to her husband, by showing that she is really a gyne (usually spelled guinea); but the emendator takes the subject most seriously. For instance, when St. Paul speaks about women keeping silent in churches, he immediately adds, "Let them ask their husbands at home," showing that his prohibition of speech merely referred to wives.

Moreover, in the acts of the apostles, it is distinctly mentioned that one Philip had four daughters, unmarried, who prophesied, or preached. The new contention, therefore, is that St. Paul's injunction is sufficiently met if married women cease to preach, but as far as maidens, spinsters, and even widows are concerned, they may discourse as much as they please without breaking any law of the churches or apostolic command. On this point it may be interesting to note that in America, women preachers are increasing with amazing rapidity, and promise before the next century is far advanced to equal the number of their male rivals. The denomination in which they abound are the Baptist, Congregational, Universalist, Unitarian, and Methodist. According to recent statistics, they number 1,235, while in 1891 they were 760. The statistics do not show whether any of them have husbands alive.—Boston Herald.

Paper shoes, which were said to wear as well as those of leather, and to resist equally well the entrance of moisture, were known in China in the days of Marco Polo.



## This is tiresome.

Rubbed off in the wash you see. But the wonder is that any buttons at all are left on, when you grind them up so against a washboard. It isn't necessary, if you wash with Pearline.

No washboard; no rubbing; no buttons worn off; no holes worn in. Think of the different kinds of work that you save, with

Pearline! And the money! Remember, too, that if you keep to things proved to be absolutely harmless, there's nothing you can use that is equal to Pearline, the original washing compound.

Send it Back  
Peddlers and some unscrupulous grocers will tell you "this is as good as" or "the same as Pearline." IT'S FALSE—Pearline is never peddled, and if your grocer sends you something in place of Pearline, be honest—send it back.

## A FAMOUS REFORMER.

REV. C. J. FREEMAN SPEAKS OF HIS LIFE AND WORK.

He Has Written and Preached on Both Sides of the Atlantic—Recently the Victim of a Peculiar Affliction From Which He Was Released in a Marvellous Manner.

From the Boston Herald.

No. 157 Emerson St. South Boston, is the present home of Rev. C. J. Freeman, B. A., Ph. D., the recent rector of St. Mark's Episcopal Church at Anascondia, Mont. During the reform movement which has swept over Boston, Dr. Freeman has been frequently heard from through the various newspapers, and although a resident of a comparatively recent date, he has exerted much public influence, which has been increased by the fact that he was ten years ago on a commission appointed in England to investigate the troublesome question of the vice of great cities.

He has preached before cultured audiences in the old world, as well as to the rough pioneers in the mining towns of the Rocky mountains, and his utterances as well as his writings have been in the line of progress and liberality, well-seasoned with practical common sense. Dr. Freeman has written this paper a letter which will be read with interest. He says:—

"Some five years since I found that deep study and excessive literary work, in addition to my ordinary ministerial duties were undermining my health. I detected that I was unable to undertake anything that I usually did; that after but a little thought and study I suffered from a dull pain in the head and great weariness, and all thought and study became a trouble to me. I lost appetite, did not relish ordinary food, after eating, suffering acute pains in the stomach, and the most of my food seemed to turn to sour water, with most sickly and suffocating feeling in vomiting up such sour water."

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## FIBRE CHAMOIS

ASK TO SEE THE LABEL

Bearing the name on each yard. Unscrupulous merchants have been known to take the outside label off of imitation articles and then sell it as the genuine.

## PROTECTION FROM COB

In spite of all the jackets, from the hideous long stylish ulster, the place, and as long as their magnificent pretensions to do so. No jacket sleeve, no stiff-cuffed sleeve will fort, and the effort of a jacket is too much for the undertaker very has it disadvantages last week, it lacks warmth of the jacket you can wear your going about in this old bodice of two y the perpetual dread happen to compel you et. Just now very is collarette family are mild weather we have quite warm enough of heavy cloth as a collarettes suggest of ten years ago, enough to reach the and not quite so full spring. A very Persian lamb is laid on the shoulder to this method of decaying to the warmth of appearance of fulness a lavish trimming of heavy cloth as a bon, and a large Russian sable is in tails and paws of the rolled collar which worn either high cape like this is are numerous p in black, or color skilful dressmaker price. Black, green are the favorite with light brocade trimming; a band or a fur collar mark.

Of all the color black that I have never expected to used in a dress! funeral about that that one would feel, feeling sure even when used a here is a dress worn, and which is bad.

The bodice and cloth, and the black grain, with the black of clear white lace, a fall of the same in front. A bias forms the belt, and I think I may popular shade of garments! It is in and in the new of emerald or green of emerald or green the dressy toilet clever with her handsome a go bour, and at no price of silk as was obliged to find it the most Tailor made gown ornament exc collar, and cuffs style of garniture ties, and a sin china silk become sprayed litters branches.

A new fashion is very becoming a clear pink be blonde, but it is a sn one who is low. For the brown is the brown of all ity with green sately study be still be in the few women re color plays in M), sure we find out for any article for the lace. A taste in dress ing which tint but for those judgment it is color of the eye in dress. If faintest palest too will deep expression, a color with wh combined i to their who studi soon learn th and intensif necessary b blue and pin