AMERICA'S DIAMOND LODE.

ITS EXISTENCE IN THE FAR NORTH PRETTY WELL DEMONSTRATED.

Not Likely to Be Found Soon, Though—Finds of Diamonds in Wisconsin—Two Other Diamond Regions of This Country—The Discovery of a Mine Not Probable.

Somewhere in North America there lies a diamond lode. Where it is, is at present a matter of scientific conjecture. That it will ever be discovered is very improbable; so improbable that even science will not undertake the search. Nevertheless, there is substantial proof that it lies somewhere north of the Canadian line, for no fewer than seventeen true diamonds have been found in the northern part of the United States, deposited there, the geologists say, by a glacial descent from above. It is probable that the gems were transported a long distance, and one geologist hazards the guess that the mother lode is to the east of James's Bay in Labrador. It is just possible that in the lapse of years the discovery of other diamonds will lead the patient, far-seeing men of science back to the prehistoric source of the jewels.

The first American diamond to be discovered brought $1 to its owners. It was found by a resident of Eagle, Waukesha county, Wis., who was digging a well in his back yard. That was in 1876. He sold the curious looking pebble to a Milwaukee jeweller for the price mentioned. The jeweller put it away in his safe and forgot about it until 1883, when, in going over some old stock, he came across it and examined into its character. It stood all the tests for the diamond, and the announcement of the discovery made a great to-do in that part of the country. Promoters bought land in Waukesha county and promptly "discovered" two other diamonds, which subsequently proved to be of African origin. That ended any hope of a boom there, and naturally the original diamond was regarded as a fake and relegated to oblivion. But in 1893 a stone weighing between three and four carats was found at Oregon, Wis., and the attention of Prof. W. H. Hobbs of the University of Wisconsin was directed to it. In this instance there were no circumstances which would warrant a suspicion of the truth of the statement concerning the manner in which the stone was found, and this fact gave the discovery of the Eagle diamond new importance and interest. The jeweller possessing it was sought out by Prof. Hobbs, the two stones were compared, and the resemblance was such that there remained no reason to doubt that the Eagle diamond had truly come to light in the manner described, regardless of the possible fraud in the matter of the other two stones alleged to have been found in the same vicinity. Both the Eagle and the Oregon diamonds were soon after purchased by a famous New York firm and added to its collection of gems.

Col. Boynton, the former possessor of the Eagle diamond, gave Prof. Hobbs information that led to his discovering another diamond, the largest of all, weighing twenty-one carats. The stone is the property of the widow of a Kewaskum farmer, and was found in a field in Kohlsville, near Kewaskum, while ploughing.

All three of these diamonds were found in deposits of glacial material, which indicates that they were formed at some place probably very remote from the one in which they were found, and were transported thither in the sheet of ice which long, long ago covered the northern part of the continent. Twice this sheet of ice advanced into the great lake territory, and the second time the great wall of drift, called the terminal, marginal, or kettle moraine, was built up. This moraine, in which is accumulated the greater part of the rock transported by the ice, has been traced throughout its entire extent, and that all of the above-mentioned diamonds were found in it is considered to indicate clearly that they were brought to the places where they were discovered by the second advance of the ice, and must have originated somewhere to the northeast along the path traversed by it. For this reason Prof. Hobbs, in describing the occurrence of these diamonds in 1894, prophesied that other diamonds would be found in the kettle moraine. His prophecy has been verified, for since 1894 diamonds have been found in the moraine at the rate of one each year. Of the seventeen diamonds discovered so far fifteen are from Wisconsin, and of the eight localities at which they were found six lie within an area 200 miles square, having its centre near Milwaukee. Of the two diamonds going to complete the seventeen, one, weighing nearly eleven carats, was found in 1894 at Dowagaic, Mich., in a subordinate moraine formed during a halt of the glacier as it was retreating from the region; the other, six carats in weight, was found only last year at Milford, O. Excepting the Dowagaic diamond all the stones were found in the marginal moraine, and all through accident.

Prof. Hobbs believes that the original home of these diamonds is to the east of James's Bay, in Labrador. A more careful survey of the Canadian wilderness will have to be made before search there could be profitably undertaken; and a survey of the moraine in the United States, notably in Pennsylvania and Ohio, is considered of great importance, as it would materially aid in locating definitely the area from which the stones came.

Prof. Hobbs gives the weight in carats of the largest diamonds from this region as follows: Wisconsin—Kohlsville, 24¾; Eagle, 15¼; Saukville, 6 13-32; Oregon, 3¾; Burlington, 2 1-16; Plum Creek, 2. The Plum Creek diamonds, of which there are several, all of them discovered in sluicing for gold, were in all probability washed down from the moraine by the creek in the bed of which they were found, since they lay some distance outside it. The Dowagaic, Mich., diamond weighed, as has been stated, eleven carats, and the Milford, O., stone, which has a remarkably fine water and has been cut into a brilliant, weighed six carats.

The discovery of these diamonds calls attention and gives additional interest to others found at various times and places in the United States. George F. Kunz, the gem expert, has given his work on "Gems and Precious Stones of North America," as well as in various papers published in the "Mineral Resources of the United States," probably the most accurate as well as the most exhaustive information to be obtained on the subject. According to him, the occurrence of diamonds in the United States has been chiefly confined to the barren, geographically very remote and what I may call quite dissimilar. The first is the race track along the eastern base of the Western Alleghanies from Virginia to Georgia. The other extends along the western eliminate the Sierra Nevada and Cascade ranges as far as Northern California and southern Oregon. Mr. Kunz gives the mode of occurrence of the diamonds in the Virginia region a marked resemblance. They are usually found in loose material, associated with other more or less valuable minerals, but particularly gold, in the search for which the diamonds are discovered. This resemblance is due to the fact that the loose deposits in both regions are merely the debris of the crystalline rocks of the adjoining mountains and, therefore, present a general similarity, while the geological age of the rocks themselves is vastly different. The diamonds have sometimes been recovered or destroyed by rude and ignorant methods of testing, but even taking all these lost or destroyed specimens into consideration, they have not as yet been found in sufficient number to justify an attempt at diamond mining, nor have the specimens obtained been of more than local interest and moderate value. There is no reason as yet to believe that they will ever be numbered among the important mineral products of the United States.

A few years ago much attention was attracted to central Kentucky by reports of the finding of diamonds in that locality. Investigation of the geological conditions resulted in establishing the existence of a resemblance to the diamond-bearing fields of South Africa. Closer study, however, revealed the fact that the shale found in Kentucky, though present to a considerable extent and associated with other conditions similar to those in South Africa, was very far below that of South Africa in the proportion of carbon present in it, and since the carbonaceous shale is the source of the carbon from which the diamond is formed the probability of diamonds being present there is proportionately diminished. Two days of careful searching by Mr. Dilles and Mr. Kunz, who were sent by the Director of the United States Geological Survey, resulted only in establishing the similarity of geological conditions above mentioned. No diamonds were found, but this is not considered to demonstrate that there is none there. Still, the formations in the eastern portion of the United States where diamonds have been found differ entirely from the South African, resembling more nearly those of the diamond fields of Brazil and India.

The find of a diamond was reported from Russell county, Ky., in the summer of 1888. C. O. Helm, while walking through a field on the top of a hill, about 300 yards from Cabin Fork Creek, observed in the gravel a small, bright stone, which upon investigation proved to be a diamond, lustrous but slightly off color, and weighing 7-16 carat. The field in which the stone was found was very gravelly, the earth clayey. A number of diamonds have been found in Georgia and North Carolina, a few in South Carolina and one or two in southern Virginia, all apparently derived from the detritus of crystalline rocks before mentioned. The remarkable itacolumite rock, popularly associated with the occurrence of diamonds and generally supposed to be their matrix, is also present at many points of the Blue Ridge.

Finds of diamonds have frequently been reported from California, and though many reports were erroneous it is an established fact that they have been found in certain localities. Some of these stones are both beautiful and valuable, but in most instances they are small and, like the great majority of the other diamonds found in the United States, are valuable chiefly because of their scientific interest. In California, as in South Carolina, the diamonds were found in the auriferous gravel, from which they are washed out in the search for gold. Those which occur in the loose gravel of the valleys and bars of modern streams are found unimpaired, but the case of those where the gravel occupying the valleys of much larger ancient streams is covered with masses of lava or compact volcanic tufa, thrown out in a former period of volcanic disturbance, is not so good, for they are almost invariably crushed in the stamp mills so that only fragments are found, or swept away, together with almost everything else which does not amalgamate with the mercury, by the force of the current if the gravel is worked by hydraulic mining. The first diamond from the Cherokee district, Butte county, Cal., which has since proved to be one of the most prolific diamond localities in the State, was found in 1853. Diamonds have since been reported from five counties in California—Amador, Butte, El Dorado, Nevada and Trinity. Henry G. Hanks, State Mineralogist, is of the opinion that other localities and larger numbers are yet to be discovered.

Small diamonds have been found in Idaho and Montana under similar conditions to those in California. Three diamonds were recently exhibited in New York sent from Butte, Mon., of which it was said that they were found in Montana. They were small and not peculiar.

There have been reports of the finding of diamonds in other parts of the country from time to time, but in most instances the evidence is wanting. One stone, a brown diamond, was, however, found near Philadelphia, Ariz. Two stones were for some time exhibited in Indianapolis as having been found in Indiana.

The "Arizona swindle" is so well known that a brief account will suffice to recall it. In 1870 a company was formed to collect the diamonds and other precious stones described as abounding in Arizona and New Mexico. It was represented in San Francisco that Philip Arnold and John B. Slack had found diamonds and other precious stones in quantities in a certain region, and in confirmation of the tale 80,000 carats of so-called rubies and many diamonds, one of them 108 carats in weight, were exhibited for the inspection of all interested. Capitalists on both coasts became deeply interested, and finally men from the East and the West, together with a mining expert graduated from the Royal School of Mines, Freiburg, Saxony, chosen by the investors, set out prospecting. Reaching the fields after some difficulty, many stones were found—1,000 carats of diamonds and 6,000 or 7,000 carats of rubies in a week. A later expedition failed to reach the fields and was abandoned, and after the failure of a third party Clarence King, director of the United States Geological Survey, set out upon an expedition which resulted in proving that the mines had been salted; that the "rubies" were garnets; that the 108-carat "diamond" was a piece of quartz, and that the whole business, which had caused the capitalists interesting in the mine about $750,000, might have been prevented had a competent gem expert been employed instead of the one so easily deceived.

Mr. Kunz's published description of the Wisconsin stones is even more exhaustive than the one cited here, and through his courtesy it was the privilege of the reporter to see the two diamonds from Eagle and Oregon, as well as a large number of other uncut diamonds of United States origin. The Eagle stone is pale yellow, but has such a lustre and is of so unusual an appearance that it must attract the attention and awaken the interest of any one. The other stone is much smaller, white, more irregular in shape than the Eagle stone, but, like it, bright and smooth as though it had been polished. Since the renewed interest in the Wisconsin finds, it has been proposed to make a survey of the lake region for scattered stones, and it is hoped that those living in the regions where stones have been discovered, and along the entire course of the moraine, will cooperate by submitting to the geologists any stones they find of which there is good reason to believe they are diamonds. Like Prof. Hobbs, Mr. Kunz deplores the prevalence of the erroneous impression that a diamond will not break if struck with a hammer. The diamond is very hard, but brittle and easily broken. Mr. Kunz gives as the best test for determining if the specimen is a diamond, to see if it will scratch corundum. If it will do so, and cannot be scratched by a diamond, the specimen may safely be assumed to be a diamond. The surface of the corundum used in the test would, of course, be polished, since the possible scratch made by the specimen is then so much more readily detected.

"How are African diamonds distinguished from the American ones?" Mr. Kunz was asked.

"More by their color and lustre than anything else," he replied, "and the same is true of diamonds from every diamond-bearing locality, such as Brazil or India. There are some peculiarities of crystallization, too, and sometimes the markings are peculiar to the locality; but it is chiefly a matter of experience."

"And talent?"

"Well, yes; that too; talent schooled by long experience."

"What do you think is the probability of diamonds being found in Wisconsin in larger numbers?"

"There is no reason for believing that they will ever be found in Wisconsin other than in the way they have appeared as yet—scattered stones, of interest as specimens and from a geological viewpoint, but offering no inducement for a regular search for their value's sake. As to the place from which they have been carried, that may be as far north as James's Bay, or it may be much nearer, but the probabilities are against being a paying diamond field, even if located, are not great; the diamonds may be present there in no greater number than in the moraine, they may have been eroded away by the passage of the ice, or the whole field may have been buried under the material transported by the glacier from still further north. So the probability of their being found to any considerable extent is very small."

"And the prospects of the United States for becoming a diamond-producing country are not brilliant?"

"No, indeed. The value of all the diamonds ever found in the States would not exceed $10,000 to $12,000, and there is nothing, as yet, known to geologists which would warrant the belief that the future production of diamonds will differ at all from that of the past. The United States will always have to import their diamonds."

A DEFECT OF CITY SCHOOLS.

Ignorance Found in Young Pupils Concerning Common Natural Objects.

Some educators have lately been surprised by discovering the ignorance of pupils in city schools concerning the common or natural objects about them. Experiments have been made in the schools of Boston, Kansas City and Syracuse to test pupils as to what they know about a list of natural objects. Among pupils of an average age of from 6 to 7 years it was found that a large proportion of them had never seen a bee, a crow, growing wheat, pine trees, squirrels, &c., and had no conception of what these things are. The pupils in the Kansas City Colored School gave the best percentage, Boston the poorest. The following table gives the result of the experiment, the figures showing what percentage of the pupils were entirely ignorant of each object. For example, no idea of a beehive was possessed by 61.1 per cent. of the Syracuse pupils, 50 per cent. of the Boston children, 59.4 per cent. of Kansas City whites and 66 per cent. of the Kansas City colored pupils:

Object.	*Syracuse.*	*Boston.*	*Kansas City, White.*	*Kansas City, Colored.*
Beehive	61.1	50	59.4	66
Crow	85	77	47.3	50
Ant	7.5	66.5	21.5	19.1
Squirrel	12.6	63	4	4.2
Robin	2.8	60.5	30.5	10.2
Sheep	16.7	54	3.5	....
Bee	35.9	52	7.7	4.2
Frog	7.5	50	2.7	....
Pig	3.1	47.5	1.7	....
Chicken	....	35.5	.5	....
Worm	....	22	.5	....
Butterfly	....	20.5	.5	....
Hen	....	19	.1	....
Cow	....	18.5	5.2	....
Growing wheat	46	92.5	23.4	66
Elm tree	30.2	91.5	52.4	80.8
Oak tree	22.3	87	66.2	58.6
Pine tree	37.5	87	65.6	87.2
Maple tree	4.7	84	31.2	80.8
Growing moss	7.5	81.5	30.7	42.5
Growing strawberries	15.4	78.5	26.5	1.1
Dew	12	78	39.1	70.2

In New York State, C. B. Drum, principal of Montgomery School, Syracuse, is a strong advocate of nature study. "Children in the public schools," says Mr. Drum, "are being stuffed with useless text book matter for the sole purpose of passing examinations, while their real education is lost sight of. Children need to have their senses developed. It is more necessary than study. Parents can do more at this than teachers. Boards of Education would think teachers were crazy if they proposed a systematic cultivation of the senses in the public schools, and so we want mothers to teach the children these things at home. Taste should be cultivated with the use of spices, flowers, and fruits, as in the kindergarten; but this teaching should be continued. Touch can be developed in the same way. Beginning with textures, the pupil should be blindfolded and asked to identify different kinds, such as velvet, silk, linen, fur, wood, metals, fruit, &c."

Mr. Drum made a test of the teachers of Montgomery school with spruce gum. Only two knew the taste and smell of spruce.

WEALTH AWAITS THIS MAN.

ROMANCE OF THE FOUNDING OF GALENA, KAN.

The Mysterious Man Who Discovered the Vast Zinc Deposits There and Sold His Secret for $5—Present Mine Owners Willing to Share Their Fortunes with Him.

GALENA, Kan., July 5.—"Wanted, at Galena, Kan., an old man, a college professor, name unknown, home unknown, missing twenty-two years, discoverer of the richest zinc and lead mines in the world, heir to a vast fortune." This is the strange "want ad" of certain wealthy pioneer mine owners of the Missouri-Kansas lead and zinc mining district; it is, in brief, the story of a man, a stranger, who twenty-two years ago came into southeastern Kansas, and through a profound knowledge of geology and mineralogy divined nature's hieroglyphics in rock and soil, "staked off" the most fertile lead and zinc field yet discovered, designated the exact spots where lay hidden vast vaults of mineral wealth, revealed his secrets to one man—and then departed.

During the years that have passed since that "stranger" stood where thei little city of Galena, Kan., has since been built, over $30,000,000 worth of lead and zinc ore has been added to the world's mineral wealth as a result of his visit to Kansas. He paved the way whereby many men have become rich. He caused an uninhabited country to become the home of thousands of prosperous people, but their prosperity he never shared—he "disappeared and left no sign."

The story of this stranger is both alluring and pathetic, and yet it is so faithful to facts that the Historical Society of Kansas has filed it among the important records of the State.

Col. W. H. Stone, the oldest pioneer of Galena, and one of the widest known and most successful lead and zinc mine operators in the United States, is the man to whom the "discoverer of Galena" told his geological secrets.

Col. Stone relates the following strange story of the discovery of the Kansas lead and zinc fields—fields that during the last six months have become the Mecca of zinc miners in every part of the world:

"In April, 1877, I, in company with several marshals and deputy marshals came from St. Louis to southeastern Kansas in pursuit of cattle thieves who had for some time been stealing cattle belonging to the man for whom I worked at Kansas City. During this trip our little party camped for several days on the very ground where Galena has since been built. There was then not a single house for more than a mile in any direction from our camp. Joplin, Mo., seven miles to the east, was the nearest town. It was then a thriving little lead camp, but as yet no zinc had been mined there.

"One day two outlaws were discovered at Joplin, and the citizens of that place immediately gave them an urgent invitation to 'quit camp.' This invitation was accepted without ceremony, the outlaws turning their faces toward the west. They passed directly over the present site of Galena, and beyond it a short distance they made a discovery of surface lead ore. Reports of this discovery soon became noised about Joplin, and people flocked to the new find in hundreds. Our camp was within sight of the main congregating place of the men as they daily came over from the Missouri camp to prospect.

"The excitement constantly increased, until a thousand men, more rather than less, assembled each day on the slope below our camp. I myself became imbued with the spirit of things, and while the marshals were away in pursuit of the cattle thieves I would often join the throng of fortune hunters. It was during my second trip down the slope that I first saw the man who has figured so much in my destiny, as well as in the destinies of hundreds and thousands of others interested in the Kansas lead and zinc fields.

"Our meeting happened in this way: I was sauntering along among the miners, giving little heed to anything in particular, and noting things only in general. Having just come from a city, my clothes were very different from those of the men about me. In fact, I was the best-dressed man in all the crowd. Then, too, I was not tanned and callouseed by outdoor exposure, and my appearance was quite different from that of the miners. As a result of this difference, I was noticed, perhaps, more than any other man in the crowd.

"Well, among the men I saw one strange, sad face, browned by the sun, and yet intellectual in every lineament—a face full of kindness and wonderfully sad. It was the most attractive face that I had ever seen, and I dare say that even the most unintellectual man in all that throng of people must instinctively have said, at first sight of it, 'Here is a wonderful character.'

"I could scarcely look away from the man—that face. He, too, seemed to look much at me, although doubtless from widely different reasons from those attracting me toward him. His hands were hardened, and his clothes were such as the miners wore. His hair was dark, and yet streaked with gray. I believed him to have been a man who had seen at least fifty years of life and just as much of sorrow.

"We did not speak—we simply looked at each other.

"On the day following I was again mingling with the men—not now as a general observer with little interest in anything—I was looking for a face. After weaving in and out among the men for more than an hour I suddenly came face to face with the 'stranger' again. I don't know why I looked for him; I don't know why he spoke to me when we met, but I do know that our meeting brought about the discovery of the richest zinc mines in the world. It caused to be written one of the most interesting and important chapters in the history of the great West.

"We sat down together, as if by common consent, although neither of us had said as yet more than 'good morning.' For a moment neither spoke. Then he inquired if I was a detective. I replied that I was not, that I was simply passing through the country on my way to Indian Territory. I asked him his name, but he pretended not to hear me. I asked him where he lived, and he looked away and began talking of the prospects of finding ore where the men were working. I was more than ever interested to know something of the stranger with whom I had met, and I made repeated attempts to ascertain his name or residence—all with the same unfruitful result.

"When he spoke of the geological formation of the place, where the greater part of the work was being done, I realized in a moment that he was a man of high culture. His language was pure and beautiful. He seemed, moreover, to be a profound scholar, especially along the line of geology. He did not try to display his learning in using geological terms, but talked so simply about everything, and yet so learnedly, that I almost fancied that he was looking into the very ground as he spoke. As we sat there talking a great crowd gathered about us, and we became the observed of all observers. The stranger (for such I have always called him, although he proved to be a most beneficial friend to me) said that the people took us for rich mining promoters. He expressed the opinion that they were digging in the wrong place to find mineral. He seemed very positive in his views. 'Do you know,' said he, 'that this country has a regular geological formation, and that rocks and minerals are in place here just as much as they are in the great camps of the Rocky Mountains? Even though mineral has been found here only in pockets, there is one law governing all the deposits, and things have not occurred here by chance, as most people suppose.

"We separated, after talking for perhaps two hours. On the following day I met him again in the crowd, and we sat down together as before. I noticed that his eyes were red as if from weeping, and his face seemed very sad. He did not talk much, but looked away, as if from some object in the distance. It seemed that he had sustained a great grief, and I determined to know more of his history. At this time I said but little, and he soon arose and walked away from the crowd. After a while he returned, and this time it was quite evident that he had been weeping.

"He sat down beside me and I asked him if he had received bad news from home. At this he looked away, and made no reply. I could not get him to reveal even so much as a suggestion as to his past, expecting only as his scholarly conversation proved him to be a man of great learning.

"'This is not the place to dig,' he said rather impulsively. 'I know the place to dig, and it is quite a distance from here.'

"'Can you prove to me that this district has a regular geological formation?' I inquired. 'A formation by which veins may be traced and the location of minerals be more accurately determined?'

"'I can,' was the laconic reply.

"At this time a belief came to me that the man was trying to enthuse me with his mining talk for the sole purpose of obtaining money from me. I therefore resolved to be cautious. I asked him if he would show me where rock was in place in the district, and where I might myself trace an absolute geological formation at the surface. After studying a moment, he replied that he would.

"'How much will you charge me?' I asked.

"Again he studied, turning his face away. Suddenly he arose and started to leave me. His actions were very strange. He had not gone further than three or four yards, when he turned shortly about and came back to me.

"'Would $5 be too much?' he inquired, hesitatingly.

"I was thunderstruck. I had expected him to say at least $100, and perhaps much more. I told him that I would gladly give him $5 to show me where the formation was plain at the surface.

"'Shall we go now?' I asked.

"'No,' he replied. 'This whole crowd would follow us. These people are watching our movements. They consider them to be of importance. Let us meet to-morrow at some place in the woods, and then, keeping out of sight of these men, we can see the rock in place. I am going to Joplin to-night, and shall return at any time that you may specify.'

"'I am going over to Baxter Springs,' I said, 'and expect to return on to-morrow morning's stage.'

"'In the woods off yonder,' he said, 'you will find a little deserted log cabin near the stage road. When you get to that cabin have the driver let you out. I shall conceal myself among the trees beyond and wait for you. You will find a little path leading down a ravine from the cabin. Take that path. If you are alone I shall whistle to you—if not, I shall remain quiet.'

"We agreed upon this plan, and soon after separated for the night, he going to Joplin, Mo., and I to Baxter Springs, Kan.

"On the following day, as agreed, I left the stage at the lonely cabin in the woods, just to the east of where Galena has since been built. I was alone. I found the little path that the stranger had asked me to take. The woods about it were then, as now, quite dense, and I moved with some care that I might not lose the path, which seemed to be travelled but little. At last I heard a whistle, and answered it. Below me in the path stood the stranger.

"'Are you afraid to go through this wood with me?' he asked, looking me directly in the eye. The idea of fear on this occasion had not before come to me, but his words seemed so queer that I rather startled them as omitous of evil. I put on a bold front and replied emphatically:

"'Afraid! No, why should I be afraid? I'm armed!'

"We walked on, saying nothing. I simply followed where he led. After winding about for perhaps thirty minutes, I came to the conclusion that the stranger was a fraud—that while he was very wise he was at the same time very dishonest.

"At last he paused at a large flint boulder.

"'Observe this rock closely,' he said. 'Here begins our formation. Let us go straight on to that other rock yonder.'

"When we reached the second rock the stranger pointed out a third one still further on, and in direct line with the two we had just examined. We went to the third rock, and there was still a fourth, fifth and sixth beyond—all in a direct line. They were close together, almost forming a natural stone fence. The croppings were as plainly discernible as the rows of corn in a field. It was a vein in place and we traced it for half a mile.

"As we went along the stranger became greatly animated, and here and there pointed out places where he was sure deposits of rich ore could be found. I designated these places by throwing up little piles of rock; and thus we went on, he telling all the while of the possibilities of the country. He did not speak as one guessing, but as one knowing. His words carried conviction.

"We were several hours in marking the places where he was positive that mineral lay in rich deposits. When we came to the edge of the woods and looked off toward the west we saw the men at work.

"'Let us not be seen together here,' he said. 'You go around that way (pointing toward the north) and I'll go down this little draw.'

"In less than an hour we met again together in the crowd. With his help I drew a map of the land we had just visited and designated the places where he had told me to dig for ore. I paid him the $5, and he thanked me as if he were satisfied, although he acted with indifference when I spoke to him of money matters.

"On the following day I made arrangements to purchase eighty acres of land along the big flint vein or dike, and on the second day I again met the stranger in the crowd. I told him what I had done in regard to buying the land, and he said: 'It will make you rich. It will bring fortunes to many.' I told him that I had decided to give him an interest with me in the property. At this he turned away his head, and when he again looked at me there were tears in his eyes.

"'Sir,' he said, 'I do not care for money. I do not even care for life itself. Once I had a home—a splendid home. I had a family—a wife and two beautiful daughters. I held the chair of geology in one of the greatest universities in America. I was a man of financial means, a man of honorable reputation, a happy man. In twenty-four hours I became deprived of family, home, position and honor. I became a wanderer. I have spent years in the great mines of the mountains, but my sorrow is no lighter. The land that I have pointed out to you will make you rich. Around it will be opened one of the greatest mining districts in the world. Homes will here be made for thousands of prosperous people, but I shall never share the fruits of my accumulated knowledge of geology. You have paid me $5 for that which will some day have produced many times that many millions.'

"He ceased speaking, and a long silence followed. He arose and left me without another word.

"Now for twenty-two years has that strange, sad face haunted me day and night. I have done everything within my power to obtain the slightest clue to the whereabouts of that man to whom the people of the Kansas lead and zinc fields owe so much. Others have helped me in my efforts to find him. Those of us who have prospered most from his knowledge are willing now, as we have been through all the years, to share with him his hard earnings. My conscience tells me that the man is the rightful heir to at least a million dollars from the profits of the property which he himself discovered and caused to be opened up. Should he return to Galena the town would be forever his."

FEATHERED ACROBATS.

The Ravens of a Pacific Island—Their Cork-Drawing and Chicken-Stealing.

SANTA CATALINA, Cal., July 4.—"If you want to see the feathered acrobat of the world look at this," said an old islander who lived up a deep wooded cañon.

The visitor took the proffered glass and levelled it in the direction indicated. There was a stiff breeze blowing from the north, which formed a strong current up the cañon, and on it were coursing a number of ravens; now rising, now plunging downward to rush up against the wind, presenting a fine exhibition of flight and its possibilities. The birds seemed to have gathered for the purpose of exhibiting their powers, but the most remarkable evolution would have been missed had not the opera glass been at hand. With it the birds could be seen starting from the side hill, sweeping around the curve into the cañon. The moment they met the full current they turned as complete a somersault as does a tumbler pigeon, with this difference, the latter cannot help himself, while the raven performs the trick for the mere pleasure of it. Sometimes two birds would roll over and over in the air together without apparently a break or movement of their feathers—a most remarkable and interesting spectacle.

Visitors to Santa Catalina Island often remark upon the number of crows seen here; but the birds are not crows, but ravens—fine, large, glossy fellows, that sit around on the fences and hills and pull corks innumerable, just as did Grip for Barnaby Rudge and Dickens. These ravens have been known in history for several hundred years, being described first by Father Torquemada, the confessor of the adventurous Vizcaino. This historian mentions the birds as being great thieves, and having such supreme contempt for the native women that they alighted by their sides when they brought in fish and snatched them from their hands; and as the birds were considered sacred the women did not dare to touch them.

To-day the island ravens are still thieves, and the manner in which they prey upon young chickens and turkeys commands the admiration of the observer if not of the owner. Two birds generally address themselves to the prospective victim, which, in one instance observed, was a hen with a large brood. One raven flew down on one side of the hen and began a grotesque dance, hopping on one leg, then on the other, acting in such a manner that the old hen immediately dropped her wings and charged on the intruder. This left the field clear for the other raven, a party to the scheme, which swooped down and carried off a chicken. When this had been devoured the two birds returned, and, probably changing places, played the same game so successfully that during the afternoon several chicks were stolen, the mother hen presumably never seeing through the trick.

These birds are remarkably imitative. A young raven kept by a shopkeeper sat by its owner one day watching him take some screws from a box, arranging them in certain order according to size, after which they were replaced. The man soon after left the office, but on hearing a noise returned quietly to find that the raven had taken the screws from the box and was arranging them as nearly as possible as he had done, showing a remarkable imitative faculty as well as thieving propensity.

THE TIGER OF THE OCEAN.

STRENGTH AND FEROCITY OF THE HAMMERHEAD SHARK.

His Power of Destruction Exhibited Best in Tropical Waters—One That Towed a Whale and Another That Handled a Bull—When He Turns on the Hunter—Trap in Which He Is Taken.

"Sailor though you may have been for a score of years and never given cause for a man to call you coward, there comes a time when you feel the creeps and your knees grow weak," said a man who was a whaler once. "That time is when you look over the rail of a ship rising and falling on a calm sea and find a big hammerhead shark looking up into your eyes. The white shark is voracious and merciless, but the tiger of the sea, as the hammerhead is called, is worse than that. He is the most repulsive looking fish that swims. He will take up the trail of a ship like a bloodhound, and his persistency is menacing and malignant. A white shark can be frightened or beaten off even after seizing his prey, but the hammerhead shuts his jaws like a bulldog and will be cut to pieces before he will let go. A man in the water may dodge the rush of a white shark, but the tiger never misses his mark. He hasn't the speed of the other, but it is his slower gait which makes him more certain of his victim.

"While the hammerhead shark may be caught all along the Atlantic coast, his true cruising grounds are in the tropical seas. To get among the big ones you must voyage up the Bay of Bengal or coast along the great barrier reef of Australia. You will find the white shark there, too, but the two species never run in the same school. I do not know that they quarrel when they meet, but certain it is that they avoid each other. It is seldom that a big shark is caught in Northern waters, but in the tropical seas a twelve-footer, either white or hammerhead, is looked upon with contempt. One day, as the ship White Wings was becalmed about fifty miles off the coast of Madagascar, a hammerhead shark of such size appeared alongside that he was at first taken for a whale. He remained with us for over an hour, lying like a log on the water, and it was easy to get his dimensions, or at least his length. He was exactly thirty-three feet long and about the size of a flour barrel. If a towline could have been made fast to that fish he had the horse-power to enable him to drag us along. While the white shark is swifter and more supple, the hammerhead has more of what might be called pounding power. As an illustration of what he can do out of the water I will cite the case of an Australian coasting schooner called the Wanderer. I was in the whaling ship Paul Jones and we were anchored off one of the Kangaroo islands, on the east coast, to wood and water. The Wanderer, which was northward bound, came to anchor quite near us to make good some damage received aloft in a squall. The water was alive with hungry hammerheads, and the captain of the coaster put over a hook. A shark eighteen feet long soon took it and after half an hour's hard work was hauled over the rail. The fish seemed to be played out as they hauled him in, but no sooner did he feel the deck under him than he began business. The blows he struck with his tail could have been heard a mile away, and when he springing into the air and fell back there was a crash which told of splintered planks. In ten minutes that fish almost made a wreck of the schooner. He smashed bulwarks, shivered planks, and broke stanchions like and crushed or upset the small boat, and the tragedy at Batavia, happening only four years ago, was convincing proof that he is a dangerous foe. A boat with five men in it hooked a big hammerhead, and after running out 100 feet on the line the fish turned and rushed. As he neared the boat he leaped clear of the water and landed among the men. In less than one minute he had beaten out the bottom planks of the boat with his tail, and of the four men who met death two, at least, had broken legs or arms before the shark rolled out of the wreck and went his way."

MR. BOBBLETON PACKS UP.

Shows His Wife How to Get Out of Town in a Rush on His Vacation.

With nervous haste Mr. Bobbleton rushed into his flat where his wife was giving the dinner a finishing touch.

"Well, Mary, it's come at last," shouted Bobbleton, throwing down his hat and dropping tired and hot into the nearest easy chair.

"You don't mean to say that you have lost your place at the bank?" faltered Mrs. Bobbleton.

"Lost my place? No, not at all! I mean that my vacation has come at last, and that we are going to start to-morrow morning for the country. I bought the tickets on the way home, and here they are!"

Bobbleton flourished two long green slips of paper, and marked at one end, "Good for thirty days."

"They look long enough to go to Denver with," replied Mrs. Bobbleton. Then she added, with a shade of concern in her voice, "But, Henry, I can't get ready in time. A man can put on his hat and walk right away. With a woman it's different. I want to look well, you know, for the Davises and the Fowlers are at Daisy-Town-in-the-Mountains."

"Who cares for dress when its ninety degrees in the shade," said Mr. Bobbleton, recklessly.

"But, Henry, a woman must dress. Society expects and demands it."

"Oh, hang society," replied Mr. Bobbleton. "Society cuts no ice with me."

"Well, I'll do the best I can," replied Mrs. Bobbleton in a resigned sort of way. "But for goodness sake, Henry, don't put everything off until the last minute. We want to have the two trunks packed without delay."

"And so they will be," answered Mr. Bobbleton. "The baggage expressman will be here at 9 o'clock in the morning for the trunks. I'll pack my trunk right after dinner. It won't take me over an hour."

"I'm mighty thankful that the wash came to-day," said Mrs. Bobbleton, as they sat down in their little dining room. "We'll have enough clean clothes to last us, anyhow."

"Yes, that's nice," replied Bobbleton.

Immediately after dinner Mr. Bobbleton went into his room. For the next hour or two Mrs. Bobbleton heard him slamming around, upsetting things and muttering to himself.

"I wonder how Henry is getting along?" thought Mrs. Bobbleton.

Yet she did not dare go into his room, for there are times when Mr. Bobbleton becomes highly irascible and consequently dangerous to approach. About half past 9 Mr. Bobbleton emerged from his room very hot, but still triumphant.

"That's the way to do," he said. "Pack up in a hurry without any fuss and feathers. Why, I could get ready to go to Europe just as easily! You women don't know how to do anything! My trunk's all ready to go."

"So is my trunk," said Mrs. Bobbleton quietly, as she banged down the lid and snapped the lock.

Early the next morning the expressmen were on hand for the trunks.

"Hawkins, the baggagemaster, is a particular friend of mine," Bobbleton explained to the expressmen. "Just tell him to check these trunks to Daisy-Town and to hold the checks until I reach the station. I want the trunks to go out on that 7.55 train. We follow on the 8:40."

When the expressmen had departed Mr. Bobbleton turned back into his flat and said to Mrs. Bobbleton:

"There! That's the way to do!"

"But are you quite sure you did everything just right; that you didn't leave anything out or tack up anything you will need?"

"Mary," replied Mr. Bobbleton, severely, "don't you think I know my business?"

About an hour later Mrs. Bobbleton heard her husband storming around his room.

"I wonder what's the matter now?" she thought.

Just then Bobbleton came out of his room very red and very angry.

"What's the matter?" asked Mrs. Bobbleton.

"Have you seen my blue serge vest?"

"No, I have not."

"Well, I can't find it anywhere. It had two weeks' salary and the railroad tickets in it!"

"You mislaid it in your room."

"Mislaid nothing. I didn't."

"Then you tucked it up in your trunk."

Mr. Bobbleton groaned. Then he sank feebly into a chair.

"By thunder, so I did!"

"Henry!"

"It's true. I haven't another cent with me. The tickets are no good to us now. I'll have to get them redeemed, I suppose, if we ever get them back again."

Mr. Bobbleton jammed his hat on his head and went out. In twenty minutes he was back again.

"I borrowed $20 from Pillets, the corner druggist. Let's get out of here."

"I'm so sorry you packed up that vest, Henry," said Mrs. Bobbleton timidly.

"What do you think I feel like?" snorted Mr. Bobbleton, as he hailed a passing car.

ANOLD THEORY EXPLODED

FOOD NOT DIGESTED IN THE STOMACH

This Organ Only Prepares It for Assimilation by the Intestines.

A COMPLETE CHANGE OF TREATMENT

Must Now Be Made Before We Can Hope to Cure Dyspepsia in All Its Forms.

Until a few months ago the medical profession, as well as the public at large, have always believed that food was digested in the stomach; but, thanks to science, they are now enabled to follow the whole process of digestion with their own eyes from the moment food enters the mouth until it is taken into the system, or carried off through the bowels. Heretofore all remedies for the cure of dyspepsia have been given with the idea of assisting the stomach to digest food, and the discovery that this organ does not digest it at all explains the cause of their failure to cure the disease and its constant increase in spite of the thousand and one remedies used. Another and equally important discovery was also made—that there are three distinct kinds of dyspepsia, two of which require different remedies, and the remedy for one must be exactly opposite to that of the other in character. For instance, acid dyspepsia requires