

SAVED BY A HAIR.

It was a dark, stormy night without, and I drew my chair closer to the fire as I sipped my tea, and regaled myself with the news of the local column of the evening paper. As the storm and aleet rattled furiously against the window, and pedestrians hurried by, anxious to reach a place of shelter, I felt thankful that I was not obliged to leave my comfortable home for the night.

"What's this?" I said, as my eye alighted on a startling paragraph.

"MYSTERIOUS MURDER!—John Randolph, one of our old and wealthy citizens, was this morning found dead in his room, having been murdered during the night by some unknown person. Edgar Morton, a clerk in his employ, and who, reports say, was soon to be married to his daughter, has been arrested for the murder, and circumstances are said to be strongly against him."

Now, although I am usually among the first to hear of criminal news, from the nature of my business, this was the first intimation I had received that such a murder had been done. This seemed very strange, as I was on the best of terms with Mr. Randolph and his whole family.

"And so this is the way that Edgar Morton repays the benefactor of his youth and soon-to-be-father! Yet no," I cried, "I will stake my life on that young man's innocence."

As I spoke there came a gentle tap at the door, followed almost immediately by the entrance of a lady, deeply veiled, who at once threw aside the veil, disclosing to me the features of my deceased friend's daughter, Cecile Randolph.

"Excuse me, Mr. Fergusson, for entering uninvited; but urgent business must be my only excuse."

"Be seated, Miss Randolph," I said rising and handing her a chair.

"Oh, Mr. Fergusson!" she sobbed forth, burying her face in her hands; "that I should ever be obliged to come to you on such an errand as this!"

I endeavored to quiet her, and partially succeeded, when I drew from her what few remarks she knew regarding her father's death.

"He retired last night at his usual hour, apparently in good spirits, and no sound was heard during the night to cause any alarm. In the morning as he failed to appear at breakfast, a servant despatched to summon him. Knocking at the door, and receiving no answer, he finally opened it, and advanced into the room. What a sight did he behold! My poor father lay upon his bed, with his throat cut from ear to ear! Death must have come to him suddenly—so suddenly as to prevent any outcry—and the unknown assassin had no trouble in making his escape."

"But," I said, "I can't see why anyone should suspect Edgar of the murder."

"That is the most mysterious part of the sad affair. This morning, when Edgar was told of the murder, he turned very pale, reeled and would have fallen to the ground had no support been given him. Some of the ignorant beholders of this scene thought his actions denoted guilt, and an officer was summoned, who at once insisted on searching his room. A razor, on which were several spots of blood, was found concealed under the carpet, together with an old suit of cloths belonging to Edgar, which were bespattered with blood. This was considered sufficient evidence to warrant his arrest, and he now lies in jail, charged with the awful crime of murder. Oh, Mr. Fergusson, if you can do anything to save him, and at the same time bring the guilty perpetrator of this deed to justice, I will amply reward you."

"Do you know of any enemies of your father, or of Edgar, who would be likely to commit such a crime, either for robbery or revenge?" I asked.

"Oh, sir," she replied, "It was not for robbery, as everything in the room was as father left it the night before. His watch and pocket-book, the latter containing quite a large sum of money, were found under his pillow, where he always placed them; so that the crime must have been committed to gratify a fiendish thirst for revenge."

"Now, then, who of all your acquaintances could do such a thing?"

"I cannot possibly say. Father had not an enemy in the world to my knowledge; but my father's bookkeeper and trusty clerk; but it would be impossible for him to do such a deed."

"Only this, some time ago, Conrad, whom we have always regarded as one of the family, proposed for my hand, and I told him it was not mine to give. 'I suspected as much,' he muttered. And then, whilst his face grew dark as night, and his features assumed an appearance perfectly fearful, he continued: 'But you shall never become the wife of Edgar Morton, whilst I have life to prevent it.'"

He then wheeled about and abruptly left my presence. I was considerably alarmed, and thought of speaking to my father about it; but during the afternoon, he returned and begged my forgiveness for the words he had used, and made such professions of sorrow in regard to them, that I freely forgave him, and have since thought no more of the matter."

"The fact is quite clear to me," I said. "I know this fellow well, and the sort of company he keeps, and I should not be surprised to find that he committed the murder. Now,

then, I want to see the body of your father, and the room in which the deed was done."

"Well, sir," she said, rising and preparing to accompany me, "you will find everything as it was when first discovered. The officer concluded not to disturb anything until after the inquest which takes place to-morrow afternoon."

Wrapping myself up in my great coat, we set out, and after a brisk walk of ten minutes, reached the palatial residence of my companion. I was at once shown to the room of the murdered man, and then began making such an examination as only a detective knows how to make. Circumstances of the most trivial character, which would be overlooked by an ignorant person, are often seized upon by a skillful detective, and sometimes constitute the most damning evidence of guilt. In this case, however, everything had been done in the most skilful manner, and I could not succeed in making any discoveries.

I was about to leave the room in despair, when glancing towards the bed, I noticed what appeared to be a scratch on the neck of the murdered man, just upon the gaping wound which had so cruelly let out his life's blood. On examination, I found it to be nothing more than a hair which had, in some manner, probably become loosened from the head of the assassin, and had settled on the neck of the victim, where it now lay, a silent, yet truthful witness pointing out the guilty to the eye of justice. The hair was of a deep red color, which was yet totally unlike that of any of the household. It was, indeed, the same color shade of that of Conrad Smithers.

I placed it carefully in my pocket-book, and saying nothing to anyone of my discovery, started for the house of Smithers, intent on doing a little act. I found him, as his attendant said, ill in bed, and on no account must be disturbed. "This sickness is but a ruse," I thought to divert suspicion. Telling the woman that I wanted to see him for a moment, on the most urgent business, she finally reluctantly consented to my entrance. I found him lying upon a bed, apparently in great pain. In my youth I had studied medicine, and was consequently well-informed on such matters, and I saw at once, with a quick glance, that he was only feigning sickness. He started up somewhat angrily, as I entered but I silenced him with a motion of my hand.

"Conrad Smithers, this is a desperate game you are playing, but it will avail you nothing."

"What do you mean?" he exclaimed springing to his feet, his sickness all gone.

"I mean that the game is up, and the murderer of John Randolph is discovered."

Thrown completely off his guard, as I had anticipated, he sank into a chair, and burying his face in his hands, sobbed out—

"Lost! lost!"

"Do you confess the murder, then?"

"I do," he answered, "now that concealment is no longer of use."

I took him at once into custody, and had the satisfaction of seeing him change places with Edgar Morton, who was overjoyed at his release.

Cornard Smithers was tried for the murder, and knowing any defence would be useless after his confession to me, pleaded guilty, and threw himself upon the mercy of the court, which sentenced him to imprisonment for life.

About a year after, I received an envelope containing an invitation to the wedding of Cecile Randolph and Edgar Morton, who lived long and happy together, and never ceased thanking me that Edgar was "saved by a hair."—*Keystone.*

SCIENTIFIC.

HOW TO SEARCH FOR METALS.

SEARCHING FOR GOLD.

The paying localities of gold deposits are the slopes of the Rocky and Alleghany Mountains. Gold need not be looked for in the anthracite and bituminous coal fields, nor in limestone rock. It is seldom found in the beds of rivers. The thing itself is the surest indication of its existence. If soil or sand is washed, and the particles of gold are not heavy enough to remain at the bottom, but float away, the bed will not pay.

Along streams rather high up among the mountains, and in the gravelly drift covering the slopes of the valley below, are the best prospects. Where the stream meets an obstacle in its path, or makes a bend, or has deep holes, there we may look for "pockets" of gold. Black or red sands are usually richest. Gold-bearing rock is a slate or granite abounding in rusty-looking quartz veins, the latter containing iron pyrites or cavities. Almost all iron pyrites and silver ores may be worked for gold. When the quartz veins are thin and numerous rather than massive, and lie near the surface, they are considered most profitable. Few veins can be worked with profit very far down. As traces of gold may be found almost everywhere, no one should indulge in speculating before calculating the percentage and the cost of extraction. Gold hunting, after all, is a lottery with more blanks than prizes.

The substances most frequently mistaken for gold are iron pyrites, copper pyrites, and mica. The precious metal is easily distinguished from these by its malleability (flattening under the hammer) and its great weight, sinking rapidly in water.

SEARCHING FOR SILVER.

This metal is usually found with lead ore and native copper. Slates and sandstones intersected by igneous rocks, as trap and porphyry, are good localities. Pure silver is often found in or near iron ores and the dark brown zinc blends. The Colorado silver lodes are porous at the surface and colored more or less red or green. Any rock suspected of containing silver should be powdered and dissolved in nitric acid. Pour off the liquid and add to it a solution of salt. If a white powder falls to the bottom, which, upon exposure, turns black, there is silver in it. Silver mines increase in value as in depth, whereas gold diminishes as we descend.

SEARCHING FOR COPPER.

The copper ores, after exposure, or after being dipped in vinegar, are almost invariably green on the surface. They are most abundant near trap dykes. The pyrites are generally found in lead mines, and in granite and clay slate. Copper very rarely occurs in the new formations, as along the Atlantic and Gulf borders, and in the Mississippi valley south of Cairo.

SEARCHING FOR LEAD.

Lead is seldom discovered in the surface soil. It is also in vain to look for it in the coal region and along the coast. It must be sought in steep hills, in limestone and slate rocks. A surface out by frequent ravines, or covered by vegetation in lines, indicates mineral crevices. The galena from the slate is said to contain more silver than that from the limestone. The purest specimens of galena are poorest in silver; the small veins are richest in the more precious metal. A lead vein is thickest in limestone, thinner in sandstone, and thinnest in slate.

SEARCHING FOR IRON.

Any heavy mineral of a black, brown, red, or yellow color may be suspected to be iron. To prove it, dissolve some in oil of vitriol and pour in an infusion of nut gall or oak bark; if it turns black, iron is present. If a ton of rich magnetic ore costs more than \$4 at the furnace, good hematite more than \$3, and poor ores more than \$1.50 or \$2, they are too expensive to pay, unless iron is unusually high. Deep mining for iron is not profitable. Generally speaking, a bed of good iron ore, a foot thick, will repay the cost of stripping it of soil, etc., twelve feet thick. Red and yellow earths, called ochers, contain iron. Magnetic ore is easily found by a compass.—*Underground Treasures, by Prof. James Orton.*

MAGNETIC IRON.

Magnetic iron ore, or "magnetite," received its name in early times from its magnetic properties. A mass of the ore influences the needle at a great distance. The magnetism of the ore is polar, the same side which repels one end of the needle attracting the other, and vice versa with the other side. It crystallizes in the cubical system, the octahedron and rhombic dodecahedron being common forms. It occurs in Sweden, Norway, the Ural Mountains, etc., and on a very much smaller scale in England. In the southeast corner of Dartmoor, a band of this kind of ore deranges a compass as it is carried past its vicinity, and sailors say that there is a place in Cardigan Bay where, on passing a reef of rocks, the needle is influenced, and set oscillating. A large mass of this deposit in the southeast extremity of the Island of Elba has a similar effect; in Sweden, too, deposits are discovered by means of this property. Meteorites frequently contain a percentage of iron greater than magnetite, associated with nickel and chrysolite in some cases; but the rarity of their occurrence precludes them from being classed as iron-ores, by which term we understand a mineral containing iron in sufficient quantity to be economically and advantageously extracted.

PORTABLE DRY INK.

At a recent meeting of the Frankfort Polytechnic Association, Professor Boettger exhibited a novel kind of ink, which is admirably adapted to take on journeys and exploring expeditions. White blotting paper is saturated with aniline black and several sheets are pasted to form a thin pad. When wanted for use, a small piece is torn off and covered with a little water. The black liquid which dissolves out is a good writing ink. A square inch of the paper will give enough ink to last for considerable writing, and a few pads would be all that an exploring party need carry with them. As water is always available, the ink is readily made.

TO CLEAN SILVER.

Dr. Eisner says that hot water poured off potato parings or boiled potatoes is admirably adapted to clean silver. The objects can be easily rubbed by the fingers with the settlings of potato meal, and they become as bright as they usually do when rubbed with tripoli. The process is particularly advantageous for engraved and raised objects, where the powder is liable to collect in the cavities. German silver and plated ware can be cleaned in the same way. Potato water which has become sour by long standing can be substituted for acids to clean copper vessels.

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HUMOROUS.

ONE FOR HIS GRACE.

An amusing story is told of an English nobleman, recently deceased, by the *English Sporting Gazette*—

The Duke was once in church, no matter where, when a collection was announced for some charitable object. The plate or bag or whatever it might be, began to go round, and the duke carefully put his hand into his pocket and took out a florin, which he laid in the pew before him ready for transfer to the plate. Beside him sat a little snob, who, noticing his action, imitated it by ostentatiously laying a sovereign alongside the ducal. This was too much for his grace who dipped his hand into his pocket again and pulled out another florin which he laid by the side of the first. The little snob followed suit by laying another sovereign beside the first. His grace quietly added a third florin, which was capped by a third sovereign on the part of the little snob. Out came a fourth florin to swell the Duke's donation; then the little snob triumphantly laid three sovereigns at once upon the board. The duke, not to be beaten produced three florins. Just at this moment the plate arrived. The little snob took up his handful of sovereigns and ostentatiously rattled them into the plate, then turned defiantly towards his rival, as much as to say, 'I think that takes the shine out of you.' Fancy his chagrin when the Duke, with a grim smile, put one florin into the plate and quietly swept the remaining six back into his pocket. His grace used to chuckle when he told the story, and I think, on the whole, he had the best of it.

BANKRUPT LAW.

"Sambo, what your 'pinion ob de bankrupt law?"

"Tink um fus rate, Pompey."

"I imply for the appellation meself. Just explain him's principles."

"Why you see here now, just len' me dat half dollar you got for whitewashing."

Pompey hands him the money, and Sambo deliberately puts it into his pocket.

"Dere den, naw, I owes the shoemaker three shilling, and you half a dollar, besides de grogshop bill. Now, dis half dollar am all de property I got. I divides him according to de debt."

"Sambo, I takes dat half dollar back."

Sambo, with amazement, "You tink dis chile green? You gits yo share with de oder creditors."

Sambo was as honest as some others.

WHERE SHE LEARNED THE METHOD.

A paper published in Sacramento, Cal., gives the following: Yesterday a young lady called at the counter of the registry department of the post office and asked for the privilege of reopening a letter which she claimed to have dropped in the box that morning. The post-master, after finding the address and taking a particular description of the missive sought, obligingly searched among the letters in the "drop," and finding the letter, proceeded to open it in the presence of the writer. In doing this the official used a common lead pencil, but the lappel of the envelope was stuck to "stay stuck," and a general mutilation was imminent. Observing the unprofessional method, the lady said, decidedly, "Give it to me; let me show you." The letter was handed over, when the fair manipulator deftly ran the thumb nail under the edges of the lappel, raising it neatly. Following this up with delicate touches in kind, it soon became apparent that the opening, without leaving a trace of the manipulation, was only a question of time. The postmaster and his deputy looked on in charming and innocent interest. The performance was a high art; a deft facility eloquent of patient practice. Neatly the work was done, and, as the careful opening was completed, the lady remarked, by way of explanation merely, and lest some inference unfavorable to the legitimacy of this skill might be drawn, "I used to be in a post office myself, you see; I learned how it's done as you know."

AN OLD-FASHIONED MOTHER AND A NEW-FASHIONED BOY.

Some time ago, a Mrs. Buckleby, who lives over in Berrien county, Mich., directed her son Samuel, a lad of 14 years, to take a turn at the churn. Now, as Samuel had set his heart on going a fishing at that very time, he "got his back up" and flatly refused to agitate the cream. The curvative was promptly taken out of his spine by a slipper, and, with "tears in his eyes," he went on duty with the dasher. In about half an hour, and during the brief absence of his mother, his eyes fell upon a plate of fly poison, and a bright, smart thought struck him. Just before Mrs. Buckleby came in, Samuel lifted the fatal platter to his face, and as she entered he put the "poison" from his lips with the dramatic exclamation: "There mother, I guess you won't lick me no more!" Now what did this Spartan dame do? Did she shriek for a doctor and fall into hysterics? Not much. She simply took Samuel by the nape of the neck, lifted him deftly into the pantry, beat the whites of six eggs together, and told him to engulf the same instantly; he refusing, she called the hired girl, and in a twinkling Sam found him-

self outside the albumen. Then Mrs. Buckleby began preparing a mustard emetic. Seeing this, Sam's pluck dissolved, and he commenced begging, crying, "I was only tryin' to stop 'em." But the stern mother was not to be softened, and Samuel had to swallow the mustard. He was then forced to take a dose of painkiller, and had his back rubbed with "Vigor et Life," and his stomach with the "Oil of Gladness." Then he vomited up everything but his boots and socks. When being over, he took seven Ayer's pills, a spoonful of castor oil, a spoonful of molasses and a blue pill. And now, if you want to hold the maddest boy in Michigan just say "fly-poison" to Sam Buckleby.

MARRYING FOR MONEY.

An extremely intelligent American gentleman from the West once walked into the office of Dr. C. T. Jackson, the chemist. "Dr. Jackson, I presume?" said he. "Yes, sir." "Are you alone?" "Yes, sir." "May I lock the door?" And he did so; then, having looked behind the sofa, and satisfied himself that no one else was in the room, he placed a large bundle, done up in a yellow handkerchief, on the table, and opened it. "There doctor look at that!" "Well," said the doctor, "I see it." "What do you call that doctor?" "I call it iron pyrites." "What!" said the man; "isn't that stuff gold?" "No," said the doctor, "it's good for nothing, it's pyrites." And putting some on the fire in a shovel, it soon evaporated up the chimney. "Well," said the gentlemanly man, with a woebegone look, "there's a widow up in our town has a whole hill full of that and I've been and married her."

SLEPT WITH HIS SPURS ON.

"Yes said the old man, with a smile, 'I remember one time in particular while out prospecting with an old friend about twenty years ago. We were travelling on horseback, and came across a tavern one night about ten o'clock. Being very tired and hungry, as soon as we got some supper and something warm to keep the cold out, we asked to be shown to our room."

On looking around we found the room had two beds in it, one of which was already occupied by two strangers, who were both snoring lustily. The fact of there being two beds in the room did not surprise us, as in backwood taverns there were frequently three beds in a room. We undressed, and just as I was going to blow out the light my friend, who had got into bed, espied the foot of one of the strangers sticking through the bed cloths at the foot of the bed.

With a suppressed chuckle he motioned me to hold on a moment; he got quietly out of bed, and going to where the stranger's boots were, he took off a huge, sharp Mexican spur, and carefully adjusted it to the bare heel of the unconscious stranger.

With another audible chuckle as he thought of the consequences that would follow when the stranger drew in his foot, he got back into bed, and I blew out the light and followed him. He soon managed to get a long strawl from the bed, and reached over and tickled the stranger's foot. He instantly drew his feet under the bed clothes, and then drew his legs up until his knees almost touched his chin. In doing this he drew the spur the whole length of his bed-fellow's leg, making a bad scratch.

The victim uttered a yell and sprang out of bed with a muttered exclamation that I did not make out, and then he commenced a wild dance around the room, with his nether garment under his arm, and making frantic efforts either to dislocate his neck, or see how badly he was hurt, all the while making exclamations that would have made a baggageman with a Saratoga trunk on his shoulder turn green with envy.

The innocent cause of the trouble had been awakened at the first yell of the victim, and straightening his legs out scratched himself most unmercifully. He did not yell, nor say bad words, but he jumped out of bed and made for his friend with the purpose of taking vengeance. I suppose he had not taken two steps before he jabbed the spur into his leg again.

The landlord then appeared with a light, followed by half the boarders in the house, inquired what the matter was.

An examination brought to light the spur, which explained the matter. The stranger looked sheepishly at the spur, then at his scratch, and finally at his boots, and with a sickly smile said:

"Well, boys, I have lived all my life among people who wear spurs, but I never before saw a man who could pull off his boot and leave his spur on his foot! I'll treat in the morning."

There is a clever lad in Binghampton who will get his living in this world, and no mistake. For playing truant, maternal authority cut of his supper. Casting one fond look at the authoress of his existence he paused at the door to say, Mother I'm going to die, and when I am no more, I wish the doctor to cut me open and look at my stomach. The maternal mind was filled with awful forebodings, and the maternal heart asked what he meant. I wish it to be known, he answered, I died of starvation. This was enough. The small boy was triumphant, and retired to his little bed gorged to repletion.