

Science AND Invention

The extremely sensitive test-paper of K. Dietrich is made by painting alcoholic solution of shellac and fluorescein on a black background. The slightest trace of alkali causes a characteristic green fluorescence, one part of ammonia in one million being detected.

The spectrum of lightning, which has been photographed at Harvard University through a telescope provided with an objective prism, is not always the same, but curiously resembles the spectra of new stars, such as that in Perseus. Many of the lines appear to be due to hydrogen.

Horses are shod with various materials. Most horse in Japan wear shoes of rice straw bound with ropes of the same material, and ponies in Iceland are shod with sheep's horns, and in other places with antlers of deer. Socks of camel's skin are sometimes used on horses in Egypt.

It is well known that some savage tribes are accustomed to obtain fire by the friction of dry wood, but white men trying the experiment usually fail. The method used by a native Indian tribe, the Yanadis, of Madras Presidency, is described in a recent bulletin of the Madras Government Museum. In a short stick a square cavity is made. The stick is then laid on the ground and held firmly in place by one operator, while another rapidly twists between his hands a longer stick, one end of which rests in the cavity. From the fire thus produced dry leaves or a rag can be ignited.

Our consul at St. Etienne, France, Mr. H. S. Brunot, furnishes interesting details concerning the manufacture and use of petroleum briquets as fuel. He says the briquets weigh only half as much as coal, and produce twice as much heat. They keep indefinitely in good condition, are in no way dangerous, give off no smoke or odor, and burn with a very white flame, eight or ten inches high. They consist of petroleum, either crude or refined, mixed with certain chemicals the precise nature of which is a trade secret, and solidified in molds under a pressure of 300 pounds per square inch. They cost about \$14 per square ton.

With the spread of American influence in distant parts of the world, the work of the government scientific bureaus is rapidly widening. Alaska and the Philippines have recently called forth extra efforts from the Coast and Geodetic Survey in charting the coasts of those lands. Without accurate charts the growing commerce nourished by the development of the mineral wealth of Alaska and the rich and varied resources of the Philippine Islands cannot be safely conducted. An idea of the amount of surveying and charting to be done may be formed when it is stated that our knowledge of a large portion of the coast of Alaska is still based on the information obtained by early explorers and navigators, while in the Philippines the existing charts "are truly Oriental in their untruthfulness."

ITALY'S ROYAL BABY.

Little Princess Yolanda is being carefully brought up.

The little Princess Yolanda of Italy is such a healthy and bonny child that she more than compensates Queen Helena for all the unpleasant criticism brought upon her by her resolution to bring her little one up according to the strictest rules of modern science. From the very beginning she astonished society by abolishing all sorts of foolish old customs, some of which are common to royal and wealthy families generally and others peculiar to Italy.

One of her most radical innovations was to do away with the swaddling clothes in which every Italian baby of good family is bound up. The princess was dressed in loose clothes, lightly sewn up. Customarily an Italian baby of rank is bound up from the neck to feet in tight bands. Over these is placed a dress of the most gayly-colored silks. The wet nurse wears a dress of the same colors.

When some ladies of the court protested against the queen's departure from ancient custom, she said: "Babies' legs were meant to kick with, and my baby's shall be free to kick."

The queen also abolished the custom of assigning ladies of the court, according to their rank, to various duties in connection with the baby. Only professional nurses of the highest ability are employed to look after her little girl. In addition to all these innovations she has put an end to the old custom of leaving the infant's tender neck and arms exposed.

This sensible royal mother excels in all sports that the king's delicate constitution has kept him from enjoying. She is proficient in hunting, riding and shooting. She is a fine musician, playing the piano and violin exceptionally well for an amateur. She speaks English, French, German and Italian fluently. She is a clever artist and is widely read in all branches of literature.

Not only is Queen Helena beautiful in form and feature, but she possesses that nameless charm without which perfect beauty is often devoid of fascination. She has large, lustrous dark eyes, full of expression. She has masses of black hair—the genuine raven's wing hue. Her complexion is dazzling transparent. Her carriage is extremely graceful and majestic.

She has now become popular among the people of Italy, and doubtless her good example in bringing up her baby will have far-reaching effects.

And Queen Helena is as sensible as a woman as she is a mother. It was entirely with her concurrence and advice that King Victor Emmanuel some time ago made known through his ministers that, with the object of relieving the burdens upon the national treasury and upon the taxpayers, he was about to order a further reduction in the amount of the civil list due to him as sovereign.

When he succeeded to the throne, says the London M. A. P., he made considerable surrenders of this character. Then he gave up another million lire of his official income to his mother, so as to relieve the treasury of his obligation of paying her the annuity due to her as the widow of the late King Humbert. With all this reduction the splendor of his court has not been in any way impaired. It has merely been reformed on a business basis, like that of King Edward.

HAS A UNIQUE PIPE.

One Made from Root of Historic Tree Is Wonderfully Carved.

M. N. Silver, of Philadelphia, is the proud possessor of what is considered the most unique pipe in existence. Obviously it is the most remarkable for the workmanship and skill which were displayed in carving it.

In 1801, about fifty years ago, J. Stone, of Trappe, Chester County, which is near Washington's headquarters at Valley Forge, came across a wonderfully shaped piece of wood. It was about six feet long and was a root from one of the historic trees of Valley Forge. The root took his fancy and an idea entered his mind that it would make a valuable historical relic if placed in a carver's hands and carved as he directed. But he never carried out his intentions and eventually the historic root came into the hands of Mr. Silver, who had his own ideas regarding carving. As a result it was made into a bunch of pipes and cigar holders, many in one, although he calls it a pipe.

The work on this pipe took 1,234 hours and, if reckoned at 20 cents per hour, the pipe cost him about \$300, not considering what was paid for it in the original transaction.

Mr. Silver has had many offers for the pipe, but has declined them all, the largest amount offered being \$500. He expects to place it in the Carnegie Museum at Pittsburgh if the negotiations which are going on turn out right.

The exterior of the pipe is carved out in many faces of grotesque expression, which give it a very odd appearance. It has quite a number of large trap doors, from which when opened, figures made of wood spring out. It has many receptacles for holding tobacco and quite a number of men can smoke at the same time, for the interior is composed of a labyrinth of small pipes and tubes. The smoke is pleasant by the time it reaches the mouth, says the Philadelphia Inquirer, losing the hot, burning sensation, and at the same time depositing the nicotine inside the pipe.

Two Kinds of Dreariness.

You hear often from car-window observers of the "dreary" desert, the "hopeless," the "cheerless" desert. But the desert deserves none of these adjectives. It is dreadful, if you wish. In the way in which it punishes the ignorance and presumption of those who know not the signs of thirst, it is sometimes awful in its passions of dust, torrents, heat; it is even monotonous to those who love only the life of crowded cities; but it is never dreary or cheerless. Hopelessness may well apply to the deserts of Mulberry Street and Smoky Hollow, with their choked and heated tenements, their foul odors, their swarms of crowded and hideous human life; but the desert of the arid land is eternally hopeful, smiling, strong, rejoicing in itself. The desert is never morbid in its adversity; on the other hand, it is calm and sweet and clean—the cleanest of all land. Not tillman comes, bringing his ugly mining-towns and his destructive herds, does it bear even the vestige of the unclean, the dreary, the picturesque.—Ray Stannard Baker, in the Century.

Queen Victoria's Way.

The Queen's interest in and oversight of public affairs did not cease with the Prince's death, although, in the first years of overwhelming sorrow, it must have been difficult to carry out her conception of duty. All important resolutions were taken by her; the personal notes in the "Court Circular" were written by her own hand, and were seen by no one else. When Sir Henry Ponsonby became the Queen's private secretary, she said to him: "Remember this: no advice! I am older than you are, and have had more experience." In after years, historians will have much to say upon the Queen's personal share in the government of her dominions. All her papers have been most carefully preserved and arranged, and some day, perhaps, will be accessible to the inquirer. On the other hand, there is not a single paper belonging to George III, which is known to be in existence.—Century.

Not a Stage Meal.

"My!" exclaimed the good-natured housekeeper as she watched Weary Wrangles devour the food. "You certainly do not act as if they were hungry." "Act?" he cried, between bites. "Gee whiz, lady, don't you know de difference between actin' an' de real ting?"—Philadelphia Press.

Do you annoy people who are willing to let you alone? Many people do it. Look yourself over.

Misfortunes never come singly. But good fortune has solitary babies.

HOW THE MOROS FIGHT.

They Display Great Ferocity and Seem to Relish Death.

For ordinary occasions the Moro will carry a dagger or two in his belt, while, if he be of sufficient rank, especially when visiting an American officer, his armsbearer, usually some favorite youth, will carry his larger weapon, a modern umbrella for the sun, and an extra supply of lime and betel nut. The racial complexity of Moro origin discovers itself in the patterns from his looms, the fashion of his garments, and, to a certain extent, in the carved ivory and silver-work of his weapon's handles. The face characteristics are perhaps mainly Malay, but in some cases there is an undoubted infusion of Hindoo blood, while often there are traces of Arab, and sometimes, though less often, of Chinese. The patterns on Moro tapestries belong to the art workers of Hindoostan. So does the rather tight fitting pataloon and the fashion of wearing a silver-beaten betel-nut box at the girdle. The Moro turban, however, conforming to the Mohammedan custom, is yet entirely distinct from the large, carefully wound puggree of India. It is rather a jaunty cap, made by the clever twisting of a gay-colored cloth square, measuring not more than a yard.

Considered as a fighting race, the Moros are accredited with great ferocity and fearlessness, or rather a relish of death, on the battlefield, begotten of the belief that such a death is a certain passport to that peculiar heaven which is the true believer's final home. But, as the British wars with the tribes of Islam have so singularly proved, fanaticism is no match for repeating rifles, machine-guns, and a plan of campaign. Though a war with the Moros, if the whole people were to rise and take to the jungle, might be long and bloody, and necessarily a war of subjugation, or, failing that, of extermination, yet there could be only one end, complete American control, even if our losses in ambush or from the assassin's knife in the darkness should add dark pages to Philippine history.

Hitherto we have told the Moros that we are their masters—that they must obey us and submit to our rule. Following the agreement which was entered into by the Sultan of Sulu, negotiated by General Bates, the Moros have been comparatively well-behaved and non-aggressive. How much confidence the American commanders have put in Moro trustworthiness may be gathered from the fact that no party has visited their cities on the lake, no one has explored their territory, and those who have wandered a little into their forbidden zone have had tales of halfbreed escapes to tell; or, like the unlucky ones whom Chaffee's men are now seeking to avenge, they left their bones on Moro soil. In brief, it much resembles man's rule of the rattlesnake: "Keep out of my way and I won't bite you."—Leslie's Weekly.

OLD-TIME SCOTCH SERMONS.

Those of the Eighteenth Century Were Nothing if Not Exhaustive.

The length, breadth, depth and thoroughness of the Scottish sermon of the eighteenth century were vividly portrayed by Dr. Watson, better known as "Ian Maclaren," at the Royal Institution recently. A subject, as he remarked, was thoroughly thrashed out in those days. One text furnished a minister with eight sermons; another spread his comments and explanations upon a passage of eight verses over a period of nine months, while a third began a course of addresses to his congregation on the Epistle of St. James in 1766, and a whole generation had passed away before it was completed in 1792.

Even the endurance of Scottish congregations seems sometimes to have been unequal to these great trials, and an order had to be issued that the people should not entertain their neighbors with discourses while the minister was holding forth.

It must have been easy to slip into heresy in those days, says the London Chronicle. The declaration of a stern Cameronian of the middle of the century, which has fortunately been preserved, indicates the ready pitfalls for the feet. "I leave my protest," said he, "against all sectarian errors, heresies and blasphemies, particularly against Arrianism, Erastianism, Socialism, Quakerism, Deism, Bourgeoisism, Familism, Skepticism, Anabaptism, Millenarianism, Pelagianism, Campbellianism, Whitefieldism, Latitudinarianism and independency and all other sects and sorts that maintain any error, heresy or blasphemy that is contrary to the word of God, particularly the toleration granted by the sectarian usurper, Oliver Cromwell, the anti-Christian toleration granted by the popish Duke of York and the present continued wicked toleration granted by that wicked Jezebel, the pretended Queen Anne."

Progress.

"Jabez is gettin' used to public speakin', ain't he?" "Oh, yes; I remember when you could hardly get him to stand up, an' now you kin hardly git him to sit down."—Fack.

Armies on a Peace Footing.

The peace footing of the armies of the civilized world is in all 4,000,000 men.

By the time a woman has worn out all jealousy entertained because of her husband, her sons are grown, and she begins to grow jealous on their account.

The tongue is a pump used to induce a flow of conversation.

LED A WILD LIFE. DROWN IN THE ELBE

THE REMAINS OF DEAD BANDIT IN HANDS OF RELATIVES.

VERNE STEWART IS HIS NAME

CORPSE FOUND IN A LINCOLN DISSECTING ROOM.

PARENTS WELL-TO-DO PEOPLE.

Man Killed in Sherman County in a Fight With Posse Proves to be a Former Resident of Illinois.

Lincoln, Nebr., July 25.—Verne Stewart is the real name of the horse thief who was killed on April 26 last in a battle with officers in Sherman county. His home was at Pittwood, Ill., seventy-six miles from Chicago, where his parents now reside. A strange part of the history of the young man, who was but twenty-one years old is that through the means of an unknown person writing from Oklahoma, his relative were led to make a search for his body. His remains were recently taken from the dissecting room of the Lincoln medical college, where they had been legally consigned. Through the courtesy of the officers of the institution the remains were shipped to Illinois for final interment a week ago last Monday. Had the search been delayed a short time longer the means of identification might have been destroyed and the relatives would never have known to certainty the fate of the young man.

The story of the discovery of the young man's identity is quite interesting. He was a wayward son and several years ago he left his home. His parents were well to do people. His brother-in-law, Noah Ash of Pittwood is in the grain business in that city and is a respected business man. The young man's sisters are well connected, one being the wife of a presiding elder in a large district. Stewart could not bear the life of his home town and started out to make his fortune in the west.

He wandered about in different places leading a free and easy life till he settled for a while in Oklahoma. On several occasions, his family sent him money. Once they sent him \$300 to buy a team of horses. He bought a tract of land in Oklahoma on which he aimed to live. But the border life was too enticing and he kept bad company. In April of this year he with his friends came to Nebraska and near Greeley Centre, at Spalding, the theft of several horses was discovered too soon after the deed for the men to effect an escape. They made a long cross country run with the sheriffs of three counties and a large posse in pursuit. Across the line in Sherman county they were brought to bay. Many shots were fired and ex-Sheriff Houck received bullet wounds. During the encounter the thieves fortified themselves in a trench in the sandhills when Stewart, seeing they were surrounded started to run. He received a bullet in the base of the brain and died instantly. His companions surrendered and one of them, Harry Hill, was brought to the penitentiary this week to serve a six-year sentence.

Many efforts were made to ascertain the identity of the dead man but they were to no purpose. He had given as aliases the names Charles Wilson, Hill and Baldwin. His remains were brought to Lincoln and viewed by many people, but none recognized him. His body was given to the Lincoln medical college through the regular channels and was preserved for use during the coming school year.

Harry Hill, the man brought to the penitentiary on Wednesday for the theft is one of the men arrested when Stewart was shot. He is charged with horse stealing for which he is sentenced for six years. Sheriff Smith, who participated in the chase brought him to Lincoln Hill is quoted as saying that they did not intend to injure the officers when they were cornered and they merely discharged their guns a few times to frighten the pursuers. As several bullets slipped the pursuing officers, it is taken with a grain of salt. The men were implicated in other affairs in Greeley county and since the affray, a large amount of cattle rustling has been traced to their doors. Two farmers living near Brayton lost sixteen head of cattle. They were driven to Fullerton and were loaded and shipped to Omaha.

Captain Strong in London.

New York, July 25.—A special dispatch from London to an afternoon paper says that Putnam Bradlee Strong arrived at Southampton today on the St. Paul, sailing under an assumed name.

In an interview he acknowledged his identity and denied positively the charge that he pawned Yohe's jewels. May Yohe, who was formerly the wife of Lord Francis Hope, sailed for Europe today on the Fuerst Bismarck.

GERMAN STEAMER PRIMUS CUT IN TWO BY A TUG.

FIFTY LIVES THOUGHT LOST.

NEARLY TWO HUNDRED ABOARD AT TIME OF ACCIDENT.

185 PASSENGERS ON BOARD

Disaster Due to Too Precipitous a Movement in Crossing Channel—Flood Causes Loss of Life.

Hamburg, July 23.—The steamship Primus of Hamburg, with 185 passengers on board was cut in two and sunk by the tug Hansa on the river Elbe at 12:30 Monday.

So far as is ascertained about fifty persons were drowned. Thirteen bodies already have been recovered. Primus was an excursion steamer from Buxtehude, province of Hanover, Prussia.

The disaster occurred between Blankenez and Nienstedten. Among the passengers were the members of the Ellbeck male choral society. At the time of the accident Primus was crossing the river channel near Blankenez, from the southern into the northern fairway.

According to witnesses aboard Hansa, the movement was made too precipitately. Primus struck the tug's engine rooms and Hansa endeavored to push it ashore, but the tug grounded and the ships parted. Primus then sank.

In the interval, however, about fifty of the passengers were able to reach Hansa by means of ropes and ladders. Seventy more were picked up by the tug's boats, while others swam ashore.

St. Petersburg, July 23.—A ferryboat, while crossing the river Volga Monday at Hersonk sank and fifty-eight harvesters were drowned.

Farmer Takes His Life.

Grand Island, Nebr., July 23.—Monday morning, when the two older sons of Hans Voss, a prominent German farmer residing a mile and a half east of the city, went out to the barn to feed their horses, they found their father lying dead on a pile of straw in the horse barn. They took him to the house and promptly notified their relatives in the city, and the coroner. It was found that he had risen during the night, gone to the stable and taken strychnine. Coroner Roedera at once went out to the place and upon investigation found an inquest unnecessary. The bottle from which he had taken the fatal draught lay near where the boys had found the body on the straw pile.

Hans Voss resided in the vicinity many years being counted with his father, among the old settlers. He was married nearly twenty years ago to a Miss Senbell, whose parents and family still reside in this vicinity, and the first years of their married life appear to have been happy. The union was blessed with four children, three sons and a daughter. In recent years the family appears to have had some domestic unpleasantness, and last week Mrs. Voss applied for a divorce, the hearing having been set for today. She alleges great and repeated acts of cruelty, among them that of luring the children to be impudent to her, etc. After having filed the petition for the divorce she was afraid to go to the house and did so, to get her clothing, only in the company of the sheriff. There is no doubt but that the man took his life as a result of this domestic trouble. He was well to do and in good health.

Upon retiring last night he had spoken to his sons about harvesting the oats today and gave no indication of a despondent mood. He was prominently and well known in his township, having several years ago been a candidate for supervisor. Mrs. Voss, his widow is quite distracted. She had been for the past week staying with her sister, Mrs. Emil Barth, of this city.

Locomotive Explodes.

Washington, Ind., July 23.—A B. & O. freight locomotive exploded near Olney, Ill., today. Engineer Conaty, of Washington, Ind., was instantly killed and Fireman Michael Muster was fatally injured. Fifteen cars were wrecked and traffic was blocked.

Boy Injured by a Horse.

Graf, Nebr., July 23.—The six-year-old son of John Marshall, living three and one-half miles northwest of Graf, was kicked in the stomach by a horse. The boy lay unconscious for a few moments, but soon revived. Dr. Cassamine of Graf was called and after making a careful examination said that the boy was not injured seriously and if inflammation as the result of the concussion does not follow he will be all right in a few days.

NEBRASKA NOTES.

Deposits in the Nebraska banks increased nearly \$24,000, last quarter.

Burglars entered the house of Peter Rasmussen at Fremont and carried off a gold watch and chain and a few other articles of slight value.

Nebraska City board of health has finished the cleaning of the basins of the water company and over six feet of sediment was removed.

Nebraska City has more handsome lawns than any other town in the state. A prize is annually offered for the best kept.

The German Lutheran church at Fremont has purchased a corner lot and will erect a church on the site in the near future.

It has been announced that Governor Savage had appointed T. J. Majors, of Peru on the state board of education, in place of John Eitz Roberts of South Omaha.

Fourteen hundred dollars in drill and exhibition prizes are offered by the management of the state firemen's tournament which will be held at Grand Island, August 5 to 7.

It is claimed that the farmers of western Nebraska raise and fatten their hogs for market on alfalfa at an expense of a cent a pound. Twenty years ago alfalfa was unknown.

Seventy-five per cent of the farmers of the state own their farms, and 90 per cent of the mortgages filed by them are for the purpose of improving their lands or adding to them.

John Wann a young farmer living near Superior had an arm cut off above the elbow. He was driving a team attached to a binder. The horses ran away and Wann was thrown in front of the machine, with the painful result.

The land commissioner left to look up a tract of land in Nemaha county which some years ago was reported to have sunk into the Missouri river. The tract covers thirty-four acres and recently it was discovered that the land was being used for a pasture. If the land is found it will be put on sale.

A. Giles, who was arrested at Genoa for alleged forgery, committed at Chicago, was taken back there without requisition papers by Detective Gallagher. Giles formerly lived at Genoa. He confesses his guilt and states that others will be implicated before the trial is over.

State Engineer Adna Dobson received a letter recently from F. H. Newell of the United States geological survey, asking Dobson to point out to him any storage reservoir schemes which would help Nebraska. Mr. Newell wishes to secure information of the smaller projects, as the larger ones are known to him.

Returns from threshers over the county show phenomenal yield of wheat from every locality. Reports show as high as fifty-seven bushels per acre. The grade of the wheat is very fine, some of it testing sixty-three pounds to the bushel. At Ellwood six new steam threshers have been started, and all of them have at least three months' steady runs ahead of them.

According to an agreement entered into by leading Omaha and Lincoln implement dealers some years ago, no exhibit will be made by them at the state fair. The Lincoln dealers will invite visitors to view their displays at the city warehouses, but none except the smaller dealers will have an exhibit of machinery or vehicles at the fair.

Preliminary steps in the direction of building the Kansas City, Beatrice & Western railroad were taken at Beatrice in the filing of a mortgage by J. E. Smith, one of the incorporators, to the Union Trust company of Philadelphia for \$500,000. Mr. Smith is president of the company incorporated a few weeks ago at Beatrice and states that as soon as the mortgage filed is returned to Philadelphia the money will be forthcoming and work upon the construction of the new line will begin at once. Under the articles of incorporation the line is to be built from Virginia to Beatrice, thence northwest to Grand Island. The articles also include a branch line from Beatrice to Lincoln.

For the past week Wymore has been infested by burglars. Several petty thefts have been committed, but the boldest attempt was made when someone entered the home of C. E. Benet, while the family was away, and stole about \$7 in cash from a toy bank and also made way with a valuable ring. Entrance was effected with a skeleton key, and before leaving the thief locked the door.