

## WHAT GEORGE SMITH DID.

George Smith, of Coalville, was born one of the brickyard children among the dreary clay pits of the country of Stafford, England. He was one of the swarm of little ones who began their life in the brickyards at 6 years of age, carrying on their heads 40-pound lumps of clay, as big as themselves, or lumps about the hot and exhausting fires fourteen hours a day, and, in addition, often working all night at the kilns.

Once, after doing his usual day's work, this child had to carry bricks and clay all night back and forth between the makers and the kilns. That night he carried a total of five and a half tons of clay and in doing it had to walk fourteen miles. Man is made of clay, but these children were unmade with clay.

From his fifth or sixth year to his eighteenth year George Smith traveled over 80,000 miles to and at and from his work—more than three times around the world. His sufferings lighted in him the fires of a passionate resolve to save others.

He began to agitate, to write letters to the press, to plead with such influential men as he could reach. He had educated himself by the light of the kiln fires he watched at night. His "Cry of the Children" and other appeals by pen and speech caught the ear of the public and the public compelled parliament to act.

Laws were passed bringing the slaves of the brickyards under the protection of the awakened social conscience, and a new source of wealth—a fuller manhood and womanhood for these ravaged children—was opened for England. The old political economy had been unable to see the financial folly of burning out the red of the cheeks of its children to burn it into the red of the bricks which they made.

While he was working for others with such wonderful success and energy, Smith had been faithful and successful in his own work. He had risen to be manager of an important concern in the brick business, where he was making a large profit for his employers. He had a beautiful home with green lawns, avenues of trees, gardens full of fruit, a porter's lodge; he had his horse, carriage and coachman. He did not rest with his victory for the brickyard children, but turned at once to rescue another large class of children—the miserable boys and girls of the canal-boat population—beaten, overworked, wandering up and down with the canal boats over thousands of miles of English channels, sleeping in the cubby-holes of the boats; uneducated, forlorn. The sorrows of these children had entered into his soul and he pledged himself to set them, too, free.

But the spirit of vested interests roused itself to strike him down. His employers one dark night called him before them and demanded that he give up his work for the children or his position. "I cannot stop my work for the children," he said, and they discharged him.

George Smith went out of his handsome house and beautiful grounds, and, step by step, descended through every grade of poverty. He was made a bankrupt. He had to take his family to a wretched hotel which could not keep out rain or cold. His children had no shoes to go to school. They suffered for food and were glad to get red herring for Sunday dinner. "Scandals, lies, persecution, temptation, aching head, sleepless night, insults, snubs, hunger, fatigue, sobs and poverty"—these were the ransom he and his family had to pay for his devotion to the cause of the human wreckage of the canals. But he kept on with the devotion of the religious enthusiast he was—an apostle of a "right to work" that shall be worship, not profanation. In his diary for the last day of 1876 he said: "Made a bankrupt; got a commission to inquire into the canal question." Here again he was successful, and after six years' hard work lecturing, writing, lobbying constantly in the House of Commons, his bill was passed and the canal-boat waifs were brought in under the same legal shelter he had got for the brickyard children.

But there was more work to do. He had rescued thousands of little children from cruel bondage in the brickyards; he had made education and a decent life possible for tens of thousands of children in canal boats; and now he turned to bring into the tent of civilization the children of the gypsies and traveling vans and shows who were growing up in the very scum of the earth. In this work he died, poor but famous and beloved; known throughout the length of England and beyond; listened to by parliament, the press, the public, honored by testimonials in which the queen, men and women of title and commoners were all glad to unite. His only title was that by which he was known up and down the Midland counties, where he had gone on his mission of emancipation—"The Children's Friend." He sprang from the poor; he lived and labored, night and day, among the poor; and he died and made his grave with the poor.—From Henry D. Lloyd's grand address at Ruskin, Tenn.

One of the most stylish of the ready-made costumes suitable for a girl of twelve is made of a smooth French blue cloth. The entire skirt and sleeves are tucked, the tucking being so fine that it has the effect of narrow cording. This little costume has the correct Russian blouse, which is full both back and front and is made with a skirt cut in Van Dyke points. The Russian blouse is covered with a lattice work design fashioned of very narrow black satin folds. Down the left side of the blouse is an accordion plaited frill of changeable blue and full red taffeta silk. The cloth collar is exceptionally high and is finished with a frill of the plaited silk.

For very small girls the long coat is more in favor than the short jacket. In the coats as well as the dresses the Russian blouse is prominent. One of the newest coats is in soft gray smooth cloth and all a mass of tiny tucks. It is made with a blouse effect, back and front, and is fastened around the waist with a belt of dark green leather. The blouse is decorated with one tuck on the right side, which is made of dark green velvet and edged with chinelle, and the high velvet collar is finished in the same way. The whole little garment is lined with a gay Roman striped silk.

## SOUNDED THE DEAD VOICE.

### AN AWFUL HORROR OF PRISON LIFE.

The Dead Voice is Heard Only in Prisons and is Dreaded by Keepers as Well as Convicts—It is Heard at St. Vincent.

When the Dead Voice sounded in the penitentiary of St. Vincent de Paul, Montreal, Que., the faces of the keepers grew white. Their hearts beat the quick roll of fear in their breasts. The people in the village cowered in their houses.

The Dead Voice is the horrid, articulate cry of revolt, the fierce and dreadful sounds that men and beasts have in common. It is heard only in prisons.

It is elementary and huge in its import. It knows neither reason nor sympathy. It is born of hopeless, helpless, impotent rage and maniacal fury. It is monstrous and terrible.

It is called the Dead Voice because it comes from men who are buried in steel graves, some for a little time, some till the end of their time on earth. It is called the Dead Voice because it is the most awful thing of which the convict, criminal mind can conceive.

They who are frightened by the thought of death use it as a bogey to scare others.

The Dead Voice has been heard in every large prison. Sometimes it shakes the building to its very foundations. Sometimes it makes it grow hot with vibrant fear.

The great prison at Auburn, N. Y., has heard the Dead Voice twice. Sing Sing has listened to and known fear. It is heard not often. "Jimmie" Hope, the famous burglar, passed nearly the whole of his life in prison, and he heard the Dead Voice but twice. It harrowed his soul, and Hope was a hardened convict, a man who carried his life in his hands.

Each great prison has its own argot, but in the slang of all the Dead Voice is known. Even the convicts fear it. They do not plan it. It is a spontaneous outburst they cannot control.

When the Dead Voice gives tone it means that all the furies in the individuals has broken loose, that the evil and blackness in their hearts make them a compact, homogenous, murderous desire; a huge, tremendous entity made helpless by iron bars.

In the penitentiary of St. Vincent de Paul there are about four hundred convicts. It is one of the most important penal institutions in Canada, because many of the most desperate and important criminals are confined there.

The demon in them was aroused by an order prohibiting the use of tobacco. It is the one comfort, the one joy of prison life. Everything else that makes life worth the having is denied him, and this he prizes more than all the luxuries that might be at the command of a man in confinement.

The anger of the 391 men in the penitentiary knew no bounds. The confinement and the impost of silence makes strange creatures of these men. They live in a continual gloom. They are constantly at war with conditions. They come to look upon themselves as persecuted men. They live with these nerves that no suggestion of imposition may escape them. They feel that they are victims of a great conspiracy.

The rule prohibiting tobacco was a real hardship and the feelings of the convicts speed by that state of resentment with which all rules are viewed. Their anger became a hot and living thing.

No man among them said that the Dead Voice should be invoked. Each of his own knowledge knew that it would give tone and that it would carry fear and terror with it. It was only necessary to pass the word along as to the hour when the Dead Voice should be raised.

It was decided that it should sound on Wednesday night, just after the night keepers had made the second round. The prison wards were very silent. The lights played upon the whitewashed walls. The sweet night air met the prison odor, wrestled with it and was worsted. There was no sound save the heavy tread of one keeper or the shuffling scrape of another.

It seemed that somebody had struck a single blow with a hammer. It was the signal. The 391 men in the penitentiary sprang towards their cell doors. They grasped them firmly in their hands and began to rattle them. At first it was a mere ratchet. Then came a regular cadence. It grew faster until there was only a din. The thick bars seemed to bend under the impacts, the very stones seemed to lose their security.

The keepers knew that the Dead Voice had been lifted. They shouted sharp orders to be silent, but their faces were white and their fingers worked convulsively. The keepers ran along the tiers and gave their commands, but they kept near to the rattling. They could see the barred faces of the men.

The rattling and banging of the doors was lessened for a few seconds. Harsh, guttural growls, dull, long-drawn-out monotonous, came from the cells, foreboding sounds that seemed to burn in hungry stomachs. Like the warning cries of wild animals. Gradually the growls grew louder and louder and the rattling increased.

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Nearly four hundred men had become raving maniacs, and the six keepers felt their blood grow cold. They were a paltry half dozen against four hundred whose hearts were filled with a frenzy for murder.

Let but one man escape and no human being could forestall the end. With a single movement of a lever it could open every cell door and there would rush forth these crazed criminals, who could fall upon the keepers and tear them limb from limb.

And they would break from the prison and spread themselves over the country.

So it was with reason that the hearts of the keepers fluttered and their breath stuck in their throats. And it was no wonder that the villagers stayed in their homes with white, scared faces, for the din filled the town.

Louder, more terrible, more dreadful grew the Dead Voice. The men who sounded it were drunk with their own murderous enthusiasm. They were frantic to glut their thirst for blood. They hurled themselves against the iron doors, they tore their fingers in pulling at the bars.

The prison seemed rocking on its foundation and the whole earth seemed shaken in the insane fury of the men who had become ferocious brutes.

The keepers and the frightened villagers could only pray that the iron and stone would hold the madmen secure, but it seemed to them that neither granite nor steel could withstand the cumulative fury of the criminals. Fear took judgment and reason from them.

Far into the night the convicts gave tongue to the Dead Voice, until at last they sank to the floor through utter exhaustion, while the keepers were like men who had looked into their own grave.

The next day not a cell was opened and today but few were allowed to leave their little rooms. Many of the convicts were utterly prostrated, but in others the man still lived. It will be weeks before the effect of the Dead Voice passes wholly away.

In Auburn prison, in New York, the Dead Voice was heard with a fury that set the whole town by the ears. A convict had committed suicide by hanging himself to the door of his cell. The body was left hanging for twenty-four hours before it was cut, and this caused the 1,300 convicts to sound the Dead Voice with an effect indescribable.

### A HIGH-MINDED MISS.

An American Girl Who Refused to Meet the Prince.

Miss Grace Thompson is a high-minded and beautiful American girl, who has refused to meet the Prince of Wales. In other words, she has contemptuously rejected a so-called honor which would have transported almost every other woman of social obligations in England or America into the seventh heaven of delight.

Miss Thompson is the daughter of Judge and Mrs. William B. Thompson, of St. Louis. Her beauty, wit and charming manners have already made her one of the greatest favorites of St. Louis society. The last two years she has been in Europe, where she has been received in the highest and most exclusive circles.

Recently she was at Hamburg, in Germany, which the Prince visits almost every year. When he last arrived there he heard of the presence of Miss Thompson, of her beauty and charming qualities, and expressed a desire to meet her, confident that the opportunity would be grasped with frantic joy. But the young American woman noticed it by leaving Hamburg.

The snub to the Prince of Wales was so marked that a European newspaper, the Lucerne Times, recorded it.

Why should a respectable American woman refuse to meet the Prince of Wales? Some unsophisticated persons may ask.

Because he is an associate, patron and encourager of immoral women, money lenders, stock manipulators, card players and gamblers of all kinds.

By his flagrant conduct he has degraded the tone of public morality in the higher or fashionable classes of society throughout the world.

It is a lamentable fact that the gross offenses of the Prince too often find only admiration, instead of the reprobation they deserve, and which in others they would receive.

Some years ago the Prince of Wales's friend, Sir William Gordon Cumming, was put on trial for cheating at cards.

Thomas Wilsons, immensely wealthy patron, had invited a party of people to meet the Prince at their country house. Among them was Cumming, an officer and comparatively poor man.

The chief amusement of the party was playing bacarrat for outrageously high stakes. This was done, of course, primarily to please the Prince.

Gordon Cumming was virtually convicted of cheating and driven from the army. Thus the Prince's amusement caused the disgrace of his friend and smirched the reputations of many persons, some of them women.

The Prince was at the Wilsons' house without the Princess of Wales, but among the guests was Lady Brooke, a beautiful woman, whose society the Prince has favored for many years. It was well and publicly known in England that the Princess would visit no house where Lady Brooke was present.

To enumerate the immoderate list of notorious intrigues in which the Prince had been engaged would be both superfluous and nauseating.

### To the Scandal of the Nobility.

The famous Duchess of Devonshire ball, which was to a certain degree a duplicate of the Bradley-Martin ball, was recently reproduced on the stage of Drury Lane Theatre, London, to the scandal of the nobility and the amusement of the commoners. The ball was utilized as the setting for the last act of a new play entitled "The White Heather," the work of Cecil Raleigh-Raleigh and Henry Hamilton.

It was a remarkable contrast, when costumes worn by members of the Royal family by special permission of the Prince of Wales, and had the stage settings arranged by a society reporter who attended the function in disguise.

## THE BURGLAR'S STORY.

"There was a deathly stillness in the room, I felt unstrung, nervous. I groped my way through the thick darkness, when suddenly my fingers touched a woman's hair."

Old "Tim" Brady, seventy-nine years of age, once a bank robber, burglar and all-around crook, whose exploits made him famous in the criminal annals of the country, was yesterday telling of his life, says the New York Journal.

Over thirty years have been spent behind stone walls and iron bars, but he is ending his long career as an honest man. He lives in New Rochelle, and picks up a scanty existence by doing odd jobs.

"Whatever I did I never let myself forget that I was a gentleman, and that I was brought up under church influences," said the old man. "I don't mean that I remained a church communicant, for I couldn't have done that without being a hypocrite; but I mean that I never took money from a poor man—that I was always careful of my associates, and that—in short, I was a gentleman."

His parchment face, creased with a thousand wrinkles, was undecipherable; his blue eyes flashed with an introspective gleam; his mouth, under a drooping gray mustache, was oddly puckered; in his easy bearing he was superior to the old and shabby clothing that he wore.

"I've made plenty of money, and I've had good clothes," he said. "And he added, with a queer twinkle, 'I've worked harder for my money, too, than bank presidents.'"

When asked what he considered the most curious incident of his long career of crime, he told the tale of what happened upon a Christmaside many, many years ago, when he went back to visit his parents in his childhood home in Vermont.

"I had been busy for quite a while at my profession even then, but the old folks hadn't the slightest suspicion as to what it was. And I was on my way back, with my pockets full of money, bound to make them happy, if I could. I should have liked to put a good deal of the money into presents—but well, circumstances made it advisable for me to get out of town by the first train. Night came on, and I was still traveling. It was Christmas Eve, and bitter cold. As the train was not to reach my old home till after midnight I settled myself comfortably in a corner of my seat, and before I knew it I was asleep. When I awoke I found that I had been 'done'; that for the first and only time in my life a pickpocket had swiped my money. He had taken all of it, and even my watch and railroad ticket."

"I was not in a position to make trouble about it," he said, with a reminiscent chuckle, "and so at the next station I dropped off the train. It was a town I had never been in before, but I at once started up into the residence district. It was very cold, but the air was sharply exhilarating. Underneath my feet the packed snow creaked, and above in the sky twinkled thousands of stars. 'Somehow—and you will laugh at this, and I don't know how to explain it myself—I felt proud that I was a man of education, and that I had been raised under church influences.'"

"The streets were deserted. Here and there lights shone from windows, and at times I caught the sound of laughter and songs. But most of the houses were dark. I walked along, looking for the right house to go into. It comes to be a sort of instinct, you know. In a few minutes I came to the one I wanted and went in."

It was noticeable in the various stories that old Brady told that he always referred to his deeds simply. Here, for example, he merely "went into" the house. There was no elaboration or itemization of how he accomplished what to the uninitiated would be a difficult task.

The family was all asleep, and I gathered up what I conveniently could from several different rooms, made them into a bundle and went out. But I hadn't got all I wanted. The swag was good enough in its way, but it wasn't what I needed with me in going back to the old people for Christmas. And didn't take so much as I might, for I didn't want to be hampered with a big bundle. What I wanted was a good roll of bills. Well, I went out of that house and went into the one next door. I went through the kitchen into the hall and then into a larger room.

"It was pitchy dark, and from the moment I entered the room I felt a queer feeling that there was danger there. There was a deathly stillness. I felt unstrung, nervous. But I never allowed a fancy to interfere with business. I had work to do, and forced myself to do it. I groped my way through the thick darkness, feeling and stooping like this."

The old man rose from his chair, and with his body bent far forward and one hand gently moving from side to side, in front of his face, and the other similarly moving, held in front of his knees, walked across the room.

"You see," he said, "that in this way I can never unexpectedly run against anything. I am sure to find it with my fingers and touch it gently. And as I walked this way across the room I stopped and a thrill went through me, for my fingers had touched a woman's hair."

"Had I awakened her? She did not move. I stood listening, waiting, ready for a quick retreat, but not a motion did she make. If she had rustled her nightgown or the sheets ever so little I would have heard it. I could not even hear her breathe, and I fancied that she was awake and in deadly fear, ready to utter a scream and only waiting for a motion on my part that would tell her that a man was really in the room."

"I began to feel more nervous and my heart was beating hard. I knew that I was in a tight fix, for the town was not a large one, and if a general midnight alarm was given I would find it hard to get away. And I pictured to myself the disappointment of my father and mother if I should not appear for Christmas."

"But far stronger than the practical fear of capture was the intangible dread that I had felt from the very moment that I entered the room. It made me shiver and quake. I was never so unmanned in my life. To bring it to a crisis I struck a match. If you ever want to strike a match don't take the

new-fangled ones that make a crack in a quiet room like a pistol shot and a great flare of light, but use the old-fashioned kind. Well, I took one, drew it quietly across my sleeve (you should always use cloth, you know), and the instant that the light burned dimly I blew it out. But in that instant I saw plainly the young girl whose hair I had touched. She was dead. She had not been placed in a coffin, but lay stretched out with her hands crossed over her breast.

"Death was even then no stranger to me. I had seen men killed and I had often seen dead bodies. But beside that girl I felt a quivering fear. I shook so that I was afraid I would be unable to get safely away, and I fancied that she had opened her eyes and was looking at me, and that she was reaching out her hands to take hold of me."

"I stooped and laid upon the floor the bundle of swag that I had got next door, and then crept away, out of the house and into the sharp air of the bitter winter night. I laughed out loud once to think how funny it would be for them to find the bundle there in the morning, and then I went on back to the railroad station."

"And did you make your Christmas visit empty-handed after all, then?"

The old man looked at me with a queer wrinkle. "No, not exactly, for I couldn't bear to make them feel bad, you know. There happened to be considerable money locked up in a cheap safe at the railroad station, and—well—the agent wasn't there, so I just went in and took the money, jumped aboard the first freight train, and had a merry Christmas with the old folks after all."

### THE NOBILITY OF THE RED MAN

A Tragedy of Seventy Years Ago Among the Indians.

[Brooklyn Eagle.]

Three miles west of the village the level moorland rises into the hills of Shinnecock (Southampton, L. I.), so named from the Indians who were the original owners of all the lands. In 1703 the Shinnecock region was leased back to the Indians by the settlers who had previously purchased lands from the tribe and was used as a reservation until 1859, when the hills were sold to a local corporation and the remainder of the tribe took up their abode on the Shinnecock Neck, where they still live to the number of about 200.

These are mixture of Indians and negro, the last full-blooded member of the tribe having died a couple of years ago. The women till the soil and find employment among the cottagers and villagers, but the men hug the shady side of the house or hill, smoke watch the women at work and say nothing. They are silent and distrustful people. The government furnishes them with a schoolmaster and a preacher, but small influence they have to win the Indian from his contempt of labor, his pipe and his taciturnity. The only thing taught him by the white man for which he has a liking is a keen relish for strong drink, and when in his cups he is said to be an ugly creature. In the main, however, the Shinnecocks are fading off the face of the earth.

And yet life among them has not been without its strange, mysterious tragedies. At the close of a summer day seventy odd years ago a small sloop coming from the northward anchored near the shore of Peconic bay. The only person on the sloop who could be seen by the Indians fishing close at hand were a white man and a negro. After darkness had settled over the bay a light flickered from the cabin windows of a woman, and a voice, that of a woman, was raised in merry song. In the early morning hours a noise was heard in the direction of the boat and a woman's screams floated out over the water. Then the listeners on shore heard the sound of an anchor, and a little later in the early morning light the sloop was seen speeding out to sea. Just before it disappeared a man standing in the stern threw something white overboard. Among the watchers on shore was Jim Turnbull, an Indian known as the Water Serpent. After a time Turnbull swam out to the white object. As he drew nearer he saw it was the body of a woman lying face downward. When Turnbull turned the body over he recognized the face at a glance. The woman's throat had been cut and a dagger thrust in her heart. The Indian drew the woman's rings from her fingers, the dagger from her breast. Then he conveyed the body to the beach, and aided by his companions buried it near the head of Peconic bay.

The day following the woman's burial the Water Serpent disappeared. He was absent for several weeks, and when he came back to his home in the Shinnecock Hills gave no hint of his wanderings. Years later, however, when he was about to die, his lips opened and told a fearful story. During a winter's storm a few months before the murder in Peconic bay, the Water Serpent and several other members of the tribe had been wrecked on the Connecticut shore. The Water Serpent, alone escaping death in the waters, was found lying unconscious on the beach by a farmer named Turner who carried him to his home nearby, where the farmer's daughter Edith, a beautiful girl, nursed him back to health. An Indian never forgets a kindness, and the Water Serpent was no exception to the rule. He did not see his young nurse again until he found her body floating in the waters of Peconic bay. Following this history he quickly made his way to the home of the girl, and found that she had eloped with an Englishman, a former officer of the British army. The Water Serpent told the story, and two of the girl's brothers went with him to her grave. They opened it at night, identified the body and carried it away for burial beside that of the girl's mother. The Water Serpent had seen the Englishman and remembered his face. With the farmer's sons he took up the search for the murderer, and finally traced him to a country house near the village of Stamford. One day the Englishman was missed from his usual haunts, and months afterwards his body was found in a thick piece of woodland, with a dagger plunged through the heart. It was the same dagger that the Water Serpent had found in the heart of Edith.

## WORLD'S PROGRESS.

No tale in "The Arabian Nights," no story of the wondrous treasures taken by mystic power from magic nutshells, surpasses what science is doing today. Science, the wizard of the century, touches with his fairy wand the black, viscid coal-tar from the gas retorts, and cold becomes not only a source of light and heat, but an arsenal of colors, a buffet of dainty tastes, a medicine chest for suffering humanity, a storehouse of new foods and exquisite perfumes, a source of powerful explosives for war, and so many other miraculous powers that the telling challenges credence. From the one hundred and forty pounds of gas-tar in a ton of coal science today makes aniline dyes, numbering over two thousand distinct shades, many of them being of exquisite delicacy, so that vegetable dyes are almost displaced. Of medicines, antiseptics, hypnotics and fever-allaying preparations it furnishes quinine, antipyrine, atropine, morphine, exalgine, somnal, chloralamide, hypnol and a host of others. It furnishes perfumes—heliotropine, clove, queen of the meadows, cinnamon, bitter almonds, vanilla, camphor, wintergreen and thymol. It has given to the world bellite and picrite, two powerful explosives. It supplies flavoring extracts that duplicate the taste of currants, raspberries, pepper, vanilla, etc. It is the housekeeper's ally, with benzine and naphtha, the insecticides. It supplies the farmer with ammoniacal fertilizers. It has given to the photographer his two developers, hydroquinone and likonogen. It makes the anatomist his debtor for am soft wonderful stain for tissues. It contains the substance which tints the photographer's lens. It yields paraffin, creosote, pitch; material for artificial paving; saccharin, a substance three hundred times sweeter than sugar, and saccharin-amide, still sweeter; lamp-black, material for red ink, lubricating oils, varnish, rosin, almost our entire supply of ammonia, and hundreds of other things—all these science brings forth from this coal-tar. By means of its products—this waste that surpassed its usefulness only by its offensiveness—we can make preserves without either fruit or sugar, perfumes without animal, and coloring matter without floral or vegetable aid of any description.

About one-seventh of the coal mined in the world is lost by being broken up too finely to be burned with profit. This coal-dust accumulates at the rate of about twenty-eight million tons annually in the United Kingdom, and about twenty-two million in the United States. A prominent railway company is now mixing the dust with pitch and compressing it into blocks that burn like hard coal, with the advantage that they are entirely consumed to ashes. These "briquettes" are used on Continental railways of Europe. It is now suggested that the coal-dust may be fed to furnaces through a nozzle, as though it were gas or petroleum. The vast hills of coal-dust or culm, in Pennsylvania have in them wondrous possibilities. Nearly all the electric power now used in lighting the city of Scranton and in running its car system comes from the culm heaps. It is now claimed that the coal-dust can be made into a cheap gas, while its success as a heating fuel for boilers has been proved.

With culm-fring, a horse-power per annum will cost but three dollars and ninety-three cents, while at Niagara Falls, recently harnessed for man, the annual cost of a horse-power is fifteen dollars.

The beautiful embossed, leather-paper covering the wall of fine libraries, and the delicate, stamped leather fire-screens may, like many social upstarts be ashamed of their ancestry. Investigation proves them to be really nothing but thick paper covered with a layer of pressed leather pulp, made by pulverizing the leather in old boots and worn out shoes, captured by scavengers in their raids on the ash-barrels of society. Old shoes, no matter how degraded and worn are taken from their are used to elevate womankind by the high Louis XV heels. The steel nails leave the scraps at the suggestion of the attractive magnet, while the brass and copper nails, rescued later, pay the entire cost of the old shoes. The clippings and cuttings, transformed into a paste, re-enter society as artificial leather, and the residue, even unto dust, is carefully gathered as a fertilizer for farming purposes.

The waste of glass furnaces is now made useful. Into a fire-resisting mould are placed fragments of glass of various colors, which are then raised to a high temperature. The coherent mass thus produced can be dressed and cut into beautiful mottled blocks and slabs, forming an artificial marble of decorative service. Designs in relief can be obtained by pressure while the material is still plastic. From broken colored glass a "stained-glass" window can be made by fring, without the ordinary slow process of "leading." A prosaic soda-water bottle, in the final fulfillment of its destiny, may dazzle the eyes as brilliant "diamonds" or other "precious stones" on the shirt fronts and fingers of wearers of cheap jewelry. These bottles are also used for chimney ornaments, inferior glass for manufacturing districts, and also for making emery-powder glass-paper. From one to two thousand tons of cullet, or broken glass, are collected in the streets of London every year.

Slag, the refuse from smelting works, accumulates at the rate of millions of tons a year—its bulk being three times that of the iron from which it was separated. For centuries it has formed mountains near furnaces, it has been dumped has trespassed into valuable fields and towered high in its insolence. Archaeologists, by these monuments of waste, have located the furnace fires of antiquity that smelted ores when the world was young. Slag, since it has reformed and become useful, has entered into the construction of roads, and has been made into bricks, paving-blocks, tiles and railway sleepers. In great monoliths, weighing over three tons each, it has formed breakwaters. It has proved its value as material for paint, because of the fifty-five to seventy-five per cent of pure oxide it contains. As mineral wool, resembling asbestos, it is an excellent non-conductor of heat, and is used by architects as a filling under mansard roofs.