GENTLE WORDS.

Why not let our words be gentle?
Harsh words rudely jar
On the feelings of another,
And to kindly greet each other
Would be better far.

In the plainest words of converse
Music sweet is heard;
If in tenderness they're spoken;
But the melody is broken
By an angry word.

It would show a strength of spirit
To let no hard word
Fall petulently from our tongue,
And strike the notes to music strung
Making rude discord.

We would find it just as easy,
In kind tones to speak;
Hasty, cruel words are grievous,
And too sadly, truly prove us,
Pitifully weak.

Oft a little word, soft spoken,
Falling on the ear,
Throws a passing ray of gladness
O'er the heart darkened with sadness,
And dispels the tear.

Gentle words—they cost so little,
And such power hold
To impart to others pleasure,
Why not greater make their measure
Many thousand fold?

It will make our own hearts richer,
If we will but give
Lavishly to our fellow-man,
Gentle words when'er we can,
While on earth we live.

We are lowly, sinful creatures,
Sadly prone to err;
Yet, if we've blindly gone astray,
And can make amends to-day,
Let us not defer.

If one kindred heart we've wounded,
By a word unkind,
Oh, let us now forgiveness ask,
And make it our most willing task
The sad wound to bind.

There may be less sweet than bitter
In the cup of life;
There may be more thorns than flowers,
Yet, if unbroken love be ours,
We can bear the strife.

—*Detroit Free Press.*

A RAY OF SUNLIGHT.

"Quiet, Bess! steady, Fan!"

Jack Trevor gathered the reins more tightly in his grasp, and touched the horses with the long circling lash of his whip.

"Five minutes more will accomplish the distance if we can maintain this present rate of speed," he remarked to his companion, who had taken out his watch and was anxiously consulting its crystal face.

"And will the place afford shelter for our party?"

"Shelter?" Jack gave a low whistle, "Why you could quarter an army in the old barracks and have room to spare."

"Five minutes seems but a short period," said Laura Decker, glancing ruefully at her crisp muslin gown with its dainty garnishing of creamy lace and blue ribbons; "but the floods will be upon us in earnest before the expiration of that time."

"Farewell, my love," murmured her Cousin Rettie, pathetically, furling her sunshade under whose rim of soft pink silk her bright eyes were wont to peer out beseechingly. "You cost me a pretty sum at Schaeffer's, but the elements will have mercy upon you, my beauty."

"And my mauve sateen," wailed stately Miss Johnson, surveying the said miraculously fashioned garment with actual tears, that she did not dare let fall on her delicately tinted cheeks, for cogent reasons that she fondly imagined was known only to herself.

"Are you afraid, Miss Beckwith?"

Lawyer Hunter leaned over and was looking into the girl's face, thinking what a strong one it was, with its decided mouth and darkly fringed grey eyes.

"Afraid? No. Why should I be?"

She spoke a little impatiently and let her gaze wander back to the great masses of black clouds that lay piled above the horizon-like ebon mountains, the lurid lightning flashing fitfully above their ragged peaks.

A sudden peal of thunder startled the horses into a mad gallop, and brought an hysterical scream to the lips of Miss Johnson.

"Oh!" cried little Rettie Trevor, under her breath, her face growing very still and white, and her sunshade slipping unheeded to the yellow straw that had carpeted the bottom of the roomy old vehicle.

"Don't shiver so, child."

It was Margaret Beckwith who spoke, and she turned to the little limp figure, quickly divested herself of her wrap, and hid crisp muslin, dainty ribbons, and all in its voluminous gray folds.

"But you will take cold yourself," remonstrated Lawyer Hunter.

"I am not a tender plant," she replied, laughingly, touching with one slim hand the dark blue of her cloth dress. "I do not attend picnics clad in gossamer attire when—"

"Eureka! at last!"

It was Jack Trevor's big hearty voice that rang out, and a moment after he drew up the foaming horses with a triumphant flourish of whip and reins.

"Now, ladies!"

Ned Johnson seized Rettie Trevor in his arms, and sprung up the crumbling steps of the porch. His stately sister ascended with more haste than grace, and just as Lawyer Hunter handed Miss Beckwith up and followed himself laden with books and shawls, the patter of great drops sounded on the roof, and in a moment the outside world was a mist of driving rain and rushing wind, before which the great trees bent like saplings, and the flowers laid their broken heads on the drenched earth, and looked up with pitiful tear-wet faces to the angry sky that an hour before had been blue and smiling as an infant's eyes.

"Open, ye inhospitable doors," spouted the irrepressible Jack, striking the panels with such force that the crazy latch gave way and the entire party surged into the wide, musty hall, from which opened a large, dark parlor, sparsely furnished with dingy curtains and a few moth-eaten couches and chairs.

"Ugh! it's damp and musty," cried little Rettie Trevor, tip-tilting her dainty nose in disgust.

"And haunted, too," concluded her brother Jack, looking at her with solemn eyes.

"Haunted!" Rettie would have screamed, but her particular cavalier was examining the dismal prospect from one of the many diamond-paned windows, and she wisely concluded that it would be a waste of breath.

"Tell us the story, Jack."

A dozen voices chimed in the request, and nothing loth, Jack seated himself on the edge of a faded chintz sofa, and began in a deep, sepulchral tone, that accorded well with the shadows and general mustiness of the place:

"You may not credit the facts, my friends, but considerably less than half a century ago these rooms, now so silent and deserted, were filled with a gay company, and jest and dance made the hours fly merrily enough. The owner of the old mansion had brought to its roof a bride, a bonny young thing, according to tradition, and a year after an heir appeared to complete their felicity. All went merry as a marriage bell till the poor young mother discovered that her liege lord was given over to an insatiable love for strong stimulants. Unfortunately the shock broke her heart, and one fine day she died."

"And what became of the others?"

"That is as far as my information, derived piecemeal from the aged father of our landlord, extends," concluded Jack. "I only know that the father finished his days in disgrace, and died alone and solitary in this old house, which is haunted, the superstitious neighbors aver, by his restless ghost."

Ned Johnson had managed to entice the fickle Rettie to a seat in the window that overlooked the tangled, neglected garden. The others were conversing in pairs, and Mark Hunter stood alone and unheeded in the doorway, a heavy shadow on his face. Meg Beckwith, looking up from the book whose contents she was carelessly scanning, saw the shadows, and a sudden look of pitiful intelligence crossed her own.

"Mr. Hunter—Mark," she whispered, crossing the room unnoticed, and laying one hand on his arm. "I see it all now. Oh, why did you come here?"

"How could I foresee this visit?" he responded, his low tone penetrating no further than her attentive ear. "Remember that when we left our pretty picnic ground in Horman's Glade we expected to return immediately to the hotel, and not to this abode of dismal memories, whither the storm has driven us."

"Ladies," said Mark suddenly, in his usual everyday voice, "there must be some old quaint chambers above, to which you long dusky staircase leads. Who feels in a mood for exploration?"

"Not I," answered Rettie, happy in the company of her cavalier.

"Nor I," repeated Miss Johnson, thinking of dust, spiders, and her mauve sateen, all in one.

The others were engrossed in Jack Trevor's nonsense, and Meg, gathering her blue skirts closely about her, swept them a half-mocking, half-disdainful courtesy from the doorway.

"I am going to lay the ghost," she announced, and a moment after stood breathless on the broad landing above, her arm closely clasped around Mark's as she looked beyond, half affrighted at the gloom and dreary silence of the place.

Hastening her footsteps a little, he led her into a large, low-ceiled room, barely furnished, like the parlor below, and opening a wooden shutter, let in the cold gray of the afternoon's waning light. Meg's face was in the shadow, but the few rays that straggled through the dusty panes fell full upon his countenance, and a faint flush colored her cheeks as she noted the eager expression that rested on it.

Without speaking he drew a letter from his pocket, and held it toward her. She glanced at the address, ejaculated the one word, "Philip," and without opening it put the missive aside with a firm hand.

"Nay," he said, and his strong lip quivered under its covering of dark hair. "Now that you know all, be merciful. Here in this house which his father darkened with the dreary shadow of sin and under which shadow he passed a portion of his miserable childhood, let me plead for him. Was it so much his fault that he gave way to the miserable vice inherited from his wretched parent? Remember, he had no mother to guard his young footsteps and turn him from sin. Once he shocked your pure womanhood, but God knows he repented the deed in sackcloth, and as far as lies in the strength of weak man he has striven to overcome his depraved habit. Your influence, he avers, could wean him still farther from destruction, and—you love each other."

It was well that he did not see the blaze of indignation in Meg's eyes, or he would never have finished his vehement speech.

"Mark Hunter," she answered, calmly and coldly, for she would have died sooner than betray the tremor that shook her frame, "you cannot deceive me. Have I not seen—do I not know how you have stood by your cousin, day after day, warning, counseling, never impatient, very weary, till you won him back to virtue? He does not live in his own strength, he exists in yours. As far as the world goes, you have achieved a noble action. If you did it for my sake—I cannot thank you."

Mark drew his hand across his brow.

"Your words sound strangely," he said, with a dreary pathos in his voice. "I did not expect thanks, but"—with a second quiver of the mustached lip, that manlike he strove desperately to hide—"but—"

At the sight all the passion in Meg's strong nature was aroused.

"Because a woman was kind to a weak lad, who unstable nature appealed so irresistably to her strong one, was it necessary that the purest emotions of her heart must go out to him also? Why should he have all—wealth, position, friends, and—mercy?"

Mark's rugged features grew suddenly stern.

"Stop!" he commanded. "Tell me one thing. Do you love Philip?"

Meg gave a little gasp at the abruptness of the question; then her lips took on the old decided curve.

"I could love no one who proved himself less than a man," she responded, and there was honesty, at least, in her voice.

"Margaret,"—Mark Hunter leaned forward in the gray light with a half-awed look on his face—"my childhood was a hard, unlovely one, for I was not born to wealth, as was my Cousin Philip. I have educated myself by my own efforts, and have won a position in the world; but the battle I waged has left many a scar on heart and brain. Answer me one question honestly, even if the answer add to the burden my life has already sustained. Could you—would you—"

Shy Mark, he was stammering and stuttering like a guilty schoolboy; but Meg, with a smile that sparkled in the very depth of her eyes, put her slim hand in his, and repeated simply:

"I both could and would."

A sudden ray of sunlight shone out over the drenched earth, and in a trice dripping boughs and rain-laden grasses were sparkling diamond-like in its glorious radiance. "Mr. Hunter! Meg!"

It was Rettie who called from the regions below, and the truants came down the dusky old staircase much more slowly than they had ascended. A second ray from the tiny window fell athwart them like a blessed omen of approaching weal.

"Poor Philip!" Mark said, struggling between a sense of his own happiness and compassion for his cousin's disappointment.

"But not poor Mark," echoed Meg, softly, thinking how noble his plain face looked in the golden glow.

"Where have you been?" questioned curious Jack, as he stood by the horses' heads, while the party surged out to take their places with laugh and jest. "What have you two been doing all this time?"

"We have laid the ghost," answered Mark, gravely—"the ghost of doubt and misunderstanding that has cast its shadow over so many lives. I pray heaven it may never walk again!"

"Eh?" said uncomprehending Jack, wondering at the strangeness of the reply. But even after he and Meg were happy man and wife Mark never explained how his life, hitherto so dark, had at last been illumined by a ray of sunlight.

Webster's Court Dress.

Mr. Webster and Judge Duane Doty, then of Green Bay, Wis., were warm friends, and the judge at one time was a visitor at Marshfield. Mr. Webster was very fond of fishing—the only out-door sport in which he indulged. While the judge was his guest it chanced that a fine day for his sport presented itself. He accordingly invited the judge to accompany him in his piscatory sport. The judge didn't want to go, and tried his best to get off, saying he would much prefer, with his consent, to pass that rainy day in Mr. W.'s library among his books and papers. Mr. W. wouldn't listen to him, said he could pass any and as many days in the library as he chose, but such a day as that for fishing might not occur again while they were at Marshfield. The judge, as a last resort, said that he really could not go, as it would spoil his clothes, that the handsome black suit he had on was his best and all he had, and that to go fishing in it would spoil it. To obviate this objection Mr. W. directed his servant George to go upstairs and bring down the dress in which he was presented at court in England, which George did. As soon as he appeared with it Mr. W. said: "There, Doty, is a dress for you; put it on, and come as soon as you can, for we are losing valuable time." The judge replied: "Surely, Mr. Webster, you are not in earnest in what you say; that you want me to go fishing in that elegant suit, and spoil it?"

"Yes, I am," he replied; "that is what it has been brought down for."

The judge still lingered, when Mr. W., to settle the matter, said to him: "Have no anxiety about injuring the dress, for to fish or hunt in it is the only way it can now be made useful. Could I wear it in Washington, Philadelphia, New York, Boston or even here? If I did, wouldn't everybody laugh at me?"

The judge was compelled to answer affirmatively to the question.

"Well, then," he said, "pray what is it good for but to go fishing in?"

This settled the matter. The judge put on the dress, and went fishing in Mr. W.'s court suit, and saved his own.—*Harper's Magazine.*

By the discovery of four new asteroids last year the total number of known minor planets was increased to 235.

SCIENTIFIC AND INDUSTRIAL.

Platinum wire has been drawn down so fine by Mr. H. F. Read, of Brooklyn, as to be invisible to the naked eye, although its presence upon a perfectly white card could be detected by the touch and could be seen with the aid of a small magnifying glass when the card was held in such a position that the wire cast a shadow.

Zirconia, an extract from a mineral found in considerable quantities in the South, is quite likely to succeed petroleum coke for the manufacture of electric light carbons. Recent experiments have been highly successful, and the discoverer claims to be able to produce a carbon point two inches in length that will last for a year.

Professor Chowlson, St. Petersburg, reports the invention of an electric watch, which derives its motion from a very small battery. It is said to keep very good time. No details are given regarding the construction and arrangement of its several parts, but the mechanism must be very simple if, as it is stated, the watch has only two wheels.

Gas-pipes are now made of hemp paper, as it possesses many advantages over the ordinary material. It is cheaper, and is not so liable to be broken. The pipes so made are smooth and absolutely tight, and, when the sides are scarcely three-fifths of an inch thick, resist a pressure of more than fifteen atmospheres. They are bad conductors of heat and do not readily freeze.

The annual rainfall in this country, according to the *Weather Signal*, is lowest in New Mexico (thirteen inches) and California (eighteen inches), and highest in Oregon (forty-nine inches) and Alabama (fifty-six inches). The annual rainfall in the British Islands among the mountains is forty-one inches; on the plains, twenty-five inches; forty-five inches of rain falls on the west side of England, twenty-seven inches on the east side.

Rev. Dr. H. C. McCook, of Philadelphia, has been studying the habits of spiders, and in a lecture on that class of beings, finds much to admire in them and their work. Among other things he said that seldom does an artist succeed in drawing a spider's web correctly. Moreover, an artist generally draws a spider with its head upward, when it ought to be downward. Of webs there are the orb, the sectional, the part circle, the hanging net and the surface ground web. Some are also found in California, with their nest in the ground and hidden with a trap-door like covering. The inside of these nests is covered with a delicate white silk, and the spider seldom ventures out for its prey except at night, when it spins a fine web on the ground near its nest. In this are caught many insects. Illustrations were shown of spiders which can construct a nest beneath the water in the shape of a bell. To this they carry air, a breath at a time, and there they live and take care of their young.

A Risky Speculation in Sheep.

N. and M., cadets, tall and hairy, and looking much older than they were, found themselves one vacation with only five shillings between them, and in need of capital. They were accustomed to agricultural pursuits, and N. plumed himself on his judgment of sheep. "Let us go," he said, "to the sheep fair at E., and buy a flock and sell them at a profit." They attired themselves in proper raiment and went to the fair; after a general inspection of the pens, they bought 100 sheep at thirty-nine shillings a head—that is to say, they agreed to buy them. M. went with one of the drovers to a public house, ostensibly to hand him over the money, but really to gain time and to spend his five shillings in treating him, while N. remained with the other to dispose of his bargain at a profit if he could. For a whole hour he did no business, but in the end he sold the flock at forty shillings a head, realizing £5 by the transaction. We talk of a bad quarter of an hour, but here were four of them for poor N. "Suppose you had not sold them?" I said; "would you not have got into a frightful row?" "Very likely," he said. "All the time I was thinking less of the buyers than of Botany Bay." For at that time we had transportation.—*Cornhill Magazine.*

The Maid's Revenge.

The London *Truth* tells the following: A week or two ago one of our best known peeresses gave her maid a month's notice, accompanying the warning by a smack on the face. The maid said nothing at the time, but brooded over her wrongs. On the day that her month was up, after she had received her wages, and her boxes had been placed upon a cab, she went up stairs and commenced to "do" her mistress's hair. Having deftly fastened it to the back of a chair, she calmly proceeded to administer a series of slaps to the somewhat highly-colored cheeks which were ready to her hands. Then, with a low courtesy, she took herself off.

A Proposal.

"Had a proposal from any of the fair sex since leap-year began, Jones?"

"I have, Brown; I had a proposal from the daughter of my boarding missus."

"Gimini! you are in luck. How did she muster courage to propose, and what did you say?"

"Well, you see, she keeps the books for her mother, so she came to me the other day and proposed."

"Yes, yes, lucky dog; go on."

"She proposed that I pay up my arrears or git."

"Whew!"

"So I got."—*Somerville Journal.*

Chicago has a girl with twenty fingers. Counts just as much, but it must be a scratch, all the same.

A LOST ART REDISCOVERED.

THE ANCIENTS' BLACK MIRRORS MADE FROM FURNACE SLAG.

A Visit to Pompeii Results in Experiments Which May Revolutionize the Making of Glassware.

Pittsburg is the recognized headquarters of glass manufacture in the United States, and any new discovery relating to it is always of interest here. Obsidian, it may be premised, is a species of volcanic glass, and one of the lost arts was the manufacture of various articles from this material, among them black mirrors, which are used in the making of optical astronomical instruments. In the twelfth and thirteenth centuries mirrors were made from an obsidian stone, and used principally by the Peruvians. The first mirror for optical astronomical purposes was made from obsidian in the year 1279, by a Franciscan monk, Johannus Peckham who called it Perspectiva Communis. He gave the first satisfactory prescription for the manufacture of mirrors from this material. That they had been known at an earlier day is shown by their mention in Pliny's writings. In the course of time the secret of their manufacture was lost. In the earliest ages mirrors were made from polished metal. Glass mirrors overlaid with silver were used in Europe to some extent in the thirteenth century, Venice being the seat of their manufacture. From Venice the art went to Bohemia, at that time called "the mother of glass manufacture," and it was not until 1665 that it was conveyed to France by one Colbert, a chemist.

Mr. Enrico Rosenzi, of this city, who is entitled to the honor of having rediscovered the lost art, is a native of Italy, a chemist by profession and practice, having studied in one of the leading German universities. He is now a citizen of Pittsburg, and here conducted the experiment which ended in his final success. His attention was first directed to the subject in 1879, while on a visit to Pompeii. Here he found a fragment of a statue—an arm—made from obsidian, and its evident kinship to the lava there so abundant led him to think it might have been made therefrom. Bringing away with him his trophy and a quantity of lava, he began an investigation and series of experiments which finally led him to a knowledge not only of the component elements of obsidian, but also as how it might be reproduced by artificial means. Like all investigators he met with many obstacles and discouragements, all of which only served to make him persevere more energetically. His first experiments looking toward the reproduction of the material were made at a Pittsburg glass house, and others in the furnaces of several of our local steel works. His first successful melt was made at the glass factory of George Duncan & Sons, in the latter part of 1881. He there made a number of ornamental articles and several slabs of the new glass, and later went to New York city and set up a small furnace for this manufacture. He one day visited the best known manufacturer of optical lenses in the United States, Mr. Weiskopf, and asked what he would charge for polishing a slab of it, which he laid before the great man. Mr. Weiskopf wanted to know what it was, and when he got the information curtly named a high price for polishing it. Much to his astonishment Mr. Rosenzi accepted his terms and a day was named when the work was to be completed. When he called for it Mr. Rosenzi was surprised to find all of Mr. Weiskopf's brusquerie gone. "Do you know what you have done?" the latter inquired. "You have rediscovered the lost art of making black mirrors. Don't get excited and think 'there's millions in it' for you, because but few of them are used, yet your discovery is of the greatest scientific importance." When it came to receiving pay for his work he smiled and said: "No, I want no money. Just bring me a slab like this, or even smaller, and I will be well paid." He got the slab and from it made a mirror which is now in his possession in New York city. The first one he made for Mr. Rosenzi is now in St. Petersburg, whither it was sent by the consul-general of that country, to whom Mr. Rosenzi presented it.

The new material has been patented under the name of "ferroline." Of course the articles entering into its composition are the secret of the discoverer, but the basic material is furnace slag. It melts at 1,800 degrees to 2,000 degrees F., and can be worked in eighteen to twenty hours after the materials are placed in the melting pot. Its qualities are great hardness and strength far superior to glass, capability of being either cast like molten iron or blown or pressed like glass, and susceptibility to the highest possible polish. It is opaque, the thinnest sheet of it successfully resisting the passage of light; is not attacked by any kind of acid, and has a clean, highly-polished fracture. Commercially it is well adapted for the manufacture of tops for tables and bureaus, slabs or plates for inlaying furniture, mantels, or wood mantels, for opaque bottles for druggists, fruit jars and for wall and other ornaments. It will take the place of glass in many uses for which the latter is poorly adapted. Its cost is some greater than glass, but not sufficiently so to render its cost for the above purpose too costly. Mr. Rosenzi has not yet entered upon its manufacture except on an experimental scale, but expects to do so at no distant day. There are millions upon millions of tons of furnace slag in this country which can be converted by this process from a positive incumbrance to a useful purpose.—*Pittsburg Chronicle-Telegraph.*

Several snowbanks along the Central Pacific railroad tracks in California had to be dislodged with powder.