

SOME EXPERIMENTS WITH ALCOHOL.

BY JULIA COLMAN.

Charlie Kenson was much interested in the accounts he had heard from his cousin Sophia of the experiments with alcohol in the Temperance school. So he made an engagement to go with her as soon as possible; but in spite of their plans they were late in arriving. When they went in Charlie saw how much it looked like a Sunday-school. There were all the classes with their teachers, and they were reading a scripture exercise. He looked, expecting to see Bibles in their hands; but no, it was a little paper-covered book with responsive exercises in the back of it. Sophia had one of her own, and he looked over and read with her, and when they were through he looked at the book. It was the "Catechism on Alcohol," and in the main part of the book were questions and answers on that subject. He did not think much of catechisms anyway, and he did not suppose he would care for this, but he soon saw the boys in the class near him resting and listening very eagerly. They seemed trying who could say it the best, and when the superintendent began to talk he saw why, for he talked about what was in the catechism and explained it. The catechism said:

"What is alcohol? "A liquid poison," &c. The superintendent asked: "How many of you have seen alcohol?" and a few hands went up. "What does it look like?" "Water." "Yes, and they look so nearly alike that you cannot easily tell them apart, can you?" and he held up two vials, each nearly filled with a clear-looking fluid. "One of these is alcohol, and one is water. Which is alcohol?"

"The one in the left hand," "The one in the right," the answers came, but it was plain enough they could not tell, and the next question was, "How can we find out?" "Taste it," "Smell it," "Burn it," said a few of the scholars.

"You must excuse me from tasting. We ought to know it by the smell, but there is a quicker way to show it to you all."

Then he took the corks from the wide-mouthed vials, and, folding a strip of paper he dipped one end in one vial and the other in the other. "Now," said he, "one end of this paper is wet with water, and the other with alcohol; which will burn quickest?"

"The one with alcohol," said a bright little girl quickly.

"Let us try," said the superintendent, as he lighted a match and tried one end of the paper which did not burn. "Water, water!" came from the eager children. "Yes, that is wet with water. Now we will try the other," and in an instant the blaze shot up several inches. It was easy enough for all to say "Alcohol" to this, and then they watched to see it burn across till it came to the part wet with water, and some one called out: "Burn your fingers!" But the fingers held the wet part, and in the water was safety. When the fire came to that it went out entirely, and then there was a small shout.

"Keep to the water and you are safe from the alcohol. We expect the water-drinkers to put alcohol out entirely as a drink. Alcohol is good to burn, but water is the safe thing to drink. We can make alcohol do us good service in the burning line, because it burns without smoke. It is very convenient for the jewellers, for it heats their work without blackening it. Here is an alcohol lamp such as jewellers use"; and he lighted the lamp and passed a plate through the blaze to show that it did not blacken. Then he poured some alcohol into a silver spoon and burned it, and it did not blacken the spoon. Then he explained that this alcohol was strong, that it was only about one-fourth water, that gin and brandy would also burn, but that we could not prove that there was alcohol in cider and wine and beer in this way, because there was too much water with it, and it would not burn. Some other things he said in his fifteen minutes talk, and then he asked questions to see if it was remembered, and after some singing and speaking pieces the school closed. But those experiments—oh! the boys did like them so much, and the girls too. Sophia declared she was going to study chemistry so that she could know all about it. She meant to be a superintendent herself some day. As for Charlie, he made up his mind to see more of that temperance school and of the experiments, if they had them.

ONE IN THREE.

It happened to me in early life to be in company, in the island of St. Vincent, West Indies, with a gentleman from Tobago, an island which had an evil notoriety for unhealthiness. I learned that it was the ordinary habit of the young men who constituted its principal white population to begin with drinking gangree (madeira and water) in the morning; to proceed to madeira at lunch time; to take brandy and water in the afternoon; and to finish off with neat brandy at night. It did not surprise me to learn that on this system one in every three died annually; and that if a party met to dine (and drink) together, it was often summoned a few days afterward to meet at the funeral of one of the number. On the other hand, my late friend, Dr. Edmund Parkes—a man held in the highest esteem among us for the services he rendered to the hygiene of our army—formed me that having served in early life as Assistant Surgeon in India in a European regiment, of which about one-half were total abstainers and the other half very temperate men, this regiment enjoyed a remarkable immunity from cholera and fever when marching through a very pestilential country; whilst the regiment they were on their way to replace, while marching through the same country in the opposite direction, had a large number of men struck down. I was so impressed with this fact, that I traced out the medical reports of Dr. Parkes' regiment for several consecutive years; and found that its average of sickness and mortality was only about half of that of the other regiments in the Madras command, which was at that time the lowest of the three presidencies. (A great reduction has since been made in the mortality of the Bombay and Cutcheta European troops, by the abolition of the allowance of arrack.)

The mode in which the habitual "moderate" use of alcoholics exerts its injurious effects, I believe to be by obstructing the removal of the effete matter of the tissues; so that they tend, in advancing life, to become the subjects of fatty "degeneration." This is especially the case in the heart, liver, kidneys, and walls of the arteries; and the foundation is thus laid of a variety of diseases that are well known to be those specially of "advanced life."—Dr. Carpenter.

THE BLUE RIBBON.

The Rev. Charles Garrett, President of the British Wesleyan Conference, says of the Blue Ribbon movement in England: "It is making marvellous progress. I can but wonder whereunto this thing will grow. Many of the foremost men in all the churches are wearing the ribbon. I meet it everywhere." William Noble, who is the founder of the Gospel Temperance work in England, indicated by this "ribbon of blue," and Francis Murphy who first tied it on ragged, dirty coats in America, are reaping rich harvests for God and home and native land. A Blue Ribbon Army has been formed in Switzerland to oppose the rapid increase of brandy-drinking. This habit has spread to an alarming extent of late years, and at the recent Health Congress at Geneva, a melancholy picture was drawn of the evil effects on the population. Owing to the scanty food the Swiss peasantry have recourse more and more to cheap and common brandy to supply the lack of strengthening nourishment, and where formerly bread and milk were the staple diet, potatoes and a weak solution of chickory, styled by courtesy coffee, are now consumed, and washed down by potato brandy. Many laborers take their brandy-basks into the field, and the habit is gradually adopted even by the young children, who fade and grow weary-looking through constant use of the stimulant.

HINTS TO TEACHERS ON THE CURRENT LESSONS.

(From Pelobets Select Notes.)

March 4.—Acts 5: 17-32.

ILLUSTRATIVE.

I. "Keeping on, though in a minority." When one of the early meetings of the American Board of Foreign Missions was held at Bradford, Mass., says Prof. Phelps, less than twenty persons were in attendance, and they were hooted at by the boys on the piazza of the hotel where they were in session. Now their annual meetings are the largest, most popular, and enthusiastic of their denomination.

II. When the first American missionaries reached India, the English government refused them a landing. "Go back," was the imperious order; "go back in the ship in which you came." In the General Assembly of the Church of Scotland, when it was first proposed to send the Gospel to the heathen, reverend gentlemen declared against the scheme. Not a century has passed since that time; yet now all Christendom rings with gratulation over the achievement of Christ's "missions" and no other class of men are so reverently canonized in the affections of the Church as her missionaries to the heathen world.—Prof. Austin Phelps.

III. "The world honors Christian Courage." In 1843 the Free Church of Scotland left the shelter of the State establishment, and 475 clergymen gave up their stipends, the principal of which amounted to two millions of pounds sterling. They left their parishes, their churches, their homes, their livings, rather than surrender one principle of religious faith. As they filed out of the hall of the General Assembly with the venerable Chalmers—the foremost man of all Scotland at their head—and marched down High street, a friend came to Judge Jeffrey and cried, "They are out, they are out!"—"Who are out?"—"The Evangelicals. Don't you hear the cheers of the crowd?" Then the judge, who had written against them, ridiculed them, and predicted that not one would dare to go, sprang to his feet, swung his hat, and with a huzzza as hearty as the loudest cried out, "Three cheers for Old Scotland! Nowhere out of Scotland could so grand a thing have happened."—From Prof. Phelps.

PRACTICAL.

- 1. Verse 17. Note the two effects of all good influences, hardening some, saving others; as the same sun melts wax and hardens clay.
2. Verse 19. God has many other servants beside the human race.
3. Nature and Providence confute bad doctrines, as angels defied the Sadducees who did not believe in angels.
4. Dr. Payson once said, "I am immortal till my work is done." God will deliver those whom he needs in his service.
5. Verse 20. The Gospel brings life—life for all the people.
6. God delivers us from trouble in order that we may serve him more faithfully.
7. Verse 26. Many people fear the people, who forget to fear God.
8. Verse 29. The religion of principle consists pre-eminently, in obedience to the sense of duty, without regard to consequences, Phelps.
9. The religion of principle is the only type of religious character, which commands the confidence of the world.—Phelps.
10. If a man will take care of the right, God will take care of him.—Phelps.
11. Verse 31. There is no having Christ to be our Saviour, unless we are willing to take him for our Prince.—Henry.
12. Where there is repentance, there is sure to be also forgiveness.
13. Verse 32. The business of Christians is to be witnesses for Christ of what he has done in and for them.

SUGGESTIONS TO TEACHERS.

We have to-day another example of vain efforts to oppose the Gospel. (1) First there was an attempt to put an end to the Gospel, by imprisoning the leaders, verses 17, 18. The whole Jewish authority was placed in the path of the Gospel. (2) The effort was vain because God was on the side of the Gospel, verses 19-24, sending his angel to release, and infusing courage. "If God be for us who can be against us?" (3) It was vain because the people wanted and needed the Gospel, see vers. 20, 21, 25-28. The rulers were fighting against the deepest needs of the human soul. The Gospel is for the people. (4) It was vain because Christ is a Prince as well as a Saviour, verses 29-32. A large part of the practical truth of the lesson is found in these verses.

DO NOT WAIT till near the close before you begin to show the practical bearing of the lesson. Sometimes indeed, for a special reason, you will find it best to carry the minds of the class along a considerable distance before letting them see the application. Thus Nathan brought David to a decision of the question concerning the ewe lamb, and then brought it home—"Thou art the man!" But, ordinarily, you are to "rake with the teeth downward."—Ex. change.

PUZZLES.

ENIGMA.

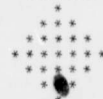
(From the German.)

Above a dull gray sea behold
A bridge of opal gleaming bright;
Ere one swift moment could be told
It sprung up to its giddy height.

The mightiest ship, with tallest mast,
Beneath its arch could issue free.
No foot across it'er hath passed
Approach it, and it seems to flee.

It rises where the streams abound,
And falls where'er the floods are laid.
Now tell me where that bridge is found,
And who its mighty arch has made.

DIAMOND.



- 1. A letter.
2. A resinous substance.
3. A town in the north of France famous for its thread and cotton manufactures.
4. A city in the Arabian desert whose ruins still excite the wonder of modern travellers.
5. A river in Scotland.
6. Before.
7. A letter.

HIDDEN AUTHORS.

- 1. At Geneva we took a row on the lake at sunset.
2. It is computed that Virginia, at the very least, owes thirty millions.
3. Beware of a moonlight stroll, O pensive and susceptible youth.
4. In travelling, do not burden yourself with things you never need.
5. A swallow does not make a summer, nor a single verse a poet.

SUBTRACTION PUZZLE.

- Drop every other letter, beginning with the second.—Example: heavy-hay.
Subtract from like a chorus and leave a mineral.
Subtract from sword-shaped and leave a walk.
Subtract from a fruit and leave one who laces.
Subtract from a Northern animal and leave an excursion on horseback.
Subtract from justice and leave parts of a fish.

ENIGMA.

My first is in gain, but not in loss;
My second is in she, but not in rock;
My third is in throw but not in toss;
My fourth is in trap, but not in knock;
My fifth is in man, but not in boy;
My sixth is in right but not in wrong;
My seventh is in drum, but not in toy;
My eighth is in many but not in throng;
My whole is a flower well worth a song.

WELL-KNOWN NOVELS.

- 1. A pronoun, a large covered waggon, and a garden-tool. 2. An inclosure and a familiar hymn tune. 3. A cold and cheerless dwelling. 4. Equally distant from the extremities and a month of the year. 5. Reluctant and to ventilate. 6. A number of a certain kind of tree.

ANSWERS TO PUZZLES.

CHARADE.—Cur-rant—Currant.
REHEARDINGS.—Flower, lower, Acorn, corn, Scamp, camp, Grave, r.v.y. Hearth, earth.
RIDDLE.—The letter M.
HIDDEN PLACES IN ONTARIO.—1. Pembroke. 2. Owen Sound. 3. Coburg. 4. Hamilton. 5. Goodwood. 6. Listowel. 7. Newmarket. 8. Moore.
ANAGRAMS.—1, Eva grin—vinegar; 2, train me—rainment; 3, mother—hot Tobi; 4, ray come—mycomer; 5, apocryphic—cost rips; 6, courage—our cage; 7, na lost—almost; 8, we sat—waste.

WORD-SQUARES.—

BRAD EDEN
RACE DATE
ACRE FETA
DEER NEAR

DROP-LETTER PUZZLE.—1. Orange-otang. 2. Rhinoceros. 3. Kangaroo. 4. Flamingo. 5. Pussant. 6. Mastodon. 7. Hippopotamus. 8. Dromedary. 9. Deer. 10. Giraffe. 11. Racoon. 12. Hyena.

A PRAYER in its simplest definition is merely a wish turned God-ward.—Phillips Brooks.

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