IMPORTANCE OF CARBON.

Without It or Its Equivalent We Could Have No Are Light.

The electric are light as now so commonly used is produced by the passage of a powerful electric current between the slightly separated ends of a pair of carbon rods, or carbons, about twelve inches long and from three-eighths to one-half inch in diameter, placed vertigally end to end in the lamp. The inmp mechanism is so constructed that when no current is passing the upper carbon, which is always made the positive one, rests upon the lower by the grauge work in the Dominion. Some action of gravity, but as soon as the of the farmers who are going across electric current is established the carbons are automatically separated about an eighth of an inch, thus forming a gap of high resistance in the electric circuit, across which the current is forced, resulting in the production of intense heat. The ends of the carbons are quickly heated to brilliant incandescence, and by the burning action of the air are maintained in the form of blunt points. As the carbons burn away, the lamp mechanism feeds the upper one downward just fast enough to maintain the proper separation.

The carbons are not heated equally. the upper or positive one being much the hotter. A small cup shaped cavity or "erater," ordinarily less than an eighth of an inch in diameter, is formed in its end, the glowing concave surface of which emits the greater part of the total light. In lights of the usual size, something like half a horsepower of energy is concentrated in this little erater, and its temperature is limited only by the vaporization of the carbon. Carbon being the most refractory substance known, the temperature of the crater is the highest yet produced artificially and ranks next to that of the sun. It is fortunate that nature has provided us with such a substance as carbon, combining, as it does, the highest resistance to heat with the necessary electrical conductivity. Without carbon or an equivalent-and none is known-we could have no are light --Charles F. Brush in Atlantic.

STOP IT.

Boasting of what you can do instead of doing it.

Thinking that life is a grind and not worth living.

Exaggerating and making mountains out of molehills.

Talking continually about yourself

and your affairs. Saying unkind things about acquaint-

ances and friends. Thinking that all the good chances

and opportunities are gone by. Thinking of yourself to the exclusion

of everything and every one else. Speculating as to what you would do in some one else's place and do your

best in your own. Gazing idly into the future and dreaming about it instead of making

the most of the present. Longing for the good things that others have instead of going to work and earning them for yourself .- Success.

A Hurricane.

The terrors of the deep were perhaps never more thrillingly set forth than in the description by a young lady who last year made her first trip abroad. cent a diary, very much anva the New York Herald, like that of Mark Twain, when for seven days he recorded the fact that he "got up, washed and went to breakfast." There was one important exception. When she crossed the channel the ex perlence was so trying that she felt impelled to describe it.



THE GRANGE IN CANADA.

Good Progress Reported by the Dominion Grange.

The American exodus into Canada has made its influence felt in the the border are members of the grange and are desirous of pushing forward the work of organization in their new homes. The master of the Dominion grange reports that he received a request from one of these farmers to organize granges in the territories, and he granted permission. Seven granges were organized at once, and the same organizer expects to report at least 100 new granges this fall. Nova Scotia is also awakening to the work of organization, and there is a general demand for the extension of the Order in that section. As people come to understand the real merits of the organizationthat it is not partisan, but sustains the right of the farmer in public affairsthey will give it their support. We have no doubt that if some of the energetic organizers of the states should go over the Canadian border and lend a hand they would give such an impetus to the work over there as it has not felt in years.

An Educational Agency.

R. B. Galusha, lecturer of the Vermont state grange, in a recent article in the New England Farmer had this good word to say for the grange:

"I should do myself an injustice." said ne, "if I failed to mention the grange as among the most powerful educational agencies now at work among the farmers of our land. Bringing together in its membership the old and the young, it deals not only with questions which relate directly to the farm, but to good citizenship as well. It has for its declared object the building of its members into a higher manhood and womanhood and the strengthening of their attachment for their pursuits.

"I understand that one granger, a member of the recent legislature, had the boldness to state on the floor of the house that the silent influence for, good of the grange in his town was greater than all other means combined. I know of no better means of drawing the farmer from the seclusion enforced upon him by location and surroundings to a position of respect for himself and his business and helping him to think, live and act his own thoughts. thus securing that union of purpose which shall command the respect of all classes."

The True Patron-

Never sulks; always co-operates, Always supports the master in word and deed.

Thinks no duty so small, no task so humble that it shall not claim his best endeavor.

Sees in every task the privilege of service, the opportunity for growth, the incentive to improvement. Considers the good of the Order of infinitely more importance than the glorification of self. Is always ready to help the lecturer, even if it be in no more distinguished a task than in passing the singing books. Shows as much earnestness in bringing flowers for hall decoration as in directing the most elaborate floor drill. Is so interested in having the grange prosper that he does not mind if it is raining on meeting night or even forgets that it sometimes may be a trifle warm inside. - Massachusetts Grange Visitor.

Che ARMY KICKER WANTED-A

[Copyright, 1904, by T. C. McClure.] It had been known in the Seventh infantry for months that Captain Harper of Company D and Captain White of Company G were bitter enemies. The bitterness between them dated back for years-way back to the days when as young men both loved the same girl.

One day the two companies were detailed to reach and hold two gaps in the mountains five miles away. Comrany B was sent on to cover the mouth of Green Cove gap, which was really the post of danger. At Snicker's gap, taken by the other company, the trail was so narrow and rough that no body of troops could be sent through it. At the cove there was a road over which divisions had marched, and their guns and wagons had followed.

Company G reached its position, rolled bowlders together for a breastwork. and the men in blue stationed behind it. A corporal and two men were sent up the gap a hundred yards to take position as vedettes, and as they sat down on a rock one of the privates said:

"Look here, Corp. It seems to me that there is a sight of foolia' around in this old army of ours. What are they expectin' us to do here?"

"Fight, mebbe," replied the corporal as he lighted his pipe.

"Yes, that's just like General Grant. Here we are, about ninety strong, and he expects us to hold this gap agin 10,-000 Johnny fighters. I'm no hand to kick, but"-

"Then what you kleking for?" demanded the coporal. "You are the worst old growler in the company. You'd kick if they offered you your discharge tomorrow."

"Look here, corporal, you don't know enough to walk under a cow shed when it's rainin' outdoors, but mebbe I can drive an idea into your skull. Here we are, ain't we?"

"We ain't anywhere else."

"Then that's settled. Down there is Company D, two miles away. We are to hold one gap-they the other. They won't see a cussed Johnny down there. while we'll have a thousand on us before that old brass watch of yours says it's 12 o'clock noon. Can less'n a hundred men lick 10.000?"

"I've heard of such things." placidly replied the corporal.

"Oh, you have! We can lick no 10,-000, nor yet 500, but the p'int I want to make is that Company D won't move a foot to back us. That infernal Captain Harper will see us all wiped out before he'll give an order."

"Nobody wants him to back us. We'll do our own fighting and get the glory of it. Say, Bill, General Grant give me a little p'inter for you the other day. He said if you'd cut your hair. wash your feet and stop kicking he'd make a brigadier of you right off."

"Waal, he might do a heap wuss," replied the private as he opened his haversack to get a bite to eat. "You jest mind. however, what I said about Captain Harper. I can fight and kick, too, and you needn't be afraid of my runnin' away, but when the sun goes down tonight there won't be no more of Company D."

Half an hour passed away, and then the three vedettes caught sight of a dozen Confederates making their way down the gap. There was every reason to believe that a large force was

REHEARSAL

[Copyright, 1904, by Richard B. Shelton.]

The play was over. The curtain had gone down, amld tremendous aplause, on a fitting tableau-the heroine clasped in the hero's arms; the villain, vanquished, but defiant, glaring at them from the papier mache arbor. and the pair of secondary lovers indulging in expressive pantomime on a balcony that threatened momentarily to collapse.

True love had run its uneven course for an hour and three-quarters, and after surviving a series of idiotic mishaps, absurd doubts and all the other obstacles an enthusiastic amateur playwright could put in its path it had emerged unscathed and triumphant.

The orchestra was playing the latest popular march as a sort of recessiona for the admiring relatives and friends. Lady Gatacre, still in costume, sank wearly into a rickety wooden chair in

one of the little anterooms near the stage. Sir Charles Windon climbed a pile of properties used in act 1 and, perched there precariously, rested his chin on his upturned palms and surveyed the lady thoughtfully.

"I suppose I should apologize," he began tentatively. "Still I would like to say a word in self defense. May I?" "Go on," said Lady Gatacre coldly.

"Well, I thought the scene demanded it. It seemed to make it more real, In everyday life the man would have done

it." "Well?" she said in challenge as he paused.

"And-and so I did," he said lamely. "And that is your excuse?" she asked, with considerable asperity.

"If I need one, yes," said he. Lady Gatacre regarded him icily. Her nose was elevated the fraction of an inch "I suppose you realize fully the em-

barrassing position you placed me in?" she said. "Believe me, I didn't intend to," he

remonstrated. "Of course you heard that very au-

dible titter in the audience?" she went on

He nodded.

"It was none of their business," he

complained. "If," she said quickly, "you hadn't made it so apparent; if you hadn't paused, debated as it were, it wouldn't have been quite so conspicuous. But when you stopped and looked about and the-and then"-

"Kissed you," he supplied, almost triumphantly.

"Oh, it was too ghastly evident that it was impromptu," she finished. 'I was perfectly willing to rehearse that piece of business," he suggested.

"It was unfair of you," she said hot-"We agreed to leave it out-that it ly. was ridiculous and unnecessary."

"It became quite necessary when you appeared in that gown. I'm only human, you know.'

"You are guite inhuman sometimes," she observed. "I couldn't help it," he said with

abject humility. "Your only excuse seems to be a reiterated plea of irresponsibility," said

Sir Charles scratched his head and

BIGHT HANDED FOLKS

WHY ARE THEY SO VERY LARGELY.IN THE MAJORITY?

There Are Two Factors In the Problem, an Inherited Tendency and Constant Practice-The Origin of the Innate Proclivity.

That the great majority of persons use the right hand with greater skill than the left is doubtless due to two Bazaar building. influences - an innate proclivity and constant practice. The preference shown by most infants at the age of one year for the use of the right hand proves that there is an inherited tand- making Victor flour. ency. Further evidence of it is found in the greater ease with which any entirely new act is performed by the right want your wood sawed. than by the left hand. Training, however, is an important factor. A mature person, having lost the right hand by accident, can achieve wonders with

perseverance and a strong will. The more mysterious of the two factors in this problem is the inborn tend- W. H. Hollis, Forest Grove. ency. How did it arise? There are exceptions to the rule. Perhaps two out of every hundred babies are left handed. But when you stop to think of at this office. it the natural inclination of the other ninety-eight is remarkable. A great many physiologists have speculated in regard to its cause without reaching any conclusion upon which all could

agree. Dr. George M. Gould says in the Popular Science Monthly that right

handedness is so thoroughly ingratiated in human nature that it must have been partially developed in the savage ancestors of the race. Primitive man, in his opinion, must have felt a definite need for the exercise of his right hand

in preference to his left, and that necessity must have been recognized and obeyed for a long period continuously. The impulse could not well have dictated his habits in eating, for knives and forks are of recent origin, the you have been sick, if you are troubled modern gun had not been invented, and writing was practically unknown. Moreover, in such operations as chip-

ping arrowheads, weaving baskets and wleiding clubs, bows and arrows it could not have mattered much which hand was employed. When warfare had been carried to

such a stage of advancement as to involve the use of a shield, however, that object was probably held on the left side in order to protect the heart. Then as a matter of convenience the right arm was left free for the more active function of fighting with spear and sword, and with habitual exercise came special skill. An attendant phenomenon was a finer organization of that particular center in the brain which controlled these movements and which was situated in the left half of the organ. The brain is the real seat of all dexterity, and something takes ternal efficiency. With an increased use of the right hand, Dr. Gould thinks, there must have been greater demands upon the right eye, because vision must precede the order to strike or to give peaceful signals. In this way there may have been developed a keener power of vision in the right eye than in the left. Dr. Gould assumes that there was and declares that "right handed ASK THE AGENT FOR people are right eyed" and that in their

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"I firmly resolved to stay on deck." she wrote, "although the tempest increased to such a frightful hurricane that it was only with the greatest difficulty that I could hold up my parasol."

A Wonderfal Memory.

Hortensius, the Roman orator, could repent word for word a book he had just read. On one occasion he made a wager with one Sienna and to win it went to an auction, remained all day and in the evening gave a list of all the articles sold, the prices paid for them and the names of the purchasers. The accuracy of his memory was in this case attested by the auctioneer's clerk, who followed the recapitulation with his book and found that in no case had the man of wonderful memory made a single mistake.

Manners.

Manners are of more importance than laws. In a great measure the laws depend on them. The law touches us but here and there and now and then. Manners are what vex or soothe, corrupt or purify, exalt or debase, barbarize or refine us, by a constant, steady. uniform, insensible operation, like that of the air we breathe. They give their whole color to our lives. According to their quality they aid morals, they supply them or they totally destroy them. -Burke.

A Bad Recollection.

First Barber-Whew! That barnstormer must be a bad acor! Second Ditto-Why? First Barber-When I asked him if he wanted an egg shampoo he jum ed right out of the chair and made for the door !- Detroit Free Press.

Bad Either Way.

Mr. Wiseguy-No, I don't want any of those sausages. I'm afraid of tri-The Butcher-I assure you china. there's no danger of trichina in these sausages. Mr. Wiseguy-Well, hydrophobia, then. It's just as bad-Cleveland Leader.

Encouraging.

A.

"Close up, boys; close up!" said a colonel to his regiment. "If the enemy were to fire on you when you are straggling along like that they wouldn't kill a single man of you. Close up!"

Newspaper Interest.

Showing the increased interest which the newspapers take in reporting the proceedings of state granges and also of subordinate granges, J. O. Wing, past master of the Washington state grange, writes as follows: "When I was elected master of the state grange the press of our state paid no attention to us whatever, and it was hard to induce them to publish anything, but at the last session of our state grange two of the leading daily papers of the state paid for telegraphing 500 words per day on the proceedings. Lengthy reports were carried in the local city papers also."

A Good Worker.

National Secretary C. M. Freeman is booked for a week of field meetings in West Virginia in August. While Secretary Freeman's duties to the Order partake of a clerical nature, yet as an orator he is surpassed by few, and our brethren of the Mountain State are to be congratulated upon this opportunity of hearing him, says the National Stockman.

A Massachusetts Field Day.

The Massachusetts state grange will hold a field day meeting in connection with the Borough Pomona grange at Chauncy park, Westboro, Aug. 18. It is expected that National Master Aaron Jones and other representatives of the national and state granges will be present.

Houlton grange of Maine carries on a large work in co-operative buying and selling. The sales made by the members of this grange for the six months ending June 1 amounted to \$39,724.51.

Is there a grange in your township. reader? If not, why not have one?

One grange in Illinois initiated ninetyfour members in three months.

behind them. "I told you they'd be comin' down this gap!" growled the kicker as he made ready with his musket. "There's a whole regiment behind them feilers,

and we'll be chawed up in ten minits.' "I sort o' think we'd better fall back.' answered the corporal. "They are coming down the gap sure enough, and they'll be right on top of us next thing. Come on."

The Confederates marching down the gap numbered a full regiment, and five minutes after the retreat of the vedettes Company G was fighting for its life. Captain White saw at once that he was vastly outnumbered and that he must be re-enforced, and, though it went against the grain to do it, he sent off a messenger to Captain Harper.

"Tell him I have no men to spare and that he must hold his position to the last man," was the word that came back.

The men of Company G were told of the message, and after a moment of cursing they swung their hats and cheered. They could not hope to hold the position a quarter of an hour longer, but they would obey orders and die there. The Confederates had dozens of men killed as they charged the rocky breastwork, but they came again and again and always reaped an advantage.

They finally brought up a fieldplece. and the men who had been fighting with a faint glimmer of hope now groaned out in despair. Three or four solid shot tore the breastwork to pieces, and the remnant of the survivors could only hug the ground and continue to fire. There were calls for surrender, but no orders to retreat. By and by the Confederates formed up again and made another dash, and this

time they carried the gap. "It was purty fightin'," explained the wounded kicker to his comrades in other companies that night at the camp, "We kept shootin' and shootin'. but they kept comin' thicker and thicker, and almost every man we lost was shot in the head as he raised above the breastwork to fire. One by one our men went down, and when the Johnnies finally rushed us the company was about wiped out.

"Say, it was murder to hold us three without support-wuss than murderand Captain Harper was to blame and ought to be hung, but I ain't sayin' anything more. What is the use of kickin' about anything?"

M. QUAD.

smiled hopefully.

"I am an irresponsible party, that's a fact." said he. "Look here, if I say I'm sorry, do you forgive me?" "Sorry for what? For-for"-

"For putting you in an embarrassing position: for the other, never!" Lady Gatacre frowned and flushed. "You'll have to be sorry for both be

fore you're forgiven," she mid. "Then I shall die unabsolved," he declared with finality. "It seems to me you're making a bad

matter worse," said she. "Well, turn about is fair play," he replied. "That is just what you've

been doing the past three weeks.' "I fear I don't follow you," said Lady Gatacre.

"When we started rehearsing this time," said he. "I was beginning to fall in love with you. That was the 'bad matter.' Since we've been rehearsing you have completed what was already begun. That's 'the worse.' "

He looked at her steadily. Lady Gatacre studied the toe of her shoe. He could see her cheeks were crimson.

"That was why I kissed you as I did in the garden scene," he said. Lady Gatacre did not deign to look

up from her shoe. "Are you really very angry?" he asked.

"Very," she replied. He sild down from his perch and

stood beside her. "What are the specific causes of your

anger?" he asked. "Everything," she said vaguely.

"Are you angry because I said I loved you?" he questioned.

She was silent.

"Are you?" he persisted. Still she was silent.

Sir Charles permitted himself a covert smile.

"If it's only the kiss"- he began. She sat up suddenly.

"It was the way you did it " she flashed, and her eyes again sought the interesting shoe. "The way I did it," he chuckled. "I think-well, I hadn't rehearsed it, you

know-I think with a few rehearsals I could do it better." He came close beside her and laid a

hand on her hair.

He waited patiently. Presently Lady Gatacre looked up at him and smiled.

But the villain and the pair of secondary lovers were lacking to complete the tableau.

brains the center of vision is on the left side, in close proximity to that governing the right arm.

While civilization was yet at a low level communication was carried on. especially with strangers, largely in the sign language. Barter laid the foundations of arithmetic and called into play the digits. The preference already given to the right hand in battle may have guided men in the choice for this service and also in official and so cial ceremonies. Computation, Dr. To SPOKANE, ST. PAUL, MINNE-Gould points out, was an intellectual process which was conducted in the speech center of the brain. Nature was compelled to take sides in locating the

latter, and she placed it to the left of the middle. Dr. Gould thinks that the choice was governed by the employ ment of the right hand for giving signals. So intimately related are the functions of speech and vision and the control of the muscular efforts with the right arm that action would be quicker if the cerebral centers controlling them were closely associated.

Before discussing the cause of left handedness Dr. Gould calls attention to the fact that with right handed people the left hand is occasionally called upon to perform a task of greater importance than its mate. In eating the fork is used more than the knife. In playing a violin or violoncello the fingering is done with the left hand and the bowing with the right. It is suggested that some of these operations may result from the superiority of the right eye. Perhaps the latter can watch and guide them better when they are performed with the left than with the right hand.

Left handedness is considered by Dr Gould an inheritance from ancestors, savage or civilized, who were obliged by some misfortune to abandon the use of the right hand. An even more influential injury, he thinks, would have been as to the right eye. With the cultivation of skill with the left hand, he believes, there followed a change in the organization of the brain. Owing to disease the center, which had formerly controlled action, lost its vigor and that on the opposite side acquired increased power. Dr. Gould says that the speech center was also transferred from the left side to the right of the brain in consequence. In the transmission of the cerebral peculiarity to offspring he finds the key to the manifes-"You-you really do need rehearsing tation of left handedness at a tender age .- New York Tribune.

Experience is a jewel, and it need be so, for it is often purchased at an inflnate rate.-Shakespeare.

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FORBES DWIGHT.

"I want to rehearse it through all my lifetime," he said earnestly. in that line." she said.