FERTILIZER! FERTILIZER!

A FEW POINTERS FOR THE FARMER.

The season for sowing Fertilizers is now at hand and farmers will see many cheap Fertilizers advertised claiming great merit. We desire, however, to call their attention to the fact that we are the largest buyers of

RAW MATERIALS

in the county, and are manufacturing and shipping our goods over 800 miles from home and are able to meet competition at that distance. We are shipping into three different States and our goods have been subjected to the analysis of the three different State chemists, who have proved them as represented. This being the fact, we know that we can

SAVE TO THE FARMER

who deals directly with us from $2 to $5 per ton on our goods when the analysis is taken into consideration. We further wish to state that we make a

Special Mixture for each Crop

Corn, Oats, Potatoes and Vegetables, according to their chemical requirements, and are not like the patent medicine man who sells one kind of medicine to cure all ills that human flesh is heir to. We also

MIX FORMULAS

as desired by the farmer himself. We ask you to call and see us before buying elsewhere, and try our goods along side of the socalled cheap Fertilizers, and see for yourself where you get the best value for your money. We also are headquarters for CLEAN MICHIGAN CLOVER SEED AND NO. 1 WESTERN TIMOTHY SEED, at very low prices.

Yours Respectfully,
H. S. ROBERTS & CO.,
Manufacturers of Fertilizers and dealers in Agricultural Chemicals, Westminster, Md.
mar-8-3m

Public Local Law.

CHAPTER 105.

AN ACT to repeal Section 73 of Article 7, Code of Public Local Laws, title "Carroll County," sub-title "Manchester," and to re-enact the same with amendments.

SECTION 1. Be it enacted by the General Assembly of Maryland, That Section 73 of Article 7, Code of Public Local Laws, title "Carroll County," sub-title "Manchester," be and the same is hereby repealed and re-enacted, so as to read as follows:

SECTION 73. All property within said limits, except that occupied as churches and schools, and the property occupied by Daniel and Jacob Lodge, I. O. O. F., shall be subject to such taxes and charges as may be deemed necessary by said Mayor and Common Council, or a majority of them, to support and maintain the expenses which may at any time be incurred in the improvements of said town, and for other corporate purposes, not exceeding fifty cents on every one hundred dollars of the assessed value of all houses and lots, and all vacant lots and premises and farming lands within said corporate limits.

SECTION 2. And be it further enacted, That this Act shall not go into effect unless it shall be ratified by a majority of the qualified voters of the corporation of Manchester, to whom it shall be submitted, and who shall vote at the next election for Mayor and Councilmen of said town. Upon each ballot there shall be written or printed the words "For the Amendment," or "Against the Amendment," as the voter may elect. If the majority of the votes cast shall be for the amendment, this act shall take effect on the first Monday of May, next. The result of the vote, as herein provided for, the Mayor of said town shall cause to be recorded among the ordinances of said corporation.

Approved March 14th, 1890.

ELIHU E. JACKSON, Governor.
JOHN HUBNER,
Speaker House of Delegates.
R. F. BRATTAN,
President of the Senate.

I hereby certify that the foregoing is a correct copy of an Act of the General Assembly, passed January session, 1890.

CARLTON SHAFER,
Chief Clerk House of Delegates.
mh-29-3t

FREE ADMITTANCE.

The Hess Manufacturing Company,

WESTMINSTER, MD.,

Calls the attention of the people of Westminster and the surrounding country to the fact that it is now prepared to do all kinds of Carriage and Buggy Work, and would solicit a portion of their trade, believing that they will feel fully justified in according it.

The Company would be pleased to have the people call at its shops, for their own satisfaction, and is assured that they will be really surprised at the wonderful improvements made in Carriages and Buggies, and even Carts, at this establishment.

The Company says to everybody: Do not believe that because John Koon made your buggy he ought to repair it; and do not think that Sam Jones' is the best place to get work done, because you have always had it done there. Just take a little time and walk around and see if there isn't another shop in town. You might learn something; and if not, it will cost you nothing.

A great many times people have called at this Company's shops and, after seeing the latest styles, said: "I am sorry I bought so soon. I AM SORRY I bought so SOON. I did not know the Hess Company did that kind of work."

Now, take this into consideration; talk to your neighbors about it, and say: "Let us go down to the shops of the Hess Manufacturing Company." "What for?" "To see the latest styles." "Where did you say?" "Why down at the shops of the Hess Manufacturing Company. It has the greatest assortment in town." "Is that so? Where is its factory?" "On the corner of Green and Liberty streets. Yes, and it keeps a large stock of Single and Double HARNESS."

Now, the Company desires to say, if the above meets your approval, it will be pleased to have you call, and any information you desire will be given to the very best ability of its manager. With sincere respect,

JOHN G. HESS, Manager.
mar-8-6t

Wall Paper and Window Shades

—OF—

EVERY DESCRIPTION.

I have not quit the Paper Business,

as was reported, but am better prepared to do good and quick work, at short notice, than ever before. My prices are lower than the lowest. Give me a call or send me a postal. Send size of room and I will inform you the cost with sample of paper. Remember I will do as before, guarantee all work.

I Make Picture Frames

of every description at way-down prices, and make Window Shades to fit your windows. I have a few Pictures at 33 per cent. less than anywhere in the county. I have a full line of

Groceries and Confectioneries.

Call and examine goods, learn prices and convince yourself that when you take workmanship and quality of goods into consideration that I am headquarters.

Thankful for past favors,
Very respectfully,
feb-22 L. GLADHILL.

Private Sale.

THAT valuable House and Lot, directly opposite the Court House, adjoining the residences of Hon. Charles B. Roberts and Captain Charles N. Kuhn, is offered at private sale. The lot fronts 44 feet on Court street and extends back 273 feet to a public alley. The dwelling is of frame, containing 7 rooms, with good cellar. There is also on the premises a Log Wash and Smoke House, well of good water with pump at the door, good fruit, etc. Possession given at once. For terms, &c., pply on the premises. feb-15-2m

New Liquor Store.

THE undersigned announces to the public that he has opened a Wholesale and Retail Liquor Store, in the basement of the Zieber building, No. 44 West Main street, corner of John street, where will be found a full line of Foreign and Domestic Whiskies, Brandies, Gins, Wines, &c., for medicinal and family purposes, which will be sold at the lowest prices. A call is solicited. Orders promptly filled.

oc-6-1y JOHN A. McNEAL.

AMERICAN SENTINEL.

VOL. 58, NO. 14. WESTMINSTER, MD., SATURDAY MORNING, APRIL 5, 1890. ESTABLISHED 1833.

Select Poetry.

LIGHT IS BREAKING.

Light is breaking thro' the deathly gloom,
And the shadows flee away,
For the Lord lifteth up darkness from the tomb
In the dawn of the Easter day.

CHORUS:

Alleluia, he is risen; The conflict is o'er,
From the bondage of death we are free;
Thanks to Him, thro' the Son evermore,
Who to us giveth victory.

Earth is waking, and the running rills,
Ripple welcome in their voice;
Let the floods clap their hands and let the hills
In the joy of the Lord rejoice.

Let the lillies in their vesture white,
Their fading glory bring
To our thoughts, the bright garments in the light
Of the land of eternal spring.

Select Story.

HOW IT ALL CAME ABOUT.

BY ANNA SHIELDS.

From NEW YOKK LEDGER.

Well, ma'am, it was quite a story, but I never felt free to tell it to anybody before; but since you are so anxious to know about it, I'll tell you how it all came about. Them fine embroideries and the yards of crimping's off my mind now, and if you'll take a chair, I'll talk and rest a bit.

You'll hardly believe me, seeing what a heap Miss Sanderson thinks of me now, that it is only little over a year since I first knew her, but it is just so. It all came about through Jim. Jim's my only son, ma'am, and he's been better'n two year a tow-boy on the horse-cars.

You don't know what a tow-boy is? Well, ma'am, it's the boy that has charge of an extra horse to pull the cars up hill. From five in the morning till three in the afternoon Jim's going up hill with a car or down hill to wait for one. He's a good, steady boy, and his wages are a great help, seeing I am not strong enough for heavy washing, and fine ain't always to be had.

"Well, ma'am, about fifteen months back, Jim, not being well used to the horses as he is now, fell off and broke his arm. He came home, and the pain threw him into a fever, and he was very bad for quite a long spell. It was when he was lying very sick, that one day I heard a knock, and opened the door for the prettiest young lady ever my two eyes saw. She was about eighteen; as white as one of my fine linen collars newly ironed, with the prettiest touch of pink in her cheeks. Her eyes were as blue as the china cup you see on the shelf yonder, and her hair as fine and yellow as corn silk. She was dressed plain, but everything she wore was of the finest quality, and fitted as if it had grown upon her slender, little figure.

"Are you Mrs. McArdle?" she asked me.

"Yes, Miss," I said, hoping it was fine washing she wanted done.

"I heard to-day," she said, "that my best scholar in Sunday School had met with an accident. You are James McArdle's mother, are you not?"

"Yes, Miss," I said. "Will you walk in? and thank you kindly for calling."

She came in and I told her all about poor Jim, and she gave me a basket she had for him with some fruit and flowers all fixed in it like a picture. Not as if it was charity, you see, for we've never come to that, ma'am, though I'm not saying we haven't been pretty hard pushed sometimes. But as I was saying, the basket was as pretty and delicate as if it was for a fine lady instead of a little tow-boy, that had got hurt earning his day's wages.

After that she came often and often, bringing Jim books and little tempting things to eat, and sitting to talk with him, and always as merry as a child though she was a lady, every inch of her.

Then, when Jim was getting better, and the care of him a little off my hands, she asked me to do up her fine things, and her papa's shirts, as if it was a favor I was doing her, telling me how particular she was, and the trouble it was to her to get suited in fine washing.

We'll, ma'm, not to make too long a story, after Jim got well, I went to the house twice a week to get the washing and take it back, and I always saw Miss Emma. It was a grand house, with parlors like a hotel, and wide staircase, and great bedrooms splendidly furnished. And Miss Emma had no mother, but was the mistress of it all.

I was all taken aback the first time I saw her pa, for he was as rough as she was gentle, and looked more like a laboring man than a fine gentleman, for all his fine clothes. But he was very prompt to pay, and always had a pleasant word for me about the beautiful ironing of his shirts and cuffs. And, though I say it as shouldn't, you might go along way to find prettier linen than I took up every week to Mr. Sanderson's. But, after a bit, I noticed that Miss Emma was losing her pretty smile and merry words, and was pale and often red-eyed, as if she had been crying. Jim, who was seeing her, you mind, every Sunday, he told me he noticed it too. We, who thought we knew our place too well to say a word, were very sorry, for there was a trouble somewhere, we were very sure.

One night, Jim, while he was eating his supper, heaves a great sigh, and says to me:

"I think I know what ails our Miss Emma, mother," says he.

"What makes you think so?" says I.

Jim's a master hand, ma'am, to read, and he gets the papers often that's left in the cars, and reads the stories, or maybe he wouldn't a noticed what he did.

"Why mother!" says he, "there was a gentleman used to come with Miss Emma to church. I've seen him often an' often, but he never come to Sunday School, only to church. He wore diamond studs, and shiny boots and a silk hat—a regular swell; and she used to look as pleased as a baby with a toy when he was with her. Well, he hasn't been to church for more'n a month, and I'm thinking he has lost his money, and her pa's sent him off."

I pooh-poohed that and told Jim he was silly, and didn't know what he was talking about. But he says:

"You didn't hear me out, mother. To-day there was a new conductor on 32, and it was Miss Emma's beau—Mr. Thatcher!"

Well, I did stare, and was sure Jim was mistaken, but he said he'd know Mr. Thatcher anywhere, and he was sure that was him. We talked about it a long time, but you see there was nothing we could do, and I thought was right, after all, and maybe Miss Emma's pa had sent the poor fellow off, when he lost his money.

It was, maybe, two weeks after that, or three, that one day Mr. Sanderson came to the house all in a flutter. Miss Emma was sick with typhoid fever and they wanted a nurse, and she wanted that nurse to be me. Dear, dear, but I was flustered; but I sent Jim to his Aunt Jane's to board, and shut up the rooms, and went off to the grand house.

Poor Miss Emma! We nearly lost her, though her pa had the best doctors, and I nursed her faithful. She took the fever visiting one of her other Sunday School scholars, and she was not very strong any time, so she took it very hard. One day, when she was very bad, I heard her ask her father:

"Papa, where is Harry?"

"I don't know," he said.

Then he began to tell her something in a very low voice, and I went down stairs to make lemonade, not to hear what wasn't meant for me. The poor young lady was very sad all that day, and I mistrusted she cried, when no one was watching her.

It was none of my business to interfere, but I fretted more'n a little about what Jim had told me, and wondering if Mr. Thatcher was Harry. I couldn't ask Jim, because I would not let him come near me for fear of the fever. Miss Emma was so weak, too, I didn't dare for her life say anything to excite her, and so I held my tongue till the fever took a turn and she began to get better.

It was up-hill work then with us, for she was as weak as a baby, and didn't seem to care to get well. She had to be coaxed to eat or to try her strength, and was willing to lie quiet all day, which aint natural in young folks after long sickness. Most times they are in too great a hurry, and throw themselves back again.

The doctor said she wanted rousing. So one day, after she had her bit of toast and a little bird nicely browned, with the best cup of chocolate I could make, I coaxed her to sit up a bit in a great arm-chair. When I had her all comfortable, I said:

"Miss Emma, I've been wanting to tell you something for a long time, but I was afraid you'd think I was stepping out of my place."

"I should never think anything unkind of my dear, good nurse," says she, and slipped her little, thin hand in mine so loving it made the tears come in my eyes.

"Well, Miss," I said, "if you won't think it is impertinence, I'll tell you. Jim told me that he saw Mr. Thatcher in the cars a bit before you was taken sick, and—well, Miss, don't feel too bad about it—he was a conductor."

I was afraid she'd faint, ma'am, or cry. I was never so took aback in my life as I was at the way she acted. She sat right up in her chair and clapped her two little hands together, and just laughed like a child. All the merry light that was gone so long from her eyes came back.

"Oh, you dear, darling nurse," she said to me, "I could just kiss you, and I will!"

And she did!

"How did he look?" she asked me.

"Jim said he looked very grave, and as if he had some care on his mind," I told her, "and he had none of his fine clothes on, but a gray suit and a slouch hat."

She laughed again at this.

"And did he take the fares, just like any other conductor, and ring the bell?"

The idea of that tickled her so much that she had to laugh again. I suppose I looked as astonished as I was for pretty soon she said:

"Now, for your good news, you shall know all about it. I suppose you guessed," and she got rosy-red, "that Harry and I were lovers!"

"Jim suspicioned it!" I said.

"Jim has sharp eyes! Now you must know first, dear nurse, that my father, though he is a very rich man now, was as poor a boy as Jim is, and he made all his money by hard work. So he has a great contempt for young men who do nothing. He thinks every man in this country, rich or poor, should have some honest work to do, and do it. Money is often lost, you know, nurse, and if a man is too fine to work, he may starve."

"Indeed, that's so," I said.

"Harry—Mr. Thatcher—nurse, had a large fortune left him by his father, when he was a boy, and he never did a day's work of any kind in all his life. I did not know why he stopped coming to see me, and—well, I will tell you—I felt ashamed and sorry, for I thought he did not care for me as I had thought, while I did love him. Of course, nurse, nobody knew that, and nobody ever should know it, only that you have told me such good news to-day. When I was so very sick I asked father where Harry was, for I knew he saw him the very last time he was here. Then he told me that Harry came that day to ask if he might marry me if I loved him. He told papa that he was rich, and we know he is an honorable, good man. Then papa told him that he would never give me to an idle man.

"'When you can show me three months' honestly earned wages, from your own work, I will let you court my child!'

"That was what papa said to him. He thought he was angry, for he turned on his heel and went out of the house without any answer. But he is earning his wages to show papa!"

She was as happy as a bird after that; getting well so fast that the doctor wondered, and so did her father, for we kept our secret, and Mr Sanderson never guessed what made Miss Emma so merry.

When Jim could come without any danger from the fever, Miss Emma sent for him, and then she made him tell her just how the new conductor looked, and all about him.

"Is it real hard work, Jim?" she asked;

"It is, Miss; early and late, and in all weathers. But Mr. Thatcher stands it first rate, though he is burnt some!"

Then Miss Emma made Jim remember the very day Mr. Thatcher went on the cars first, and noted down the date on a card. She would not let me go for several weeks, and paying me big wages all the time, as if it was just hard nursing like the first.

So I was still there when the three months were over, and if I hadn't known, I should have guessed there was something Miss Emma expected that day.

She dressed herself in a new white organdie, as fine as a hair, with a little blue sprig all over it, and she put on a blue ribbon under her lace collar, and in her hair. She couldn't settle down to read or sew, but just fidgeted about all the morning.

"I know Harry will come to-day," she whispered to me.

And sure enough he did come. Miss Emma was in the large parlors, and I was fussing about there too, knowing all the time she was keeping me busy there just for company. Mr. Sanderson's private sitting-room is off the parlors, and we heard somebody go the whole length of the hall, and knock at his door. Miss Emma took hold of me, all rosy and trembling, and then we heard a man's voice say:

"There, Mr. Sanderson, are three months' wages, honestly earned by hard work. And there is a letter from my employers, recommending me for sobriety, industry and honesty."

"Well done!" we heard Mr. Sanderson say. "You will find Emma in the parlor."

I went out at one door just as Harry Thatcher came in at another, diamond studs, shiny boots and all.

"Well, ma'am, that is all there is to tell, except that the wedding is to-morrow, and I am to go up all day and help the housekeeper. Every bit of the fine linen and embroidery I have done up myself, and it would do your heart good to see the piles of it, fluted and crimped fit for a queen.

Jim, he's got a holiday too, to go to the church, and the Sunday School class have ordered a beautiful basket of flowers that Jim is to present to the bride.

And I hope you'll excuse me now, ma'am, as I've told you the whole story, and there's cuffs and collars to do up for Jim, and a power of odds and ends I must attend to, so's to have a free foot for Miss Emma's wedding-day to-morrow.

THE GIANT SUN.

From CHAMBER'S JOURNAL.

To those unacquainted with the marvels of astronomy the above title may appear a little strange. For surely our sun must be considered a giant, "giant in size," as Sir John Herschel says, "and giant in strength, but withal a benevolent giant, being the almoner of the Almighty, the delegated dispenser to us of light and warmth, the immediate source of all our comforts, and indeed of the very possibility of our existence." Is there, then, any orb in the heavens superior to our sun, and more worthy to be styled a giant?

In comparing things on earth, we look upon this our planet as a giant, relative to the size of any thing terrestrial; our highest mountains, our deepest oceans, are but specks compared with the huge mass of the earth. Then look at Jupiter, the noblest of the planets, acting as a subordinate sun to his system of satellites. This globe is hundreds of times larger than our world, and its mass even exceeds the combined mass of all the other planets. Yet vast as is the bulk of Jupiter, he seems dwarfed into insignificance compared with the sun's magnificent globe; a thousand Jupiters would not make up the volume of the sun nor outweigh his mighty mass. To speak of any other orb as being a giant sun, would seem to imply that there exists in the universe a globe bearing some such proportion to the sun as the sun does to Jupiter, or Jupiter does to our earth. Inconceivable as the idea of such a globe may be, it is, however, such a globe that I now wish to describe. As the late Richard Proctor said:

"Mighty as is the globe of the sun, there is an orb more than a thousand times vaster. Grand as is the scheme ruled by the sun, and inconceivable as are the forces exerted by the sun upon the orbs which circle round him, there is a sun which exerts forces many times more mighty on orbs which themselves probably exceed our sun in mass and volume. Magnificent as is the conception that our sun with its attendant family of planets is sweeping through space at a rate of two or three hundred miles every minute, the sun of which I speak carries a far mightier train through space at a rate many times greater." Look towards the south any clear night during the winter months, and you will see, low down, a star which will immediately arrest your attention, not only by its superior brightness, but also by its constant change of color, at one moment red, at another green, at another white. This is Sirius, the famous Dog-star of the ancients, the most brilliant star in the heavens and the largest known orb in the universe. It is difficult to conceive that this beautiful star is a globe much larger than our sun; yet it is a fact that Sirius is a sun many more times mightier than our own. That splendid star, which even in our most powerful telescopes appears as a mere point of light, is in reality a globe emitting so enormous a quantity of light and heat, that were it to take the place of our sun, every creature on this earth would be consumed by its burning rays.

Sirius shining with a greater luster than any other star, it was natural that astronomers should have regarded this as being the nearest of all the "fixed" stars; but recent investigation of the distances of the stars has shown that the nearest to us is the Alpha Centauri, a star belonging to the southern latitudes, though it is probable that Sirius is about fourth on the list in order of distance. For though there are about fifteen or twenty stars whose distances have been conjectured, the astronomer knows that in reality all of them, save three or four, lie at distances too great to be measured by any instruments we have at present. Astronomers agree in fixing the distance of the nearest star at twenty-two million of millions of miles; and it is certain that the distance of Sirius is more than three and less than six times that of Alpha Centauri, most likely about five times; so that we are probably not far from the truth if we set the distance of Sirius at about a hundred million of millions of miles! What a vast distance is this which separates us from that bright star; words and figures of themselves fail to convey to our minds any adequate idea of its true character.

To take a common example of illustrating such enormous distances: It is calculated that the ball from an Armstrong hundred-pounder quits the gun with a speed of about four hundred yards per second; now, if this velocity could be kept up, it would require no fewer than ten million years before the ball could reach Sirius! Again, take the swiftest form of velocity of which we have any knowledge, light, which travels at the rate of nearly two hundred thousand miles per second, or about twelve million miles a minute, yet the distance of Sirius is so vast that it takes nearly twenty years for its light to reach us; so that if Sirius was suddenly to become extinct, we should not be acquainted with the fact till twenty years hence.

Now, the work the astronomer has to do in order to calculate these distances is one of the greatest problems he has to solve, and the manner of his investigation may not be out of place. By way of illustration, take a room having two windows looking in the same direction; now stand at one window and select a certain object, say a tree, and notice the position in which it stands in relation to its surroundings; then look from the other window at the same object, and you will find that its surroundings have slightly changed; they have apparently shifted their position, owing to your having observed them from a different point of view. This is precisely what an astronomer does to determine the distance of a star; the earth in her wide circuit round the sun is in winter on the opposite side of the sun to what she was in summer, and consequently the earth's distance from the sun being about ninety-one million miles, we see the stars from two different points of view, one hundred and eighty millions of miles apart. But vast as is this base-line, any change in the position of a star is, with one or two exceptions, altogether inappreciable, and Sirius stands barely within the limits of any approximate estimation. In fact, this star, viewed from the two extremes of the earth's orbit, shows a displacement of position equal to about the five thousandth part of the moon's diameter, so that it is almost impossible for astronomers to determine the distance or dimensions of Sirius by this means.

Bright as the Dog-star appears to the naked eye, in the telescope it appears as a mere point of light; and even in the largest telescopes constructed, though its light is greatly increased, a definite disc or outline, as is seen in the planets, is quite undiscernible; for if the power of a telescope was sufficient to raise a disc on the star, it would be almost an impossibility to distinguish it, owing to its great brilliancy; for as Sir William Herschel tells us, when Sirius was about to enter the field of view of his forty-foot reflector, "the light resembled that which announces the approach of sunrise;" and when the star was in the field of view "it appeared in all the splendor of the rising sun, so that it was impossible to behold it without pain to the eye."

Now, if astronomers could measure the disc of Sirius, they could from that determine its distance and measure its dimensions; but as no outline is appreciable, they resort to comparing the light received from this star with that which we receive from the sun, and by this means they are able to form some conclusion as to its probable size. After the most careful comparison of the light of Sirius, the sun and other stars, astronomers agree in fixing the volume of Sirius as exceeding our sun nearly five thousand times, and his diameter as exceeding our sun's seventeen times, so that the diameter of this giant orb is probably no less than over fourteen millions of miles!"

To the philosophers and scientists of the last century, it must have appeared incredible that at any future time scientific discoveries would have enabled us to tell with certainty the composition of the stars. Yet during the last fifty years the science of spectrum analysis has so far advanced, as to give us undeniable proof of the existence of certain elements in the sun and also in the stars, similar to those with which we are acquainted on earth. As Dr. Higgins says: "We now need not teach our children that little couplet, 'Twinkle, twinkle, little star, how I wonder what you are!' because we really know; we have in the place of wonder, knowledge." Of this method of ascertaining the composition of a distant body by its light, it is sufficient here to remark that it is due to the fact that, when a ray of light has by means of the spectroscope passed through a glass prism, it is spread out into a broad band comprising all the colors of the rainbow. This band or spectrum is in the case of the sun and other similar bodies crossed by a number of fine dark lines, which correspond to the various elements present in their constitution. Now, if certain gases, such as hydrogen or sodium, be burnt and their spectra examined, lines similar to those in the sun's spectrum will be found; and if the two are compared, the presence or absence of such elements in the sun may be inferred. By this means of spectrum analysis it has been found that the sun contains a large number of terrestrial elements, including hydrogen, iron, sodium, magnesium, zinc, lithium, copper, oxygen and many others; of these, the first four mentioned have been discovered in Sirius; and doubtless most of the others exist also, as the spectrum of this star resembles that of our sun in all essential respects, though it can not be observed under the same favorable conditions.

By means of the spectroscope a very wonderful discovery has been made respecting Sirius. Astronomers had noticed that this star was in rapid motion through space, as it was found that year by year it was changing its position in the heavens, traversing in about fifteen hundred years a space equal to the apparent diameter of the moon, at a velocity of no less than twenty miles per second. Of course, by actual observation the only motion capable of being detected would be that which was square to the line of sight, so that although Sirius appears to us to move across the heavens, he may really be traveling in a slanting direction, either towards or from us. No one would ever have expected to be able to tell whether a star was approaching to or receding from us, yet even this seemingly insolvable problem has of late years been accomplished by the spectroscope. Dr. Huggins, our greatest authority on this subject, having identified certain lines in the spectrum of Sirius as those of hydrogen, found on comparison that these were displaced in such a manner as to indicate that the star was receding from us. It has been estimated that this recession combined with the thwart motion of twenty miles per second, gives as the actual movement of Sirius in space a speed of about thirty-three miles per second.

These, then, constitute some of the chief items of information about Sirius at present within our knowledge.

There seems to be no reason to doubt that, in common with other suns he has his system of planets circling around him after the manner of our own sun; and what a system! Vast as ours appears, it is dwarfed into insignificance compared with a system whose ruling orb is five thousand times larger than that which does duty for us. There seems also no reason to doubt that these planets are intended to be the abode of life; it may be that at the present moment none of them present any signs of life; but I think we may safely infer without improbability, that each one of those worlds has a destined period in its development during which, life, similar to that which now prevails on our planet, would be in existence. What a world such a one would be, in size perhaps not inferior to that of our sun, himself a million times larger than our earth; and it may be that as this Sirian world is so vastly superior to ours in size, its inhabitants would be on a scale in proportion to its dimensions, a race of beings of such intellect and civilization, compared with whom we are but savages.

Such systems as these may possibly belong to a higher order of existence, a state of things to which we can never attain, and a degree of perfection to which we can never hope to arrive. Be this as it may, we have sufficient evidence to prove that Sirius is a sun of the highest order of creation, and an orb well worthy to be titled "the giant sun," for of all the stars of which we have any knowledge, none other more worthy deserve distinction than this, the great Dog-star, the king amongst suns.

Dignity, my son, is a very proper sort of thing; but don't put on too much of it, or you may be taken for a footman.

That for which a woman should be consoled she is most often ridiculed—her homeliness.

The People of New Guinea.

But little knowledge of the interior of New Guinea, the second largest island in the world, can be obtained from its peoples, which consist of a great number of isolated tribes, differing much in appearance and language. These communities live at constant feud with one another, and can give little information of tribes beyond the limits of their respective domains. There are a variety of types among the people, the prevailing characteristics of race being those known as the Papuan, which are found especially in the southeast of the island. In this type is found long frizzy hair, which is dressed by its owners into the form of a mop; a skin removed just a shade from black; a prominent aquiline nose, depressed at the point; and protruding lips, which causes the chin to appear to retreat. Leprosy, elephantiasis, itch, and ophthalmia are frequent among the New Guinea natives, and fully a third of them are afflicted with a malignant ringworm caused by a microscopic insect. Among certain coast tribes of the island the intermixture of Arab and Malay blood has produced a fairer type of people, superior to the Papuans; other New Guinea tribes resemble the Polynesians. In the mountainous northern part of New Guinea, at Andai, are the Arkfaks, which are described by D'Albertis as a fine, tall, strong people, superior to natives of the coast. The type of the mountain tribes is generally Papuan, and the expression of their countenances is melancholy. Among them, according to this explorer, are albinos; and some tribes have the woolly hair of the genuine negro. Among the natives the level of civilization varies, but it seldom reaches even the average Pacific Island standard. They have no single name for New Guinea, nor any idea of its extent, only using terms signifying "great land" to distinguish it from the adjacent islands.

Killed His Horses.

I fed some eight or ten horses on corn silage some two winters ago with good results, but subsequently came to the conclusion it was much better for cattle than horses, and have not fed it since to horses, except occasionally as a change. I am feeding my dairy cows on corn silage at this time with great success.

Expecting to have a number of hogs to winter on an adjoining farm and not having a silo, I dug a pit in the field, cut and packed sixteen wagon frames of green clover into it, most of it perfectly wet and green.

(The rain at the time was excessive.) This was put up to feed hogs, but losing all my hogs by cholera in the fall I determined when opening the pit, if in good condition, to feed the silage to horses and cattle. I omitted to say, after packing it in the pit we covered the mass with wheat straw and returned four feet of dirt on it. In this way it remained until in December, when it was opened and found to be in good condition, the bloom and leaf of the clover perfect in form, in color a dark brown. The horses and cattle ate it ravenously; all seemed to be doing well on it for about four weeks, when we found two of the horses down in their stalls and before midday they died. We sent a man on another, apparently well, for medicine. She was taken sick on the road and died about midnight, and within the week I lost nine—all except a very old mule and two sucking colts.

I sent immediately to Dr. Clements, who is employed by the general Government and has his laboratory in the Johns Hopkins Hospital, of Baltimore. He came and dissected and took to his laboratory different parts of the intestines, and after examination he pronounced the cause of death from eating the clover silage—from excess of nitrogen caused by exposure to the air.

I fed cattle on it at the same time and saw no preceptible effect on them but one, and that was slobbering, like all the horses, but this I attributed to the second growth of some of the clover. But this in the cows soon passed on. My silo at the home place is a wooden structure, above ground, forty feet by twelve feet, thirteen feet deep, double-lined with tarred paper. This keeps in elegant condition, but my experiments in putting the cut corn, in half-inch lengths, in a pit like the clover experiment, turns out the best silage I have ever seen.

I would like you to publish this letter to put brother farmers on their guard as to how they use the clover silage with horses.

The man who tries to argue a woman into loving him may succeed, perhaps, but he must have a long life and no rival.

Wax Mines.

"The wax mines or ozokerit deposits of eastern Galicia, which a syndicate of American capitalists have leased or purchased," said D. M. Fox, of Pennsylvania, who recently returned from the fields of Austro-Hungary, "form one of the most curious fields of industry imaginable. They are at and around Boryslaw, which is also the center of the eastern oil district of that part of Austria. They have been for generations in the possession of people who have worked them in the most primitive manner. The wax lies in beds, like clay, at depths of from 350 to 600 feet. Shafts are sunk in the beds. The sides are curbed with timbers, but in such a careless and unscientific way that they are constantly caving in and burying workmen in their depths. From four to six men are killed in this way every week. The owners of the mines are persistently refusing to go to the expense of making their shafts safe, and the laborers are at their mercy.

"The Boryslaw wax field is only fifty acres in extent, and upon that 10,000 shafts have been sunk. Twelve thousand men live and work on that tract. The owners of the deposits have made immense fortunes from the product, as it is very valuable, bringing eight cents a pound at the pits. Its use until within a few years was confined solely to making candles, but the manifold uses to which paraffine has been adapted has given this Galician deposit a much wider utility. The ozokerit lies in veins sixteen inches thick. It is dug out with shovels, and raised from the shaft with buckets and windlass. The owners are the only merchants, bankers and hotel keepers in the region. Everything is mortgaged to them. The men shave their heads, leaving only a tuft of hair at each temple. The women also shave their heads, wearing mohair wigs instead of their natural head covering."

Fighting Red Ants in India.

I lighted a cheroot and steadily blew the smoke where the ants were the thickest. Never in my life have I seen anything like the frenzy of passion which followed the first few puffs. To be attacked by an enemy of which they could not lay hold seemed to be really too much for them. In their rage they lay hold of each other, and, as a red ant never lets go, they were soon linked together by heads, legs and antennæ into one horrible, quivering mass. I left these, and, going to another place, offered the end of my cheroot with about an inch of ash on it. Several seized it instantly. The heat killed them, but others laid hold of their charred limbs, and by their united strength they positively wrenched off the ash, which remained hanging from the tent rope, by their jaws, while scores hurried from both sides with fiendish fury to help in worrying it. I then presented the hot end. The foremost ant offered battle without a moment's hesitation and perished with a fizz, but another and another followed, and I saw plainly that I was beaten again, for the cheroot was going out, while their fury only burned the more fiercely.

A Wonderful Lilly.

One sometimes hears of the wonderful productiveness of the golden lily—Lilium Auratum, Lindley. Some years ago an instance was recorded of one stalk, under cultivation, bearing no less than thirty-five flowers. This happened at Pitlour, in Fifeshire, Scotland, in 1886. The record is quite beaten by a plant in the garden of a foreign resident at Karuizawa, which is now bearing no fewer than fifty-seven flowers on one stalk. The stalk itself is six feet high, and toward the upper end it flattens out, the buds hanging like keys on a board. The upper extremity is cleft. Room is thus allowed for the remarkable luxuriance of flowering just described. In *The Far East* of Sept. 16, 1872, it is stated: This summer there grew in the garden of Mr. G. C. Pearson, on the Bluff (No. 111), Yokohama, two stems from one bulb. One was a fair specimen of the ordinary flowering of the plant, having eighteen flowers upon it; but the other, upon a broad, flat stem, about an inch and a half in width, but thin as a lath, had no less than sixty-three buds of which fifty-two were in full flower at one time.

"People who endorse others for positions say very strange things once in a while," remarked a western Senator. "I received papers the other day urging the nomination of a constituent of mine as a chaplain in the army, and one of the documents, after saying a number of nice things about the candidate, and detailing his long service as a minister of the Gospel, wound up with the emphatic remark: 'He is a man of good moral character.' How's that."

There are said to be nearly 3,000 women in Washington who ride bicycles and in Chicago there are more than 1,000.

The Czar of Russia owns about 50,000,000 acres of land, and may claim to be the largest real estate owner in the world.

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