

PRACTICAL FARMING.

Apply Lime in the Fall.

The best period of the year for the application of lime to the soil is in the fall. Lime is a plant food, and is essential, and while it exists to a more or less extent in all soils, yet it proves beneficial on both heavy and light lands, assisting to render heavy soils lighter and light soils heavier. It does not take the place of phosphates, nor can it be substituted for wood ashes, which contain Potash, but it is capable of enabling plants to derive both potash and phosphoric acid from the soil by inducing chemical processes by which the insoluble matter of the soil is changed in composition, thereby becoming of a condition which permits of the use of such foods by plants. The small cost of lime, and its lasting effects in the soil, should stimulate farmers to use it more liberally than is done, and as it benefits nearly all kinds of crops and injures no soils, its use is one that results in benefit, and especially when applied on soils intended for crops that have an abundance of lime in their composition.

The tendency of lime is to work down into the soil, every rain carrying it deeper. Lime that is recently soaked is a hydrate, and is easily diffused by the rains, but after exposure in the soil it reverts to its original condition of carbonate, being then again insoluble. During these changes, when losing its characteristic as a hydrate to become a carbonate, it compels other substances in the soil to change their forms also. When stone lime is burnt, in order to produce lime, the carbonic acid is driven off, and lime is the result. When the lime absorbs moisture from the air (air-slaking) it combines chemically with the water, forming a hydrate. In this condition it is applied to the soil. But the lime will not remain a hydrate, preferring to again become a carbonate, and it is this desire (or affinity) to combine with carbonic acid that prompts it to force the chemical changes in the soil which release plant food existing in the soil, but which plants can not reduce.

It requires quite a time for lime to complete its work in the soil. Applied in the fall it will, with the aid of the frost, have the land in excellent condition by spring, especially if the lime is broadcasted over the surface of the soil after a green crop has been turned under. It is more serviceable when used in connection with green manure crops than under any other conditions. On light, sandy soils it always gives excellent results, permitting of the growing of clover on soils that usually give but small crops, and on heavy soils the land is made more friable and less tenacious. Some farmers apply lime once in three or four years. It is better to apply forty bushels per acre in the fall and ten bushels every year thereafter than to omit it at any time, as the most benefit from lime is when it is in the condition of a hydrate.

Fall Chickens.

We want to say a few words about the management of fall chickens, as that season is now at hand.

A chick can be petted and spoiled, until it becomes like unto a hot house plant, but that is not the way to manage the fall chicken if you would raise it. It needs air, sunshine and moderate range, to be fed well and hands off.

Now, let's go to work and set a hen, then while she is setting, fix up a place for her and her chicks, by the time they are hatched; no matter if we live in town, or in the country, our plan works well in either place, and right here let us say that many a little chick owes its timely end to too much wet weeds, or too much of a thunder-shower, and not enough shed and protection.

So, we make first a shed six feet wide and four feet deep, we enclose it at one end and the back, and lattice the front and one end, with a door in the lattice work. Five feet high, in front and four feet in the back will do. Now, we will go and take our hen off with her chicks and deposit them in our new shed coops, a large roomy coop that costs us about one dollar, and three hours' work; but mind you, it is good for a dozen more broods, or even more, so the cost is not too much.

We feed water and keep our hen and her brood in her new coop for ten days or more. In the meantime, we shall have built a small pen, about ten feet by twelve feet, so located as to have our large coop at one front corner of it. The pen is built of laths, with light stringers and posts, at the cost of another dollar, and as soon as built it is seeded to oats, that have come up and are two or three inches high by the time our chickens are two weeks old, so that as soon as we let them run out in their pen they have plenty of green food, and the insects that always attend such little spots.

If the little yard can be built about a shrub, a small tree, or some bushes, growing corn or sunflowers, why so much the better. But the latter things are not so very necessary as the shed-like coop makes shade and a cool retreat.

Chickens that have such pleasant little homes do not stray away, but thrive and mature early.

Look Here.

Many farmers are of the opinion they should be able to hire a man to operate their creamery for about the same wages they pay their hired man, so they hire some one who has passed by a creamery and stepped in and witnessed the process of making butter. This party will come to these farmers and say to them, "I have had experience." They will hire him, paying him about a third what a good man would ask. He goes to work. The first shipment of butter which goes on the market produces this reply: "Your butter is poorly made,—no grain, not salt enough, streaked, etc.; please advise what we shall do with it."

A Pointer.

Mr. Goodrich, a noted dairy writer, tells of his conversion to the debatable practice of feeding meal to cows while on

good pastures. He did not believe it paid, but he saw so many of the best dairy-men doing it that one season he concluded to try it against his own convictions and in the face of the ridicule of his neighbors. The result was, to his amazement, that at the end of the year, he was 50 pounds of butter per cow ahead of the previous year's record, though the meal did not much increase the flow of milk or its richness at the time it was fed, but it seemed to give the cows good staying qualities up to the last of the season, and it is amazing how much there is to be gotten out of the tail end of the milking season with good previous care. Mr. Goodrich says that he figured it out that he has a return of \$2.00 for every dollar he paid for the meal he fed while the cows were at pasture.

Fix the Cows' Bedroom.

Have you looked over the stables, and do they need some repairing to make them warm, light, and cheerful for the cows during the long winter months? Perhaps the floors need repairing, the mangers fixing up; or perhaps a little paper put on the walls to keep the cold out would be beneficial. If the stable is dark, put in a window or two.

Attend to all of this now while you have time and while it is on your mind. Don't put it off thinking that you have plenty of time for such work; if you do, it will not be done, or but partly done. You will not be satisfied with it because you have been obliged to do it in a hurry, the cows may suffer by such neglect, and you will lose money every time they do suffer.

Tit-Bits.

A Question of Brains.

Modesty about one's mental acquirements is a good thing, but it must have been carried too far in the case of a witty Irishman whom a correspondent once met. The Irishman was at work at a stone quarry, pulling up loads of broken rock out of a shaft, with a windlass.

The windlass was exposed to the sun, and the labor was very hard, but the man had on his head a straw hat from which the crown had been torn.

Look here said the visitor to the Irishman, aren't you afraid the sun will injure your brain?

Pat paused in his work, and looked steadily and wonderingly at his questioner. Brains! said he. Me brains, is it? An' do ye think that I had any brains I'd be turnin' this windlass?

Couldn't Wait.

Uncle Allen Sparks is learning to ride a bicycle. The other day he was in the midst of his third lesson, wabbling from side to side, when he was heard to mutter:

It's no use. I can't be like Davy Crockett. I've got to go ahead before I am sure I'm right.

She was Mistaken.

She—No, it can never be. I like you as a friend—I respect you—I admire you; but that is not love, you know, and I cannot be your wife. But do not do anything rash; try to bear up under it, for I am sure there are others more worthy of you than I am.

He—Very pleasant weather we are having.

Ye-s. very.

I am glad of it, too, and hope it will continue. You see, my friend Jack's little sister is coming to the city to-morrow to stay some time, and he wants me to show her the sights. She is a dear little child with golden hair, and heavenly blue eyes, and the sweetest little face imaginable. I never saw such a perfect little angel as she was the last time I saw her.

How—how long is it since—since you saw her?

About ten years; I think. She was just eight years old then.

Eight and ten are—Horror! If you dare to go near that girl, I'll—I'll kill myself, so there!

She Laughed.

George—You are not calling on Miss Rosebud any more, eh?

Jack—No, I got disgusted. She has such a coarse laugh.

George—I never noticed that.

Jack—You would if you'd been within hearing when I proposed to her.

At a Safe Distance.

Clara—All the girls are taking boxing lessons. Aren't you scared?

Young Bachelor—No; I always keep away from bargain counters.

Willing to Oblige.

Mr. Dudding—Waitah, you hov fohgotten the—aw—finger-bowl.

Waiter—We don't serve finger-bowls any more, sir; but when you get through rooting around among the vittles, I'll bring you a wash-basin if you want it.

Knowledge and Money.

Rags—Some people have more money than they know what to do with.

Taggs—They seem to know what to do with the dimes I ask them for.

Too Sweet for Anything.

Clasping her hand in my hand
As we walk;

Seeing my eyes in her eyes
As we talk;

This is the ecstasy;
This is the boon

Of a late autumn memory
Of a sweet day in June.

Linguistic Ability.

Jinks—My wife speaks four languages.

Hinks—Mine only finds time to speak one.

Easily Fixed.

Mrs. Brick-w—How do you manage to persuade your husband to buy you such expensive bonnets?

Mrs. Topflatte—I take him shopping with me, walk him around until he can't stand, and then wind up in a bonnet store. He'll buy anything to get home.

MR. AND MRS. BOWSER.

As the Bowser family got up from the supper table the other evening a boy called at the door to leave a bundle, and as Mrs. Bowser caught sight of it she turned to her liege lord and asked:

"Well, is it another fire-escape or what?"

"Mrs. Bowser," he began, as he carried the bundle into the sitting-room, "do you remember of saying the other day that the back bedroom up-stairs needed re-papering?"

"Yes, I said so."

"And you asked me to speak to a paper-hanger about it."

"Mr. Bowser!" she exclaimed, "have you gone and bought paper for that room without my seeing it?"

"I have bought the paper for the room, madam! I didn't propose to have you trotting down to the store every day for six weeks to select and purchase five rolls of wall-paper!"

"But I—I wanted to select it!"

"Yes, I presume so, but the paper is here before you. Instead of being six weeks about it I selected it in about three minutes. There it is, and how do you like it?"

"Why, Mr. Bowser, it's almost black!" she gasped.

"Certainly. I preferred a dark paper."

"And it's half paper!"

"Yes, you could put it on a hall if you want to, but we shall put it on a bedroom. Isn't it artistic?"

"It is simply frightful!"

"That's as one has been brought up, Mrs. Bowser. As you were born and reared in a log house, with a frog-pond in front, of course you know nothing about art. If the pattern portrayed a yaller dog chasing a wall-eyed cat through a cabbage garden you'd probably go into ecstasies over it."

"Who is going to put it on the wall?"

asked Mrs. Bowser, deeming it politic to ignore his sarcasm.

"A chap about my size."

"But you—you—!"

"Stop right there, Mrs. Bowser! I am not going to pay a paper hanger \$30 or \$40 and have him around the house a fortnight to do what I can do in two hours. I'll put this paper on the wall as if it grew there, and I'll do it this very evening. You just tell the girl to make me a pan of paste and then sit down and fold your hands or stick your nose in a novel. You won't be troubled in the slightest. I'll get the stepladder and change my clothes, and if I don't make as neat a job of it as you ever saw I'll eat my hat!"

"Mr. Bowser," said Mrs. Bowser, as she accompanied him to the foot of the stairs, "can't I prevail upon you to let me see to that room?"

"Why should I leave that room alone? It needs re-papering. I can do it. I need the exercise. I can save money enough to get me a new fall overcoat. What is the matter with you Mrs. Bowser?"

"Something will happen—and you will get mad and blame me—and—"

"That will do, Mrs. Bowser! Just get out your novel and sit down to read! Nothing will happen, and no one will get mad, and the work will be finished by 10 o'clock."

He ran up-stairs and she turned away to give instructions to the cook to make the paste and carry it up. A quarter of an hour later Mr. Bowser was at work. He cleared the room of all furniture but the bed, got an old table out of the store-room to paste on, and when Mrs. Bowser looked in on him he was just pasting his first strip on the wall.

"You must have guessed at the length of the strip, for it's six inches short," she observed.

"Do you know anything about the business of paper-hanging?" he demanded as he looked down upon her.

"No, but anyone with half an eye can see that you haven't got that strip plumb up and down."

"Never you mind about the plumb up and down business! I was hanging paper before you could step over a cat. When I want you I'll call."

Mrs. Bowser had scarcely gotten down-stairs when there came a crash which made things shake. She knew what it was but didn't go up. Mr. Bowser had taken a header from the step-ladder as he started the second strip. He didn't call her, however, and so she waited. Ten minutes later there was a different kind of sound. The first thing was a yell. Then came a jar, and this was followed by a crash and a whoop. Mrs. Bowser figured it out as she hastened up-stairs. Mr. Bowser had fallen on the bed and bounded off on the floor and was probably tangled up with some thing. She had it pretty straight. In bounding off the bed his feet had struck the table and overturned it, and the pan of paste had upset and deluged his whole body. He was in a dazed condition as she pulled the table out of the way and began to sop up the paste with a towel, and nothing was said for a couple of minutes. Then, as he opened his eyes and looked around she asked:

"Mr. Bowser, are you hurt?"

"Your little plot didn't quite carry out, did it?" he exclaimed as he slowly assumed a sitting position.

"What do you mean?"

"Don't try the innocent lamb business with me, Mrs. Bowser!" he shouted as he got up and kicked the paste-pan across the room, "you were mad because I selected the paper. You were opposed to my hanging it. You wanted your own way about things, and because you couldn't have 'em you thirsted for my life!"

"Why, Mr. Bowser!"

"Don't why Mr. Bowser me! I'm a nice looking object, ain't I! That fall would have killed nine men out of ten! Get out of here and let me get into the bath-tub!"

"But you don't blame—"

"I see the plot, Mrs. Bowser, and I have my eye on the plotter! Don't make your crime the more heinous by falsehood! Some one crept up and yanked on that stepladder. The idea was that I would tumble and break my neck, and only the hand of Providence saved me!"

"And will you—you—"

"Yes, madam, I will seek a divorce! This is the last hair! When a husband's life has been attempted a score of times no

court will oblige him to live on with the wife. To-morrow—"

But she didn't wait. She knew what he was going to say, and she went down-stairs and left him to make his way to the bath room. At 10 o'clock as he had not come down-stairs, she crept up and found him in bed and asleep, and as she noticed the martyred look on his face she softly kissed him and whispered:

"Poor—poor Mr. Bowser!"

THE VALUE OF SANITATION.

Financial Loss to Communities From Sickness and Death.

This is a hard, practical age that demands money value for every progressive step, and efforts to improve sanitary conditions are too often retarded by this mercenary claim. As arguments sanitarians present some remarkable statistics, showing financial loss, individually and as a whole, to communities when an epidemic prevails. A number of very interesting tables and diagrams have been compiled by Mr. G. E. Willets, of Michigan, showing mortality from general and specific causes covering a period of 250 years. His search of the records of England has been very thorough resulting principally in estimates of London and English counties.

From his tables, simply arranged with heavy black columns, varying in length according to the percentage of mortality, it is shown that in London from 1660 to 1679 the rate of mortality from fevers alone was \$75 per 100,000 persons. In 1888 it was but 17, more than fifty times less. The reduction shows greatest between 1801 and 1810, then a considerable decrease follows from 1831 to 1840, after which it remains about stationary through 1841 to 1871, showing slight change to 1888. Similar progress is indicated for consumption, but greater for smallpox. The latter disease killed 502 persons in every 100,000, just previous to Jenner's discovery, in 1780. In 1888 there were only nine deaths from smallpox to 100,000.

A REMARKABLE DECREASE is indicated also for all general causes. In 1679 the rate stands at 80 deaths for every 1,000 inhabitants, and diminishes to 18.4 in 1888 in London.

The greatest progress has been made, of course, since sanitation became a science, and increasing advancement is shown when people have learned that the adoption of its measures saves money. In most States the maximum value of a man's life is put at \$5,000, and the minimum, \$1,000 for damages. William Farr, in his cold calculations of mortality and loss, estimated the life of an English farm labourer at \$1,200, and a woman's about \$500 less.

These figures are too low for American labour, and decidedly low for a large portion of the middle class. For illustration, however, the conservative figure \$1,000 is generally used. This amount multiplied by the death rate of a given place gives the approximate loss to that community. This does not include loss from sickness, which some statisticians estimate on a basis of ten or twelve cases to every death.

In small towns, where sanitary measures have not been generally adopted, and a proper sewerage system is unknown, barring epidemics, the number of deaths yearly has generally averaged four to seven per 10,000 population. Taking the money value of each life at \$1,000, the amount of loss to the town is obvious.

Pettenkofer calculated after years of accounting that every German soldier lost five per cent. of his time by sickness. If this is true of well-fed, equipped, and watered soldiers, we must estimate

A LARGER RATE in cities on this continent, where conditions are in many places detrimental to health, and the stress of life weakens physical stamina. It is proved beyond question by carefully kept records that proper sanitation relieves the discomfort of the poorer classes, reduces pauperism, prevents famine, and increases capacity for labour production. It is estimated that in London alone 240,000 lives are saved annually by modern sanitation. Proceeding with the calculation that there are ten cases of sickness to every death, and that the individual cost is not less than \$1 a day for subsistence and medicine, for a maximum period of ten days, and the amount saved figures at \$2,400,000. Going further, and estimating the annual earnings of the lives saved at \$300 each, and \$72,000,000 accrues, which, after cost of keeping the individual is subtracted, leaves a large saving. Hard and practical as these statistics appear, they prove beyond question that sanitary science, yet in its infancy, is a pecuniary benefit to a community, and undoubtedly will achieve even more remarkable results in the future.

The Holy Man of Benares.

One of the curiosities of mankind, he is visited by almost every traveler in India who goes to Benares. His name is Swami Bhaskar-ananda Saraswati, and he is about 65 years old. He lives near the Monkey Temple, in a garden belonging to a Raja, wears no clothing, sleeps on the ground, and accepts no gratuities, because he wants nothing. "By much study and long contemplation of religion," it has been said, "he claims to be free from all passions—free even from the very wants of life." He has a face full of sympathy and kindness. He discusses and explains his ideas of religion whenever a visitor desires to hear him, and he treats every one of the multitudes who call upon him with constant and most cordial kindness. Part of his writings has been published in a bulky volume.

Smoking Prevents Diphtheria.

Prof. Hajak of Vienna has declared that smokers are less liable to diphtheria and other throat diseases than non-smokers and the ratio is 1 to 28. The learned Dr. Schiff also gives us to understand that smoking is always positively forbidden in bacteriological laboratories, because it is known to hinder the development of the bacteria.

New Ships on the Tyne.

Not less than ten new vessels were launched by firms on the banks of the Tyne during the month of August, and this is the largest number of ships launched there in one month during the present year.

A CHAMBER OF HORRORS.

AN OLD TIME FLOATING PRISON TO BE EXHIBITED IN LONDON.

An Old Hulk Fitted Up to Represent Convict Life in the Past—Gross and Picturesque of Former Punishments.

Londoners, it appears, are now expected to flock to a new attraction, a floating chamber of horrors, which promises to outrival the chamber of horrors at Mme. Tussaud's famous wax works exhibition. This floating exhibition of terrible happenings of the past is an old convict hulk, the Success, which recently arrived at London from Australia, after a voyage of five months' duration, and which is moored at Blackwall while being prepared to receive the public. The Success has been used for exhibition purposes in Australian waters for years past, but just as she was upon the point of being demolished she was purchased from the Government by speculators and taken to London. The hulk is more than a hundred years old, and is the only one remaining of five terrible floating prisons established by the Government of the colony of Victoria from 1850 to 1855, as a result of the discovery of the gold fields of Bendigo and Ballarat, and the subsequent rush of the colony of, among others, many thousands of desperate, lawless men of nearly all nationalities. Naturally crimes for a long time were most frequent, and bushrangers and others thrived upon the robberies committed along the roads followed by the lucky diggers who tried to make their way home with their newly-acquired wealth. In fact these lawbreakers eventually became so bold that they attacked the Government escorts guarding the consignments of gold sent from Ballarat or Bendigo to Melbourne and other towns. When bushrangers were captured they were treated with

THE UTMOST SEVERITY,

and upon conviction were sentenced to long terms of imprisonment in the prison hulks, which were stationed in Hobson's bay, Melbourne. On board these vessels a most terrible system of discipline prevailed, in fact, its administrator, the then inspector general of naval establishments, a son of a Cornish baronet, Sir John Price, was beaten to death by a gang of desperate convicts, who rushed upon him, determined to kill the inventor of the much-hated system of control, some idea of which may be gathered from the following facts:—Each convict had his history recorded on the door of his cell in the hulks, and many of the most notorious records will be on exhibition. Attempts to jump overboard were frequent, although the convicts being heavily ironed, those who had the temerity to jump sank like lumps of lead, to rise no more. Many of the prisoners, whom no amount of punishment could subdue, were continually cursing and yelling in the most horrible manner. Whichever way the visitor turned there was something repulsive to the eye or ear. There was want of space for bodily exercise, a total absence of any kind of useful occupation, and almost total isolation from all the usual habits of mankind. The narrow walls of the cells were the limits for exercising the body, except that the prisoners were allowed on the decks, from which only a distant view of the shore could be obtained, for one hour daily. At night the dashing of the waves against the sides of the hulks added to the din caused by the

SHOUTING AND SWEARING

of the most unruly convicts, who never seemed to desire to sleep or be willing to permit others to rest.

On board the Success, when ready for inspection, waxen figures of the convicts of the past will be shown, in their usual attitudes and coarse garb, in the cells they at one time occupied. Notable among them will be the figure of the notorious "Captain" Melville, who for several years haunted the country between Ballarat and Melbourne, to the terror of gold-laden diggers attempting to make their way from the gold fields to the latter city. He was credited with many murders and countless robberies, and when finally arrested he admitted that the proceeds of his crimes must have footed up to quite £250,000, which he claimed he had hidden in a place known to himself alone. As a result, for forty years since people have been trying in vain to find out where Melville hid his ill-gotten gold. As he was in the habit of riding to the top of Mounts Boran and Anskie, from which point of vantage, and by the aid of a powerful field-glass, he was able to spy the returning diggers, it is believed that the treasure must be hidden in the neighbourhood of one of those places, but all attempts to find it have proved fruitless. When after trial and conviction, Melville was confined on board the Success, he watched his opportunity, and at the head of a number of other desperadoes, suddenly rushed upon a boat,

KILLED THE KEEPER

in charge of it, and succeeded in pulling away from the hulk in safety, although fired upon by all the hulks and warships in the bay. He was soon recaptured, however, and at his trial defended himself brilliantly, delivering a speech of great power and impressiveness, during which he dilated in burning words upon the horrors of the penal system on board and Success, and causing such a sensation by its publication in the newspapers of Melbourne that a monster meeting of citizens was called and resolutions were passed in favour of abolishing the convict hulks. Indeed, the popular feeling aroused against them was so strong and general that the Government was compelled to commute the death sentence imposed upon Melville to imprisonment for life. He was transferred to the gaol at Melbourne, where, according to the official report, he committed suicide. The unofficial version of the affair is that he was strangled to death by a keeper during a struggle which the desperate man made for liberty.

Every side of convict life in the old days on board the hulks will be depicted on board the Success, especially the different modes of punishment, and the speculators who have purchased her expect to reap a small fortune as the result of their stroke of enterprise.