Humorous Department.

The Bird In the Hand.—John La Farge, the famous mural painter, received last month in New York from the Architectural League a gold medal. In his speech of asknowledgment Mr. La Farge said dryly that he was thankful to get in his old age a medal for mural painting from a society of men who, his whole life long, had refused to give him any mural painting to do.

"I dined with Mr. La Farge the other day," said a mural painter to a Washington Star man, "and he talked again about his medal. He said he would have been better pleased with work in the obscure days when he needed it.

"Then he smiled grimly, and said he was a little like a famous actress. A manager offered this actress $1,000 a week to make a tour of the world. She insisted on $1,500. But the manager said $1,000 was all he could give and he reminded her of the fabulous jewels that South American millionaires, Russian Grand Dukes and Indian Rajahs are wont to lavish on the ladies of the stage when they are touring.

"'Go home,' said the manager; 'think the matter over, and let me know your decision in the morning.'

"In the morning the actress sent the manager this wire:

"'Give me my terms and you can have the jewels.'"

In a Bad Way.—Dr. A. M. Dougal, surgeon of the Carthaginian was describing the splendid cures of seasickness that he obtains by means of hypnotisms, says the New York Tribune.

"The most violent cases yield to my treatment," said Dr. Dougal. "Yes, some very violent cases, indeed, have vanished under my hand.

"I remember a particularly bad case."

Dr. Dougal stroke his mouth to hide a smile.

"It was a Philadelphia squab dealer. He sent for me the second day out. As I hurried to his cabin I could hear him groaning a corridor away.

"'Do you feel very bad?' I asked the man, sympathetically.

"'Oh, dear, yes!' he groaned. 'Oh, my! I feel very, very bad, indeed.

"I looked at him. Serpentine undulations passed over his frame. He was racked and shaken as by an earthquake.

"'Can't you keep anything on your stomach?' I inquired.

"'Only my hands,' he sighed. 'Only my hands.'"

Her Comment.—An old Irishman named Casey made a lot of money as a contractor and built a fine house for his children, says Tit-Bits.

The sons and daughters were much ashamed of the plebian father, and Casey was always kept in the rear of the house when they had a party or a reception. One day Casey died, and there was a great to-do about it. The children had a fine coffin with plenty of flowers, and Casey was laid in state in the parlor.

That evening an old Irishwoman who had known Casey when he was a laborer, came and asked to see the face of her dead friend. They conducted her to the parlor.

She walked up to the coffin, took a long look, and said:

"Faith, Casey, an' they've let ye into th' parlor at lasht."

A Subtle Hint.—A representative in congress, who is the father of several bright girls, tells a story whereof one daughter is the main figure.

"For a long time," says the representative, "I had the bad habit of hanging about the lower floor when the girls had men callers. One evening I had settled in any easy chair in the reception room just off the drawing room when one of my girls, who was talking to a bright chap from our own state, called out:

"'Dad!'

"'What is it, daughter?'

"'It's 9 o'clock, dad, the hour when Tom and I usually go into committee.'"—Harper's Weekly.

☞ An Englewood school teacher showed Gerald Sullivan of the Englewood, (Ill.) Times a few letters from parents of pupils. The first was an excuse, and read: "Missus Teacher, Pleas excuse my Johnnie from absence, he had the measles to oblige his father, Carl Smith." Another one, who objected to the "alcoholic instructions," read: "Miss Blank, My boy tells me that when I trink beer, der overcoat from my stomach, gets too thick, pleas be so kint as not to interfere in mine family affairs. John Dash." Another one was: "Please excuse Willie for not being at school yesterday. I took him out for a little pleasure to see his grandmother's grave."

Left Till Called For.—When Wilkinson went to his office one day last week he felt calm and contented. He hadn't any need to worry about his wife's loneliness any more, for he had bought a capital watchdog for her.

But, alas, when he arrived home his wife met him with the deplorable news that the dog had gone.

"Eh!" said Wilkinson. "Did he break the chain, then?"

"No," she replied, "but a great, ugly looking tramp came here and acted so impudently that I let the dog loose. But instead of tearing the tramp to pieces the nasty dog went off with him."

"Great Scott!" said Wilkinson. "That must have been the tramp I bought him from!"—London Express.

Would Bar the Judiciary.—Young ministers sometimes say some very irreverent things when first they get in harness, but seldom are so broadly condemnatory as the young clergyman who was called upon to act as chaplain at the opening of a recent term of court down in Maine.

After covering everything he could think of as appropriate to say from religion to law, he closed his prayer with the supplication, "and, finally, may we all be gathered in that happy land where there are no courts, no lawyers and no judges."

Then they changed chaplains.—Philadelphia Record.

☞ An editor relates the following: "When first he came to see her, he showed a timid heart; and even when the light was low they sat this far apart, but as their love grew warmer, they learned its joys and bliss and sat upcloselikethis."

☞ The following local is credited to an Irish advertiser in a weekly paper: "Don't fail to read the ad. of Pat O'Brien in another column. If you have mislaid this paper you can find the ad. in last week's issue."

Home Course In Modern Agriculture.

By C. V. GREGORY,

XIII.—How Animals Grow.

Agricultural Division, Iowa State College.

Animals, unlike plants, can obtain none of their food from the soil, air or water, but must have it prepared for them. Without plants there could be no animal life, since animals are dependent upon them, either directly or indirectly, for food. A study of the way animals make use of this food in building up their bodies will help us to better understand the principles of feeding.

There are three main constituents of feeds—fats, carbohydrates and albuminoids, or protein. The fats are made up of carbon, hydrogen and oxygen. The carbohydrates, of which starch and sugar are familiar examples, are made up of the same elements put together in different proportions. Another of the carbohydrates is cellulose, or the woody fiber of plants. This is hard to digest, but some of it is used in animal growth. Albuminoids contain not only carbon, hydrogen and oxygen, but nitrogen also. In addition to these three constituents of food it also contains some mineral elements, which are commonly referred to as ash.

This ash is used in building up the bones, hair, horns and hoofs. The albuminoids also form a considerable

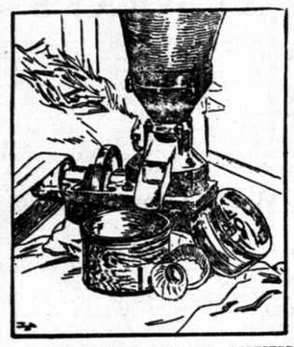

FIG. XXV—GROUND FEED IS DIGESTED MORE QUICKLY AND COMPLETELY THAN WHOLE GRAIN.

portion of these parts of the body. Their chief use, however, is in building up the muscles, tissues and various organs. The fats and carbohydrates are used to furnish energy and heat. They are the fuel of the body. by uniting with oxygen they give off the heat and energy required to keep the body running, in much the same way that the elements of coal or wood unite with oxygen to furnish heat and power when buried in a steam engine. Not all of the fats and carbohydrates are burned immediately, however. Some of the fats go to build up fatty tissues. Some of the carbohydrates are changed to fats and used in the same way, and some are stored in the liver in the form of glycogen to be used when needed.

Before these various food elements can be used by the animal they must go through a process called digestion. The first step in digestion consists in taking the food into the mouth. Each class of animals has a different way of doing this. Watch the cows feeding in the pasture. They reach out their long tongues and gather in a mouthful of grass, breaking it off with a peculiar twist as it comes against their lower teeth. They cannot bite it off, since they have no upper teeth in front. The horse gathers in the grass with his lips and bites it off between his teeth. For this reason horses can eat grass down much closer to the ground than cattle can.

After the food is taken into the mouth it is chewed and mixed with saliva. This saliva serves two purposes—to moisten the food and to change some of the starch to sugar. This change is brought about by the action of enzymes which the saliva contains. These work in the same way as do the enzymes in a germinating seed, which prepare the food for the little plant.

Sugar and starch, as we have learned, are both composed of carbon, hydrogen and oxygen, the only difference being that they are put together in a little different way. The action of the enzymes changes the relation of these elements in the starch, arranging them in such a manner as to form sugar.

All the starch in the food must be changed to some form of sugar before it can be used by the animal in building up the various parts of its body. Since the food remains in the mouth only a comparatively short time, however, only a small part of the starch can be acted upon there. The rest is changed later, as we shall see.

The main purpose of the saliva is to moisten the food. This moistening, together with the chewing, reduces it to a moist, finely divided mass, ready to be swallowed and acted upon by the other digestive juices.

While the essential processes of digestion are the same for all animals, the way in which the work is carried on varies somewhat. The horse and the hog have but one stomach. As the food enters this a churning motion begins, which gradually forces the partially digested mass along toward the lower end. The saliva continues to act on the starch, and another fluid, the gastric juice, is poured out from the walls of the stomach. The main duty of this gastric juice is to change the albuminoids into a form in which they can be absorbed and used by the animal.

Cattle and sheep have a very large stomach, which is divided into four parts. Animals of this kind are called ruminants. When the food is swallowed it passes into the first stomach, which serves the purpose of a storehouse. Here the action of the saliva continues, and the water which the animal drinks softens the food to a considerable extent. After a time the food passes into the second stomach, which forces it back to the mouth, a little at a time. Here it is chewed thoroughly. You have often seen cows lying in the shade "chewing their cud." This cud is the food that has been sent up to the mouth by the second stomach.

After being chewed the food is swallowed again. This time it passes directly through the first stomach to the third. Here it becomes still further softened finally passing into the fourth or true stomach. The function of the first three compartments is simply to prepare the food to be acted upon by the true stomach.

After leaving the stomach the partially digested food passes into the small intestines. Here it is acted upon by three fluids—the bile, pancreatic juice and intestinal juice. The chief use of the bile is to digest the fats, making them into a sort of a soapy fluid, in which form they are ready to be absorbed into the blood.

Both the pancreatic and intestinal juices act upon the remaining starch, completing the change into sugar. The pancreatic juice also completes the digestion of the albuminoids, in which work the intestinal juice may also take a small part. Another work of the pancreatic juice is to assist in decomposing the fats. The intestinal juice breaks cane sugar up into simpler sugar, such as glucose

After the food has been digested the usable portions are ready to be absorbed into the blood. Digestion has changed the fats, proteins and starches into a form in which they are soluble. In this fluid state they pass through the walls of the stomach and intestines and are emptied into the blood.

The blood is taken to all parts of the body by the arteries, which subdivide to form tiny capillaries. These are so small and close together that a pin prick on the skin anywhere will pierce some of them. There are two main parts to the blood—the fluid of plasma and the red corpuscles—which give it its color.

Each part of the body selects from the blood the food materials which it needs. Thus the bones will take ash, while the muscles will take protein, to build up their wornout parts. The waste, broken down parts are burned, together with as much fats and sugars as are needed, to furnish heat and energy. All through the body there are thousands of little fires. To keep these fires going oxygen is used, and carbon dioxide is given off in the same way that a fire in a stove takes in oxygen through the lower draft and sends carbon dioxide up the chimney.

In the body the corpuscles supply the oxygen and carry away the carbon dioxide. The other waste materials, or ashes, are gathered up by a system of vessels called lymphatics, which empty into the veins. These veins carry the blood back to the heart.

The change of the contents of the

FIG. XXVI—SUPPER TIME.

corpuscles from oxygen to carbon dioxide changes the color of the blood from a bright red to a much darker shade.

From the right side of the heart, to which the blood is brought by the veins, it is sent to the lungs, where the corpuscles exchange their carbon dioxide for oxygen and are ready for another trip through the body.

Since oxygen plays such an important part in keeping up the fires that supply the body with heat and energy, it is just as important that the animals be well supplied with fresh air as it is that they have enough food. In the winter especially the stables are often closed so tightly in the attempt to keep them warm that the air becomes very deficient in oxygen. In consequence the work of the body is delayed and the general health suffers. By having ventilators in the roof, together with plenty of windows at such a height that the draft will not blow directly upon the animals, fresh air can be admitted and impure air drawn off constantly.

To be Continued

A RACE ON ICE.

The Skates That Got Away and Those That Were Recovered.

Thackeray once asked one of the men who let out skates on the Serpentine whether he had ever lost a pair through the omission to exact a deposit, and he replied that he had never done so, except on one occasion when the circumstances made it almost pardonable.

A well dressed young fellow was having his second skate fastened on when he suddenly broke away from the man's hands and dashed to the ice. The next instant a thickset, powerful man was clamoring for another pair.

He was a detective in pursuit of his prey, and a very animating sight it was to watch the chase. He was, as he had boasted, a first rate skater, and it became presently obvious that he was running down his man.

Then the young fellow determined to run a desperate risk of liberty. The ice, as usual, under the bridge was marked "Dangerous," and he made for it at headlong speed. The ice bent beneath his weight, but he got safely through.

The sheriff's officer followed with equal pluck, but, being a heavier man, broke through and was drowned.

"His skates," said the narrator of the incident, "I got back after the inquest, but those the young gentleman had on I never saw again."—London Telegraph.

☞ "I never hear any talk about dividing up Texas except when I come up north," said Mr. James B. Wardle of Galveston, Texas, to a New York Telegram reporter. "The people of Texas would never consent to the division of their state, no matter how many Democrats the split might make. They think more of the honor of being the largest state in the Union than they do of any political party in the market. The sole aim of every real Texan is to make his state first in everything. She is now first in cotton, sheep and cattle. As soon as the Panama canal is completed Texas will have the first and the finest city in the south. We fully believe Galveston will soon contain a million people.

SOME QUEER PRAYERS.

Curious Mistakes That Have Been Made By Preachers.

The most frequent cause of inappropriate petitions is no doubt the persistence of habit. Certain phrases are used again and again until they come to be repeated without any thought of their immediate application, says the Christian World. We may similarly explain the stories of the workhouse chaplain who prayer that those present might not trust in uncertain riches and the prison chaplain who besought the Lord that he conduct the worshipers in safety to their respective places of abode.

The sense of humor must surely have been lacking in the old man of eighty, supported by crutches, who regularly included among his petitions at the weekly prayer meeting the request that he might be kept from running with the giddy multitude to do evil. Familiarity with conventional phraseology was the undoing of the minister who, after the sermon on the Pharisee and the publican, asked that there might be poured out upon his hearers a double portion of the publican's spirit. Not very complimentary was the use of a well known Scripture passage made by a minister at a wedding:

"May these persons live together in such harmony in this life that they may finally attain unto that state of felicity where they neither marry nor are given in marriage." As a concluding example of the thoughtless use of familiar language one may quote this remarkable amalgam: "O Lord, we praise thee that we are thine; we feel that we are thine; we know that we are thine; Lord, make us thine."

As in a sermon, so in a prayer, the attempt to correct a hasty utterance sometimes leads to surprising results. A cautious Scotch elder, it is said, had taken supper at his pastor's house and in returning thanks after the meal entered upon a detailed exposition of various causes of gratitude. He concluded by invoking the divine blessing upon the pastor's wife as his godly helpmeet, who had always upheld his hands in every good work—"at least," he added in a saving clause, "as far as we know." It is related of a compatriot that in a moment of forgetfulness he once thanked God for "the salvation of all men," but immediately redeemed himself from heterodoxy by the qualification, "which, O Lord, as thou knowest, is true in one sense, but not in another."

There are some men who seem to think that an indirect manner of expression is especially suited to sacred things, as the Scotchman quoted by Dr. Boyd as saying, "For, as thou knowest, men do not gather grapes of thorns nor figs of the national emblem," and the Englishman who thus pledged himself, "And, O Lord, if thou wilt move the heart of any young man to enter thy service, we will show our approval in a way which thou wilt appreciate."

Father Taylor, the Boston sailor-preacher, was one of the most direct of men and on the one recorded occasion when he essayed a roundabout style nature triumphed over artifice. It was the Sunday before the state elections, and he was praying fervently that a man might be chosen for governor who would rule in the fear of God, who would never be afraid of the face of clay, who would defeat the ringleaders of corruption, who would defy his own party if it yielded to wire pullers, who—suddenly Father Taylor paused and then exclaimed: "O Lord, what's the use of boxing the compass in this way? Give us George N. Briggs for governor. Amen!"

The temptation to use public prayer as a vehicle for the conveying of information has sometimes been too strong to resist. In his lively reminiscences published some years ago in the Wesleyan Methodist Magazine the late Dr. Benjamin Gregory recalled how a certain Methodist minister of an earlier generation was accustomed "to convey all necessary directions to his younger colleagues through the medium of the throne of grace." Here is an example: "O Lord, bless thy dear young servant. Thou knowest his appointment for tomorrow is at ——, and he will have to stop at Brother ——'s, who keeps a little shop opposite the church. Oh, grant that thy dear young servant may not forget to let the people have the magazines and to bring home the moneys."

The famous Dr. McCosh of Princeton was accustomed to meet the students in the college chapel every morning, when he would make any necessary announcements as well as conduct devotions. One morning in the prayer with which the service concluded he prayed for the president of the United States, the cabinet, the members of both houses of congress, the governor of New Jersey, the mayor and other officials of Princeton, and he then came to the professors and instructors in the college. At this point there flashed into his mind a notice which had been communicated to him orally and which he had omitted to include in the announcement made just before. To the surprise of the assembled students President McCosh continued, "And, O Lord, bless Professor Karge, whose French class will be held this morning at 9 o'clock instead of 9.30, as usual."

ARCTIC WHALING.

An Industry Now Fully Protected By Law and Patrols.

Where anarchy once reigned in the arctic regions, patrol vessels now preserve the peace, according to Alexander McCallum of San Francisco, who is interested in the whaling industry.

"The revenue cutter service dispenses law in the arctic now," said Mr. McCallum to a Washington Post reporter, "and the agents say it is capricious and arbitrary authority, which adds the last risk and establishes a prohibition upon the whaling industry there.

"From the nature of the arctic whaling business it often happens that the crews comprise desperate and dangerous men. There is bound to be continued trouble, and if the revenue officers can take the captains out of their ships upon complaints of such men, and thereby break voyages, the chance is one no investor will take.

"The agents do not expect the masters of their vessels shall escape the consequences of misbehavior, but if they are accused they say there can be no harm in waiting for the return of the vessels before making an arrest.

"The whaling agents say the shore traders conspire against them, and have used the missionaries, who are themselves traders in many cases, to make representations to President Roosevelt as a result of which the revenue service has been unduly exacting. Many of the whalers have engaged in trading, and have incensed the shore traders by getting, in some cases, monopoly of the business.

"The methods of the whalers have not been different from those of the shore traders, but a ship can be held to an accounting where a detached trader cannot. In some ships trading is forbidden, the owner taking the ground that the time wasted with the natives can be more profitably employed in whaling, but some of the men of the ship man carry on a private enterprise, and the owners suffer vicarious punishment in greater degree than the actual offenders.

"At best the whaling ventures in the arctic are not as profitable as is generally assumed. It costs about $20,000 to fit out a vessel for a voyage. Assuming the ship escapes the countless perils and takes three whales, which is a fair average catch, or better, this means a revenue of $30,000. It requires $10,000 to settle the voyage, and if the vessel is to be sent to sea again, the $20,000 is required for refitting.

"The whales have been retreating to the north and east, and it is only under the most favorable circumstances a vessel can chase them to their last stand and get out before the ice pack closes in.

AMERICAN LAWLESSNESS.

Some Remarks Calculated to Make People Pay Attention.

"President Eliot's talk on 'Our Lawlessness' is calculated to make a great many people sit up and take notice," remarked Mr. Henry G. McKnight of Buffalo, N. Y., to a New York Telegram reporter, "but I believe President Eliot is wrong when he says that society 'at large must bear the responsibility.'

"The man who thinks 'society at large' in this country is going to assume any responsibility or bear any is very much mistaken. When the majority of the people in this country begin to suffer from the cutting of wages and the curtailment of their pleasures we will simply have a political revolution, and you can depend on it society at large won't get the worst of it.

"No, it is useless for men to speak from President Eliot's elevation about remedying lawless conditions through the medium of society at large.

"The men who should save us from serious setbacks in our social and commercial life are the men who stand on President Eliot's platform. Business men will break all the laws they can without running any risks. Two-thirds of the people in this country care very little about the kind of lawlessness of which President Eliot warns us, so long as they are in a prosperous condition. They only take an interest in politics when times are hard.

"This attitude, which we apparently cannot change, is the thing the men like President Eliot and the men who have great properties and interests at stake should bear in mind. It is their duty to see that honest men are put in office and not to let our political life become so rotten that 'society at large' has to rise up and cause trouble for every one concerned. Our educated men must protect the country, and not rely on 'society at large' to do it."

☞ When a woman's age begins to tell on her she can't very well shut it up.