POULTRY.

GAPES AND THEIR TREATMENT.

The current notion that incubator chicks are immune from gapes is entirely wrong, writes Bessie L. Putnam, in Farm Poultry. True, many incubator chicks escape them, but it is because they were protected during the first few weeks after life commenced in earnest—not because they happened to be hatched artificially.

The disease is due to a small threadworm in the windpipe. The life-history of this worm is still under discussion; but certain it is that, whether they are parasitic in earthworms or birds, breed in the ground, or are coughed up and passed thus from one chick to another, ground once infested with the worms remains so some years.

The woman whose chicks "never have the gapes" has them on ground free from the pest. The one who is troubled every year will save in the end to transfer her poultry nursery to other ground. This is why so frequently the incubator chicks are free from them, while chicks on the same place, raised by a hen, sicken and die. Just notice, next time, and see if the brooder is not given a nice grassy plot, while the old hen is cooped in the same chipyard occupied by former generations.

If it is impossible to furnish new ground, cleanse the old by sprinkling with lime. Watch the chicks closely, and as soon as there is a premonitory sneeze, put a little kerosene in the food. Only use enough that the odor is barely perceptible; if too much is used, they will not eat the food. If this does not avail, try giving those affected a few drops of kerosene in which a little camphor gum has been dissolved. This is most easily given with a five-cent medicine dropper, though a feather may serve instead. Turpentine, applied in the same way, is also helpful. Persist with this treatment daily, or oftener if necessary, and some very bad cases may be cured.

Wet weather is favorable to the development of this trouble, and chicks need extra attention during inclement weather.

WATER-GLASS METHOD OF EGG PRESERVATION IN DENMARK.

Egg preservation is carried on on an enormous scale in Denmark, and, according to a recent report, many of the eggs shipped abroad have already been preserved for four or five months. The material used for this purpose is chiefly water-glass (a solution of silicate of soda), although lime water is also largely employed, since it is cheaper, and gives almost equally good results. With lime-water, however, the shell of the egg is hardened and roughened, which is not the case with water-glass. The eggs are laid down in enormous tanks, which will hold from 70,000 to 80,000, and the tanks are then filled nearly to the top with the preserving fluid. These tanks are built in cool, underground cellars. For successful results, it is essential that the eggs should be fresh before laid down. On removal from the solution, the eggs are well washed in running water, and dried in the air before being placed on the market.—[Agricultural News, B. W. I.

FRESH GROUND.

Fresh ground is one of the prime essentials to success in chicken-raising. The old runs, picked clean of all sharp grit, with the insects snatched up as quickly as they grow, with the soil polluted by the voidings of successive generations of fowls, and contaminated with the seeds of such trouble as gapes, blackhead and other ailments, to say nothing of unwholesome but little-understood bacterial and chemical principles inimical to poultry welfare—such runs must be avoided if continued success is expected in rearing large broods of vigorous, profitable stock. The colony-house and hopper system of feeding offer the best solution of the fresh-ground problem yet devised. Get the chicks out in the cornfield, the orchard, the meadow sward, the grain stubble, wherever there is wastage that may be converted into poultry and eggs. It will result not only in more, but in better poultry products. The lesson of experience is plain.

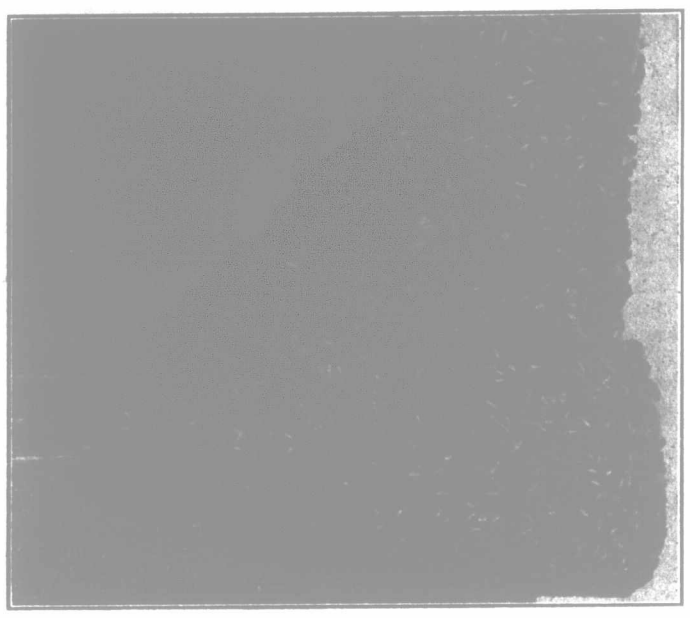
The twenty-third annual convention of the American Poultry Association will be held at Niagara Falls, N. Y., August 11th 12th and 13th, 1908. Secretary Ross C. H. Hallock sends us a list of thirty-two applicants for general judges' licenses, to be acted upon at this foregathering, among them being two Canadians, viz., J. H. Minshall, Brantford, Ont., and H. W. Partlo, Ingersoll, Ont., Mr. Partlo confining his judicial aspirations to Light Brahmas. Notice is given of quite a considerable number of amendments to the constitution proposed by various members. Some uncomfortable scrimmaging in the region of the secretaryship is also anticipated. Altogether, the forthcoming meeting promises no lack of points for discussion.

APIARY.

AFTER-SWARMS.

In box-hive and straw-skep days, after-swarms—that is, swarms issuing after prime swarms, and accompanied by virgin queens—were considered an unavoidable evil. They generally are undesirable yet, but not unpreventable.

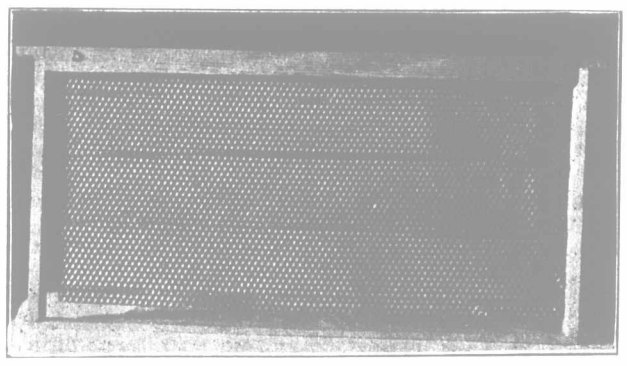
There are several ways of preventing after-swarms now in vogue. As after-swarms are due to a surplus of queens, they can, of course, be prevented by removing this cause. Prime (first) swarms issue as soon as one or more queen cells have been sealed. About eight days later the first virgin queen emerges. Then she will lead out an after-swarm. The apiarist can, before any young queens emerge, open the hive and remove, by tearing off all queen cells but one. When the queen emerges, the bees will not permit her to lead out a swarm, for those left in the hive would be in a hopelessly queenless condition.



A Fair-sized After-swarm.

When examining the frames for the queen cells, some may be missed, if there are many worker bees. Now, of course, this would permit the issuance of after-swarms. To make quite sure of not missing any cells, the bees should be removed from every frame. Don't do this by shaking off the bees, as that will injure the embryo queen in the cell left. Brush them off.

The best way to do this work is to make a light box, into which all of the frames are to be put before brushing off the bees. Then take the frames, one by one, brush the bees in front of the hive. After all surplus cells have been removed, put the frames back into the hive-body. Someone may not understand why it isn't just as well to remove the frames and brush off the bees direct from the hive, and return them at once, placing them at one side. If this were done, many of the bees would be brushed again and again, until all of the frames were examined. That makes bees angry, and they will give the operator "pointers" on brushing!



After-swarms Should be Hived on to Frames Filled with Full Sheets of Foundation.

There is another method of after-swarms prevention that does not entail the opening of hives. By moving hives about, the excess of bees are drained out of the parent hives. Then, the remaining bees, considering themselves too few in number, will not swarm, though there may be more than one virgin queen or queen cells.

To go into details: When the first swarm issues, it is, after having been hived, to be put onto the old stand. The parent hive is put at one side of the new hive, with its entrance at right-angles to the new hive. In about two days turn the parent hive so it will face the same as the new hive. On the sixth or seventh day from the issuance of the prime (first) swarm, carry the parent hive to an entirely new stand. No after-swarms will issue from it then, for reasons already given.

There are times when the apiarist desires increase. The first after-swarm from each hive can well be utilized for this purpose. They will cluster as an ordinary swarm, and can be hived in the same way.

As after-swarms are weaker numerically than prime swarms, it is desirable to hive them onto frames filled with full sheets of foundation. They will build up sooner.

Wisconsin. F. A. STROHSCHEIN.

THE FARM BULLETIN.

PROF. McKAY LEAVES IOWA.

Prof. G. L. McKay, the noted Canadian-American dairy authority, has resigned his position as Professor of Dairying at Iowa State College to become Secretary of the National Dairy Manufacturers' Association, at a salary of $6,000 a year. Prof. McKay was born on an Ontario farm, of Scotch parentage. Completing his schooling in the town of Ingersoll, he became interested in dairying, and spending two years on one of the largest dairy farms in the Province, familiarized himself with the problems of milk production. After that he spent two years with Dr. Robertson, and, from that time on has steadily forged to the front. In 1900 he went to Iowa, where his success in winning prizes, both in butter and cheese, not only in Iowa, but other States as well, attracted the attention of Secretary Wilson, then Director of Agriculture in Iowa State College. In 1902 he was invited to give instructions to the senior class in cheesemaking at the College, and, two years later, was placed in charge of the Dairy Department, in which position he has achieved extraordinary success. Outlining and pursuing investigations appeared to be his forte. His first work was on "Cream Ripening and the Use of Starters," but his work that attracted most attention was on the control and effect of Moisture in butter. His utterances on this subject thrust him at once into the forum of heated controversy, and while dairy opinion is not entirely unanimous as to the prudence of his teaching, it may be said that he has demonstrated that butter containing from 15 to 16 per cent. of moisture is as good as that containing 10 or 12 per cent., and, of course, more can be made from a ton of milk.

During the past year, under his direction, a new rapid test had been brought out for determining moisture in butter, the strong points of which are said to be simplicity and accuracy. It is composed of a double aluminum cup, using a paraffine bath for transmitting the heat. This does away with the danger of oxidization of fats. He has brought out a milk-and-cream sampler that is considered the best on the market. A book entitled "The Principles and Practice of Buttermaking," which is being used as a text-book in nearly all the leading schools of the United States, was compiled by Professors McKay and Larson. In 1901 Professor McKay was sent abroad by Secretary of Agriculture, Hon. James Wilson, to investigate dairying as it is carried on in European countries, and, upon his return, the dairy press of America profited much through the publication of his observations in Europe. Many of the dairy professors in the leading agricultural colleges have been his pupils, and to Canadians he is quite well known through his addresses at the dairymen's conventions, through personal connections and published utterances. It is to be hoped he may some day be induced to return to his native land.

LET US BE THANKFUL.

Oh, what is so grand as a day in June,
Sweet with the roses' rich perfume?
The earth laughs out in joyous pride,
The soft sky slumbers boundless wide
In waveless azure like a sea,—
Fit emblem of eternity.
The bright days fold their rosy palms,
The balmy nights seem silent psalms,
And Life moves on like a merry stream,
And seems ideal in ev'ry dream.

—Aronel Nilwen.

As I read and re-read the above verse I could not help thinking how correct was the sentiment contained therein, for truly June is a month of development in natures' realm. Some writer has said that "June is a month of brides, roses and brides," but 'tis a month, too, when the tiller of the soil watches with interest the outcome of his labor during the previous month. April and May are months of seeding, June that of growth and development, while July and the two following months are harvest ones. As the farmer sows in spring so shall he reap later. If he sows on a well-tilled, fertile soil he will reap abundantly. This is the month, too, when the farmer can take a spare day to visit his neighbors or take in an occasional excursion, to one of our Agricultural Colleges, it may be. No matter where he goes a day of profit

a