plies: "Why, Bill Evans, my neighbor up there, has a rooster that's bigger'n him, and a full blood that I can get for 75 cents or $1, and he's better'n your'n." Educate! Educate! Education upon this poultry business is what is needed. How shall it be done?—*Fanciers' Gazette.*

One Egg too Many.—An old, well-to-do farmer recently furnished an instance of exactness of dealing which establishes his claim to ingenuity, if not generosity. He furnishes butter and eggs the year round to regular customers, who rate his commodities as A 1, which have never been known to fall short one grain in the quantity paid for. Neither does the close-dealing marketman consent to any variation to the advantage of the customer. With him business is business. Counting out the weekly supply of several dozen eggs to one of his long-time patrons, he found himself with one egg too many. He recounted the entire basketful carefully, but still the superfluous egg perplexed him. He held it up against the light, passed it restlessly from one hand to the other, reiterating solemnly and sadly, "There's one egg too many." The imperturbable housewife, who either did not or would not appreciate his dilemma, said coolly, "Well, what will you do with it?" He hesitated a moment as if pressed almost to liberality, then suddenly mastering the situation, cracked the egg and—sucked it.—*Poultry Monthly.*

Poultry Judges.—May their number increase, but we hope that the quality of the work may not be allowed to deteriorate. There is room and work for a number of competent judges. One of the greatest difficulties with which officers have had to contend was that of securing judges to suit their date. Each one of the Big Six is usually engaged from six months to a year in advance, and when offered work this time of year generally are compelled to reject it. By the Big Six we mean Williams, Felch, Bicknell, Pierce, Barker and Ward. (Please notice that we name them geographically and not necessarily in order of weight, as Dr. Hall likes to do.) Two of these gentlemen are editors, and can scarcely afford to go out scoring. The other four are breeders, and devote much attention to their own flocks outside the show season; but from August to February the entire six are kept busy with their engagements. We have heard four of these gentlemen say that they wished there were others to take their places on many occasions. Why is it that there are not more young men able and willing to assume the work? Is it because they are not willing to give the Standard and the varieties it represents careful study, or is it because associations rely on the reputation of the judge as a drawing card, and refuse to employ ones less noted?

Hens or Pullets for Breeders.—Dr. Burr, in the *Poultry Bulletin* for December, expresses the opinion that pullets' eggs should not be used for breeding purposes, for the reason that while their eggs will hatch as well as or better than those of mature hens, they are more likely to die before six weeks of age. We quote below from his article, and should be glad to hear of the experience of our readers on this subject. We know some of them are very careful experimenters in all that pertains to their poultry, and we should be glad to hear from them concerning the subject in question. Dr. Burr says: I decline to sell pullets' eggs for hatching, as I have proved by experiment that though they hatch probably better than two-year-old hens' eggs, the mortality among the chicks during the first six weeks is fully 80 per cent., and the beginner feels that he is not fitted for the business and gives it up in despair. This is only natural, for the pullet beginning to lay is not fully developed, and cannot lay an egg capable of developing a rugged chick, even if said egg is fertilized by a two or three-year-old cock. Let the would-be poultryman buy eggs from two-year-old hens, or, better still, buy a dozen or twenty two-year-old P. R. hens and a healthy young Brown Leghorn cockerel from some reliable breeder and raise his own eggs, and if he will give them proper attention and has a good incubator and brooder, he will be satisfied with his results. My mortality last year from mixed pullet' and hens' eggs was about 65 per cent., the hatches running from 80 to 95 per cent. of eggs developed to the 18th day, and this year I have 41 chicks hatched, two and three weeks old, and have lost but two, one dying of peritonitis during the first day from disease of the yelk bag, and the other of the same cause, six days old, with yelk bag but half absorbed.

The Wheeling Show.—We expected a big show, so were in no wise disappointed on our arrival Tuesday morning to find some six hundred birds on hand and rapidly taking position, while nearly that many more arrived before night. They came from five different states, and on the whole were a fine lot. Exhibitors who attended their first show last year, and were frequently thrown out by disqualifications, as a rule came up in good style this year and received but few scars. While there were no individual entries so large as some made last year, there were nearly twice as many birds, divided among three or four times as many exhibitors. This, it will be acknowledged, is much better for all. It shows that the love of fancy fowls is gaining ground and spreading in the right direction. More breeders of a few fine birds is what is needed.

B. N. Pierce was on hand the first day and began work at once. The writer left at noon Thursday, and the scoring was then only about two-thirds done. So large has this show grown that it would seem that there should be two judges to do the scoring, so that the cards can be placed by evening of the second day. This would give the public, and especially the fancier, an opportunity to make the show room a place of effective study.

As we have said, the birds numbered nearly 1,200, and while more varieties were shown than last year, still some of our very best breeds were represented on a very small scale. We should guess that there were twice as many Light Brahmas as last year, and this is a step in the right direction; but why don't some one take up the Dark Brahmas and push them to the front? The same might be said of the four leading varieties of Cochins. Few, if any of these breeds were there. No Dorkings were shown but one pen of fine white chicks. Aside from one fine pen there were no Black Javas worth looking at. Mottled Javas were represented by fine exhibits by two firms. The Javas are a grand farmers' and fanciers' fowl, and ought to be pushed. The American Dominique is a magnificent bird anywhere, and we know two farmers who have fine specimens both old and young, yet they stayed at home and let this class go almost empty. Even the Langshans—grand birds that they are—were out in small numbers. Some of our Langshan fanciers seemed afraid of defeat, and so two or three exhibitors had it all their own way. No Penciled Hamburgs were there, and but two or three pairs of Silver Spangled. These, with one good pen of Blacks, completed the Hamburg class. Of the French class Houdans went it alone—two pairs, one trio and one pen, all fine ones, completed this class. The Games were not so largely represented as last year, but fine specimens of Black-breasted Reds, Brown Reds and Red Piles were shown. We were disappointed that the Wheeling Game men did not take more interest and make a larger exhibit. Of the Bantams the three best varieties were nicely represented, namely, Black-breasted, Red Games, Golden and Silver Sebrights.

We have named the above classes for the purpose of showing what a fine opportunity there is for energetic fanciers to take up some of the beautiful and useful varieties that have been so neglected in this section and bring them to the front with both pleasure and profit. The same enthusiasm bestowed on some of these will bring as great rewards as the White Plymouth Rock, White Wyandotte and Minorca men are sure to obtain.

Now as to the breeds that were well represented. Wyandottes came first—205 of them—and with the exception of one or two pens they were a good lot. Plymouth Rocks came second, 130 strong, and by far the most evenly good birds that have ever been shown at Wheeling. Brown Leghorns were a strong third in the race—not so even in the scores, but some of the finest that have been shown there. As we are about ready to go to press, we shall be compelled to postpone further report until next week. By that time we hope to have the official scores.

SHORTS.

—Mix a little powdered charcoal with the soft feed, and it will assist digestion and prevent disease. It is a purifier.

—Roup is produced by a bad cold, neglected; "an ounce of prevention is worth a pound of cure." Don't neglect a cold.

—Where incubators are used the eggs should daily be properly aired and allowed to cool slightly. This is in imitation of the hen and is supposed to be correct.

—If lousy hens did not lay there would be but few eggs in the market. But it is very certain that hens that are entirely clean and free from this evil will lay a great deal more than those afflicted with vermin.

—It is said that there were 16,000,000 dozen of eggs, valued at $2,500,000, imported into this country in 1885. Would it not be better to increase the poultry business in this country and keep the money at home?

—There is no interest that better or more uniformly holds its own than the poultry business, and there is commonly none on the farm more slighted. That, neglected as it is, it should still pay, is good proof that it deserves more attention.

—Such disorders as fiat eggs, eggs within eggs, double-yelked eggs, and other unnatural occurrences, are due to the hens being over fat. The eggs from over fat hens do not always hatch, while the few chicks that come out are weak and feeble.

—Her Majesty the Queen of England, and His Royal Highness the Prince of Wales, are frequently found among the list of exhibitors in English shows. Why don't our own Grover enter some of his fancy stock? He would be a drawing feature the day he inspected the awards?

—One-half of our farmers who start in to take proper care of their poultry only keep it up a few months. They gradually become more and more careless each week until they drop back into the old ruts again. On this subject the letter of A. M. Wylie in our issue of December 23 will be found interesting. We are sorry it came too late for insertion in our Poultry Department.

—"W. K. Vanderbilt, of New York, has just paid $1,000 for thirty imported chickens of fancy breeds. We believe that it would be just as well to improve the stock of poultry we have in this country, until our poultry growers get to be Vanderbilts in wealth." We can't agree with the above theory. Every time a millionaire expends part of his wealth for new and valuable stock he works to the advantage of his poor neighbor fancier in bringing to his notice as well as within his future reach the best blood of foreign fanciers.

THE BEEKEEPER.

PURE HONEY.—The false accusations that go the rounds of the ignorant class of newspapers are so completely answered in the following concerning the adulteration of honey that we give it as it appears in *Gleanings in Bee Culture*: There is absolutely no such thing as manufactured or artificial comb honey, sensational newspapers to the contrary notwithstanding, and one when buying it can be almost as sure of getting a perfectly pure article as when buying fresh eggs or strawberries. In years past when liquid or extracted honey was worth as much again as it is now, it may have been adulterated by city firms that repacked it for the retail trade; but since its price has fallen to its present figures this abuse is the rare exception and not the rule. As long as four years ago Prof. J. Hasbrouck, in order to ascertain the truth regarding the alleged prevalence of this nefarious practice, procured a large collection of honey from all sources—from commission houses dealing exclusively in honey, from others with a miscellaneous stock, from grocers and marketmen, from the tons of noted bee men reporting suspiciously large averages per colony, and from small consignments of obscure producers. Besides these he received a great many packages for analysis from persons made suspicious of honey by such paragraphs. He examined all carefully with the polariscope and every package of extracted honey not repacked in the city was absolutely pure, with but a single exception, one sample of comb honey containing a small percentage of glucose syrup, which had been fed the bees to keep up brood rearing during a dearth of pasturage.

The facts in brief are these: To manufacture honey comb, fill it with honey and cap it over is simply an impossibility. Many strictly reliable individuals, as well as leading beekeepers' associations, have at different times offered large sums of money for every pound of such manufactured honey. I think I am safe in saying there is not a more strictly pure article of food used throughout the world than our comb honey, and indeed at present I might include our liquid honey, also, unless it is such as is sometimes tampered with after it passes out of the producers' hands. We have state and county organizations in nearly every state in the Union, and all beekeepers as well as dealers generally are closely watched, and our interests guarded in the closest manner.

THE BEE'S STING A USEFUL TOOL.—A new champion has arisen to defend the honey bee from the obloquy under which it has always rested. Wm. F. Clarke, of Canada, claims to have discovered, from repeated observations, that the most important function of the bee's sting is not stinging. In a recent article he says:

My observations and reflections have convinced me that the most important office of the bee sting is that which is performed in doing the artistic cell work, capping the comb, and infusing the formic acid by means of which honey receives its keeping qualities. The sting is really a skillfully contrived little trowel, with which the bee finishes off and caps the cells when they are filled brimful of honey. This explains why honey extracted before it is capped over does not keep well. The formic acid has not been injected into it. This is done in the very act of putting the last touches on the cell work. As the little pliant trowel is worked to and fro with such dexterity, the darts, of which there are two, pierce the plastic cell surface and leave the nectar beneath its tiny drops of the fluid which makes it keep well. This is the "art preservative" of honey. A most wonderful provision of nature, truly! Herein we see that the sting and the poison bag, with which so many of us would like to dispense, are essential to the storage of our coveted product, and that without them the beautiful comb honey of commerce would be a thing unknown.

If these things are so, how mistaken those people are who suppose that a bee is, like the Prince of Evil, always going about prowling in search of a victim. The fact is that the bee attends to its own business very diligently, and has no time to waste in unnecessary quarrels. A bee is like a farmer working with a fork in his hay field. He is fully occupied and very busy. If molested or meddled with, he will be apt to defend himself with the implement he is working with. This is what the bee does; a man, by means of his knowledge of the nature and habits of this wondrous little insect, is enabled, in most cases, to ward off or evade attack. It is proof of their natural quietness, industry, and peaceableness that so many thousands of them will go through a summer of ceaseless activity close to your dwelling house, and perhaps not a dozen stings inflicted during the whole season.

BEE NOTES.

—If a colony becomes queenless and you do not wish to unite it with another, give them a frame of brood from another colony containing brood in its first stage, and they will convert a portion of said brood into queens, which would have otherwise all hatched into worker bees.

—There are three classes of worker bees in a thrifty colony—the nurse bees, the wax workers, and the honey gatherers. The first duty the young bees perform is feeding the young brood. The second labor is procuring the wax and building comb. Third and last is gathering honey.

—There are parties exerting themselves to their utmost to push their sales of patent bee hives among the ignorant class of beekeepers outside of the bee journals, asking $8 or $10 for a hive and right. All such parties are not in good standing with the bee fraternity, and should be let severely alone.

—Now as I have written considerable on the care of swarms, I would not have you think it is best to let bees swarm as they please. If we wish to increase we prefer to let each colony swarm once and no more, and after that make our divisions. After the first swarms issue cut out all queen cells but one, and you will not be troubled with second swarms.

—Every beekeeper should have a swarming box. This is a box about 6x6x 14 inches inside, one end closed and a number of holes bored in each side. A handle 10 or 12 feet long should be put through one side, at center of box. When the swarm is partially settled, push the box in the cluster of bees, and they will go right into it, and can be carried anywhere to a hive. This is much easier than cutting limbs, and saves the destruction of your valuable fruit trees.

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