

passing through holes in the ribs. The tubes and rib are flush with each other, and skins or plates are secured to the outer and inner faces of the tubes and ribs. The keel, keelson, and false keel, before being laid, are made hollow and plugged at certain intervals, and the stern post is similarly constructed to insure greater buoyancy. The knees, beams, and curlings are hollow tubes plugged at points. The decks and transoms for the hatchways are built of tubes in the same manner as the sides of the vessel, and are provided with wooden coverings. The steel skins and tubes connecting with the keel, commencing with the garboard streak, are made much heavier proportionately than the upper sides of the vessel, this serving the main purpose of strengthening and adding to the weight of the vessel near its bottom, so that it will always float keel downward. The vessel may be formed with a water bottom, conforming in shape with the bottom of the hull, and provided with longitudinal and cross ribs (Fig. 6) upon its outer face, thereby forming rectangular water spaces. The cradle strengthens the bottom by forming a covering, and also adds to its weight.

Further particulars can be obtained by addressing the inventor, Mr. John L. Eshelman, care Mr. G. W. Cook, Superintendent D. & R. G. R. R., Leadville, Col.

The Buffalo Gnat.

For many years past, says Prof. C. V. Riley in a recent report, one of the greatest pests the stock raiser of the South and West has had to contend with has been the so-called "buffalo gnat." This insect is a small fly, closely related to the well known "black fly" of the Northwestern woods. At certain seasons it swarms in immense numbers, and by its poisonous bite, multiplied a thousand-fold, causes great destruction among sheep, hogs, poultry, cattle, horses, and mules.

JERSEY COW MOLLIE GARFIELD.

As the years go by, the value of pedigree of the dairy cow grows less and less, and in proportion the test at the churn gains in importance. Many once famous and high-priced families of Jerseys are becoming unknown, and the cows, and the families of the cows, that make from fourteen pounds of butter per week and upward, are those that command attention. We show this week, on this page, the Jersey cow Mollie Garfield, 12,172, the property of F. S. Peer, Mt. Morris, New York. While she traces back to John Le Bas 398 and Pilot Boy 3, she performs, at the milk pail and churn, in a way to entitle her to be placed amid the good butter producers.

In 1881, for the month of July, she made an aggregate of eighty-two pounds of butter, and again in 1882, during the month of August, she made eighty-one pounds, being an average of over two pounds ten ounces daily. She is somewhat over eight years old, of a dark fawn color, with a remarkable development of the milk veins, as will be seen by our very accurate cut, made from a photograph.

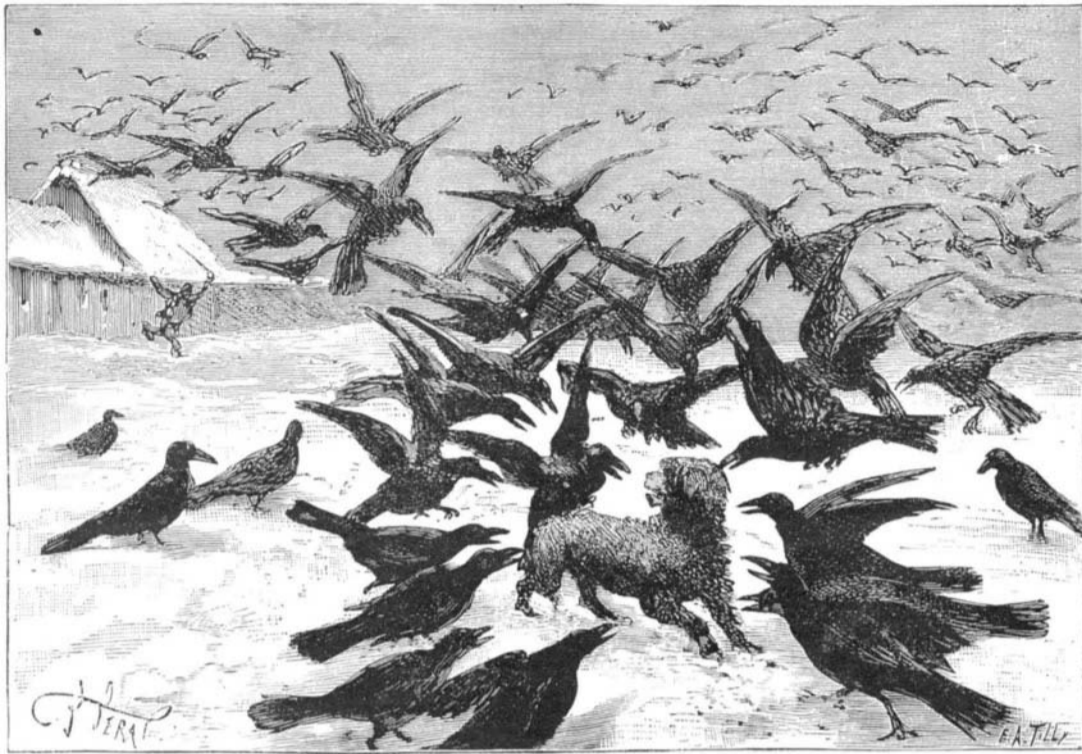
She has a daughter, Mollie Garfield 2d, 18,662, that made last summer sixteen pounds four ounces of butter per week, and another that made fifteen pounds seven ounces. While, as is well known, we have never catered to the Jersey boom, we believe that a judicious infusion of the Jersey blood into our dairy herds is advisable, now that bulls of this breed can be bought at reasonable prices.—*Rural New-Yorker*.

TELEGRAPH wires have to be renewed every five or seven years. The Western Union Telegraph Co. exchange about one thousand tons of old wire for new every year. The new wire costs from seven cents to eight cents per pound, and for the old about one-eighth of a cent a pound is allowed.

Gray Hair.

Many persons begin to show gray hairs while they are yet in their twenties, and some while in their teens. This does not by any means argue a premature decay of the constitution. It is a purely a local phenomenon, and may co-exist with unusual bodily vigor. The celebrated author and traveler George Borrow turned quite gray before he was thirty, but was an extraordinary swimmer and athlete at sixty-five.

Many feeble persons, and others who have suffered



A FIGHT FOR LIFE.

extremely both mentally and physically do not blanch a hair until past middle life; while others, without assignable cause, lose their capillary coloring matter rapidly when about forty years of age.

Race has a marked influence. The traveler Dr. Origny says that in the many years he spent in South America he never saw a bald Indian, and scarcely ever a gray haired one. The negroes turn more slowly than the whites. Yet we know a negress of pure blood, about thirty-five years old, who is quite gray.

In this country, sex appears to make little difference. Men and women grow gray about the same period of life.

In men the hair and beard rarely change equally. The one is usually darker than the other for several years, but there seems no general rule as to which whitens first.

The spot where grayness begins differs with the individual. The philosopher Schopenhauer began to

A FIGHT FOR LIFE.

The *Echode la Frontiere*, a journal of the Department of the North, recently gave an account of a remarkable occurrence in that part of the country. It was to the effect that some ravens that were starving during the snowy weather of January had pounced upon a dog and devoured him. Wishing to assure ourselves of the truth of the statement, we wrote directly to the superintendent of the Saint Albert glassworks, who, at our request, kindly gave us some accurate data upon the subject. We reproduce a portion of his letter:

My dog, which was a long-haired Scotch terrier, was playing with some other dogs in a field adjoining the works, when he was attacked by some ravens that were doubtless famished. He was about two hundred feet from the building when the workmen saw him surrounded by the birds. There were at least a hundred of the latter in the field, but only about thirty of them had attacked him. These at first surrounded him on every side, but soon divided into two bands. Some flew in front of the dog, others behind him, pushing him forward. Those in front of him rose to a height of about six feet and then swooped down upon him, and always struck him in the same place. The dog, which had at first tried to defend himself, endeavored to escape, but the ravens in front and behind prevented him, and kept continually lacerating him with their bills. They had put out one

of his eyes, had made a deep wound in his neck, and would certainly have picked him to pieces upon the spot had not a boy of the establishment been sent to his relief by the workmen.

When the dog was picked up, the ravens, far from flying away, remained near the earth, rather aggressive than timorous. They remained for some time at the spot whence their prey had been taken, while the boy ran to the works with the poor old faithful dog, which had to be killed two days afterward, on account of his wounds.

This account gives a striking example of the terrible fight for life that all living beings are compelled to undertake against each other here below in order to exist. It also shows how much temerity and audacity the cruel necessities of hunger will sometimes inspire an animal with.

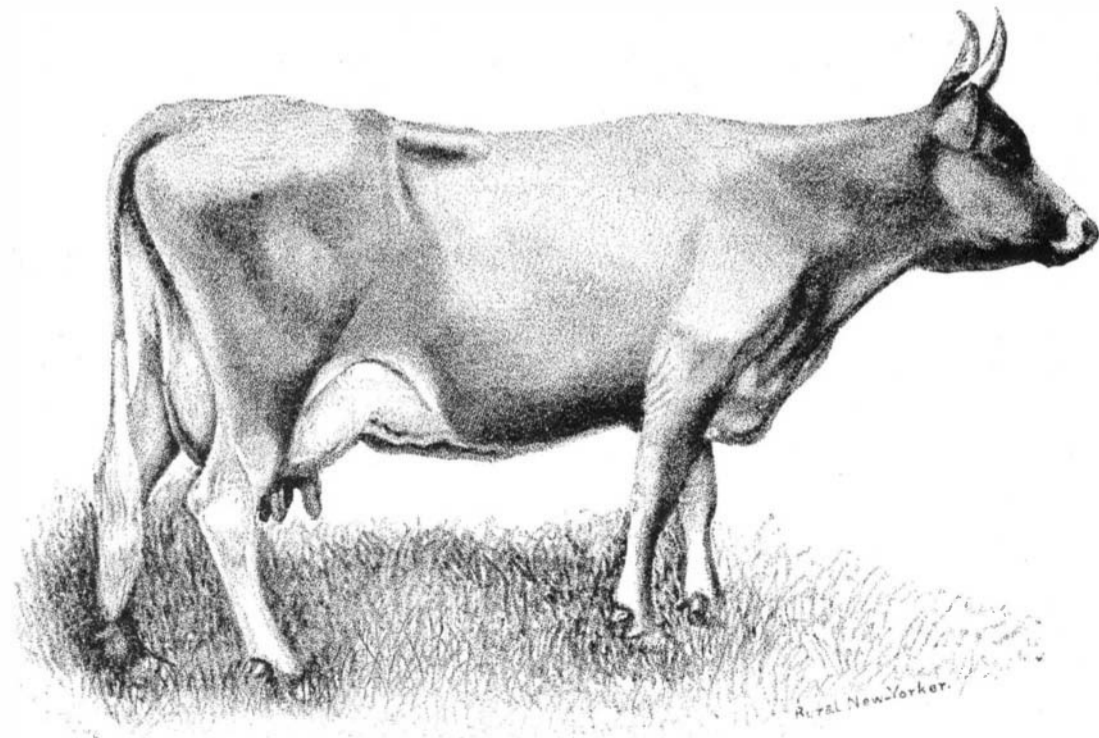
It will be seen that the way in which the dog was attacked may be cited in support of the raven's intelligence. These bands of assailants, separated into two camps of observation, in the midst of which some individual assaulted the victim, certainly obeyed an organized plan of attack.

Count Wodzicki in his book named "The Alps," has, as a conscientious observer, described the habits of ravens, and he tell us that he has several times seen these birds devouring a hare that they had pursued, after charming it with their croakings and forcing it to hide in the ground.

As well known, ravens, which among birds play the same part that the fox does among mammals, sometimes eat barnyard fowls; but it had never been heard that they were capable of giving battle to a dog, even of quite small size. The fact has appeared to us of interest to put upon record. It shows that during winter, when the ground is

covered with snow, these birds may prove dangerous. These audacious plunderers might perhaps, under other circumstances, attack a wounded child, just as they did the dog of the Aniche glassworks.—*La Nature*.

THE appearance of platinum may be given to copper by immersion in a bath composed of 1¼ pints hydrochloric acid, 7½ oz. arsenic acid, and 1¼ oz. acetate of copper. The article must be cleaned before immersion, and left in the bath till it has the color of platinum.



MOLLIE GARFIELD. (From a Photograph.)

turn gray on the temples, and complacently framed a theory that this is an indication of vigorous mental activity.

The correlation of gray hair, as well as its causes, deserve more attentive study than they have received. Such a change is undoubtedly indicative of some deep-seated physiological process, but what this is we can only ascertain by a much wider series of observations than have yet been submitted to scientific analysis.—*Med. and Surg. Reporter*.