

Birds which Sing on the Nest.

BY MORRIS GIBBS, KALAMAZOO, MICH.

Among birds, the females do not sing, and although many species have musical call notes and agreeable tones in conversation, which are shared in by both sexes, still the true song is only rendered by the male bird. I am sincere in saying that the lady bird talks more than her mate about the house, but I will admit that when away from home she is very discreet in this respect. In attending to her duties of incubation she is very quiet, and it is seldom that a note is heard from her while on the nest. It has even been said that all birds are silent when incubating, so as to avoid observation. However, although most species are quiet when sitting, there are a few which chirp loudly when so engaged, and some even burst into exuberant song.

Few observers are aware how assiduous are the attentions of the two birds to one another during incubation, and the credit which is due to the father bird in his devotion in covering the eggs in his mate's absence is not allowed him.

Of course, when a bird is heard singing on the nest we know that the notes come from the male, but many young observers are inclined to attribute the song to the female. Another source of error in failing to identify the sex occurs with those species in which the singing male assumes the plumage of the female until the second or third year.

The chipping sparrow sometimes sings his chattering refrain while upon the eggs. Yellow warblers are not rarely heard singing from the nest, but one has to wait patiently in a neighboring copse, at the proper season, in order to hear, see and be convinced.

I have once heard the Maryland yellow-throat's song from its concealed nest in the grass; in fact, I found the nest, from bearing the peculiar notes, almost at my feet. Several times the song of the house wren has reached me, coming from the cavity where the old bird was sitting solacing himself in his gloomy nesting spot.

Once each I have heard the notes of the black-billed cuckoo, scarlet tanager, orchard oriole, goldfinch and the hermit thrush, the latter the only thrush whose song has positively reached me from the nest. One would think that the brown thrush, cat bird and robin, as great singers, would burst forth on the nest, but it must be borne in mind that these thrushes all prefer higher perches for singing, while the hermit is a ground nester and often sings on the ground.

But of all the species which are musical while sitting, the warbling vireo heads the list, both for persistence and for beauty of song, according to my note-book. Any one can listen to the song of the warbling vireo on the nest if the trouble to find a nest with eggs in May or June is taken. For when the mate takes his trick keeping the eggs warm, he cheers himself, and enlivens the surroundings by pouring forth his rippling, inspiring melodious warble. I have heard him sing from the nest in early morning, in the hottest part of the day, and in the early twilight, and I have heard him issue as many as twenty bursts of song during one spell on the nest, and have discovered the nest on more than one occasion by the sweetly modulated tell-tale song.

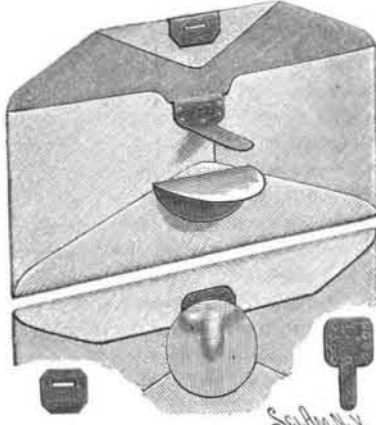
These ten species are all the birds which I have found to sing while on the nest.—*Science*.

Football.

Dr. Amidon, of New York, has taken the pains to make a list from the *Lancet's* reports of accidents that came to the notice of the editor in the year 1892. How many casualties escaped notice cannot be told. In this year 23 deaths occurred in England that were directly traceable to football. Those indirect ones that occurred subsequently or that will occur are left for future historians. Here is Dr. Amidon's little list of the English accidents requiring hospital treatment: Concussion of brain, 3; injury to the head, 1; injury to the nose, 1; fracture of the nose, 1; fracture of the jaw, 1; fracture of the collar-bone, 20; dislocation of arm, 1; compound fracture of arm, 3; fracture of arm, 5; bad fracture of left arm, 2; serious injury to arm, 1; compound fracture of the elbow, 1; fracture of the left wrist, 1; fracture of ribs, 3; severe sprain of thigh muscles, 1; fracture of thigh, 3; injury to leg, 1; fracture of leg, 29; bad fracture of leg, 1; compound fracture of leg, 5; fracture of knee-cap, 1; severe injury to knee-cap, 2; fracture of ankle, 3; dislocation of ankle, 1; sprained ankle, muscles, and tendons severely wrenched, 1; severe injury to foot, 1; fracture of spine, 1; serious injury to spine, 1; serious injury in groin, 1; severe internal injuries, 2; severe internal injuries, fatal in two days, 1; fatal abdominal injuries, 6; undescribed accidents followed by death, 3; undescribed accident followed by lock-jaw and death, 1. Total number of grave injuries, 109. For the year 1893 the returns are not yet in. In the *Lancet* of November 18 there are recorded, as occurring during the preceding week, three cases of fractured leg; one of kick in abdomen, with death; one of concussion of spine; one of fractured clavicle; one of injury and death. This year, therefore, there have been at least twenty-eight deaths in England.—*Medical Record*.

AN IMPROVED FASTENING FOR ENVELOPES.

A durable fastener, permitting of the ready examination of the contents of an envelope, and yet well adapted to hold the envelope securely closed for filing away, is shown in the accompanying illustration, and forms the subject of a patent recently issued to Dr. George A. Harris, No. 301 North Laurel Street, Bridgeton, N. J. The improvement is applicable to any of the ordinary styles of envelope. At the junction or point of overlapping of the side flaps, a metallic re-enforce, or plate of thin perforated metal, is secured to the body of the envelope. The plate, shown in the small figure at the right, has at one edge an extension adapted to form a tongue, and is secured upon the envelope by being bent upon itself, the perforations aiding in retaining it in position. A metallic re-enforce, bent from a blank, as shown in the small figure at the left, is also attached to the flap of the envelope, and has an elongated slot adapted to receive the tongue, the envelope being then fastened by bending down the



HARRIS' ENVELOPE FASTENING.

tongue. An adhesive flap is then secured over the fastening, or any other preferred form of seal may be employed, when the envelope cannot be opened without showing that it has been tampered with.

Snowflake Photography.

Mr. A. Sigson, a professional photographer at Rybinsk, contributes an account of his method of obtaining photographs of snowflakes to the *Journal of the Russian Physico-Chemical Society*. He used a Zeiss microscope provided with an aplanatic lens and a long focus camera. This was placed near an attic window at a strong inclination to the horizon. The flakes were received on some rough cloth and transferred to a small net of cocoon fibers stuck on a card perforated in the middle. This card was placed on the stage of the microscope, and the illumination was so arranged that half the field was uniformly illuminated and the other half shaded off. For an enlargement of fifteen times, the exposure lasted two to five seconds, with plates supplied by M. Lumiere. To avoid the melting of the flakes by the breath of the operator, the latter is obliged to breathe through a pipe bent backward during the adjustment of the apparatus.

HENRY GOEBEL.

On December 4, the death of Henry Goebel occurred in this city, of pneumonia. Henry Goebel was born in 1818, in the village of Springer, a small place not far from Hanover, Germany. He received a fair education in the branches commonly taught in the public schools. He early developed the tastes of a mechanic and a fondness for skillfully working out his ideas in a material form. He early learned the trade of a watchmaker and optician. In the early part of 1849 he landed in New York. He soon began to work on electrical devices and turned his attention to incandescent lamps, and in the early fifties, it is claimed, constructed lamps, first from cologne bottles and afterward from tube glass.

The hairpin lamp was the next form of lamp which he constructed, the leading-in wires being made of iron, platinum, or copper, or sometimes even of other metals. He also made numerous other lamps of the meat saw type from time to time, and during the period from 1860 to 1880 he gave away many lamps of his construction and exhibited many others to his friends. The story of his big telescope, which he exhibited in Union Square and elsewhere in New York City, and with which he used his incandescent lamps to attract customers, is too well known to need repetition here.

In 1881 Mr. Goebel became connected with the American Electric Light Company, and for some time made carbons for it. The reason Mr. Goebel gives why his lamps never came into practical or commercial use is the lack of a suitable source of current. He was obliged to rely upon primary batteries, which were both expensive and unsatisfactory. He did not hear of the application of the dynamo to electric lighting, he claims, until after his connection with the American



Electric Light Company in 1881 or 1882, and it was about this time that he first heard of Edison and his work.

Mr. Goebel's connection with the recent incandescent lamp patent suits has so often been referred to and is so fresh in the minds of our readers that further comment seems unnecessary.—*Electrical World*.

Photographic Notes.

Removing Yellow, Green, Red, or Dichroic Fog.—Dr. Meniere, of Paris, advises the following treatment: Soak the negative in ordinary water for five minutes, and then immerse in—

Water.....	100 parts.
Bromide of sodium.....	3 "
Bromine water.....	3 "

Leave in for ten or fifteen minutes. The bleached image is well washed and dried, and the image redeveloped with an amidol-sulphite developer.—*Br. Jour.*

The Blue Process.—The following process for producing cyanotypes on paper is recommended by Herr F. Veress, the well known photographer of Hungary, in the *Photo. Almanach f. 1893*. Two solutions should be prepared:

SOLUTION A.

Iron and ammonia citrate.....	5 grammes.
Ammonium ferrocyanide.....	2 "
Oxalic acid.....	1 gramme.
Distilled water.....	120 c. c.

SOLUTION B.

Ferricyanide of potassium.....	8 grammes.
Ammonium ferricyanide.....	2 "
Distilled water.....	120 c. c.

The two solutions are mixed and then filtered. Previously moistened glossy baryta paper is floated on the filtered solution for about four minutes, when it is dried at 89° F. The paper is then printed in the usual manner beneath a negative. The prints are washed in soft water, and then placed one by one in a mixture of 100 parts water and 1 part of hydrochloric acid. They are allowed to remain in it about five minutes, until the image has become quite pure. Finally, the prints are well washed in clean water.

To produce blue prints on canvas and silk, the following process is given by the same author: 5 grammes of arrowroot are dissolved in 50 c. c. of water; 2 grammes of gelatine are dissolved in 50 c. c. of warm water; 300 c. c. of water, to which has been added 1 gramme of ordinary white sugar, 10 drops of glycerine, and 5 drops of a saturated solution of caustic potash, are boiled, and the arrowroot and gelatine solution added to it by constant stirring. The liquid is then filtered through flannel in a flat dish resting in a warm water bath. The fabric to be sensitized is placed on the liquid and allowed to float for from four to five minutes; it is then mounted on blotting paper, which is fastened to a drawing board and dried in a warm room. The fabric is sensitized and printed as described above, and it should be used soon, for it quickly loses its sensitiveness. Before fixing, the prints should be placed one by one between sheets of blotting paper, in order to avoid spots. Fixing is done, as above described, in water acidulated with hydrochloric acid.

How to Print on Marble.—Mr. Villon publishes the following process: Coat an unpolished plate of marble with the following solution: Benzine 500 parts, spirits of turpentine 500 parts, asphaltum 50 parts, pure wax 5 parts. When dry expose under a negative, which will take in sunshine about twenty minutes. Develop with spirits of turpentine or benzine, and wash in plenty of water. Now cover the plate where it is intended to be left white with an alcoholic solution of shellac, and immerse the same in any dye which is soluble in water. After a while, when enough of the coloring matter has entered the pores of the stone, it is taken out and polished. The effect is said to be very pretty.—*Photographisches Archiv*.

Thiosinamine as a Photo. Fixer.—Herr Valenta has experimented with thiosinamine as a fixing agent. He finds that silver chloride dissolves in a 1:10 solution of thiosinamine as easily as in hyposulphite, silver bromide dissolves less readily, and iodide scarcely at all. The new solvent, therefore, can only be employed for chloride papers.

Gelatine in Hot Weather.—If in hot weather the gelatine has a tendency to leave the support, *Der Amateur Photograph* recommends a preliminary immersion of the prints for five minutes in—

Potash alum.....	5 grammes.
Water.....	100 "

Wash and tone in—

Aluminum sulphocyanide.....	15 c. c.
Water.....	100 "
Gold chloride solution 1:10.....	10 "

Fixation and washing as usual. The aluminum sulphocyanide is a liquid.

Dr. A. Steinheil.—We have to announce the death, on the 4th ult., of Dr. Adolph Steinheil, a member of the well known firm of opticians in Munich. He assumed the direction of the house in 1862, thus succeeding his father. Astronomical optics engaged his particular attention, while he will ever be associated in photographic history with the aplanats and antiplanats bearing his name.