

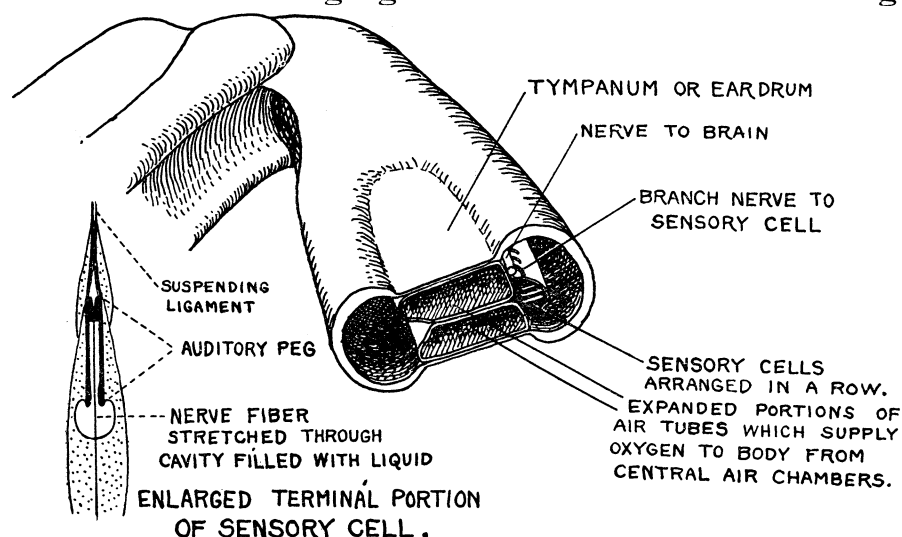
Singing Insects Hear with Front Legs—*Continued*

DIAGRAM OF THE HEARING APPARATUS in the foremost pair of legs in the singing insects

different owners have a range out of all proportion to the variations in the musical apparatus. The stridulating instruments are not developed until maturity when the performer starts in to play his inherited tune without any preliminaries. As one entomologist has remarked: "He never disturbs the neighbors with doleful notes by practicing."

The member of the numerous katydid clan known far and wide to the American public as the greatest of insect singers, is called by scientists by the mellifluous name of *Pterophylla camellifolia*. Whether he is a great musician or not depends on the personal taste of the critic, but of his fame there is no question. Certainly, nothing could be plainer than his vociferous "Katydid" with its endless repetitions and variations, "Katy," "Katy didn't," "Katy she did."

Though the audience of the katydid has a wide range, few claim the privilege of personal acquaintance, from the fact that he has selected for his stage the tallest treetops and seldom descends from his chosen orchestra circle. Country-raised boys and girls and hard-hunting field entomologists know him, but not many more. In color he is plain green with a dark brown triangle on the back covering the stridulating area of the wings. His body is fully one and three-quarters inches long, while his long hair-like antennae measure well over two and a half inches. The rear edges of the leaf-green wings are evenly rounded with their sides plumped out as if to cover a corpulent rotund body. This is a false alarm, however, for the space between them is mostly empty

and probably forms a resonance chamber to give tone and volume to his musical performances. He has a row of prominent waistcoat buttons down his front, or rather his underneath, that rhythmically heave and sink with each breath.

Another insect singer much in the public eye is the black field cricket, a friendly soul of garden and doorway, not averse to taking refuge in the house itself on cool autumn evenings. His European cousin is the famous cricket on the hearth of Dickens' story. The ancient Greeks and Romans called him *Gryllus*, a name which he bears to this day. His musical organs are much like the katydid's but, unlike the latter, he has them equally developed on each wing. So that he can apparently play with either wing uppermost, though in actual practice most crickets consistently wear the right wing uppermost, just the reverse of the katydid custom.

The snowy tree cricket that played a prominent role in Dr. Fulton's concert is really green, but of such a pale shade that he looks white at night. In the great out-of-doors orchestra on warm summer nights, a careful listener may distinguish a short blast repeated a hundred or more times a minute. This strenuous performance is produced by this pale little ghost of an insect no more than half an inch long. The singer raises his wings vertically above the back and vibrates them sideways so rapidly that they are momentarily blurred with each note. He repeats regularly and monotonously all night long. When he first begins singing in July there are about 125 beats per minute, but later on hot

nights the rate will go as high as 200. As fall comes on it decreases to around 100 and finally as the nights grow cold, the notes end in hoarse bleats repeated slowly and tremulously, though still rhythmically, as if the singer were numb with cold or pain. With the coming of the first frosts they die away altogether.

Science News-Letter, August 18, 1928

Birthplace of Icebergs

Geography

The birthplace of the icebergs that menace the transatlantic steamers has been located by the oceanographic expedition of the U. S. Coast Guard on board the steamship Marion.

The ship is now well above the Arctic Circle and has just proceeded across Diske Bay between hundreds of towering ice islands.

"We are now viewing the birthplace of the icebergs of the North Atlantic, the entrance of Jacobshavn Fjord, which is literally jammed with thousands of bergs so close that we cannot penetrate with the vessel," Commander Edward H. Smith, in command, explained in his report to Science Service.

The Marion on its voyage northward in Davis Strait between Labrador and Baffin Land on the west and Greenland on the east, has noted the number of icebergs. The scientists aboard have also charted the ocean currents that bring the icebergs southward to endanger the steamship tracks. The contour of the sea floor that sometimes allows the great ice masses to ground and be delayed in their southward journey is also being investigated.

Commander Smith will shortly head a landing party that will investigate the Greenland ice cap at this point. The rate of movement of the glaciers that drop the icebergs into the sea will be measured. New knowledge of the rate at which icebergs are born of the ice cap is expected as a result of these studies.

Amateur radio station 2WI, operated by William A. McClintock at Westfield, N. J., cooperated with the Marion expedition and Science Service in establishing radio contact with the Marion's radio station, NITB.

Science News-Letter, August 18, 1928

A bronze lock found on a tomb near Jerusalem and dating back to the early Christian era is pronounced a safety device of an elaborate type not known in modern Europe before the end of the eighteenth century.