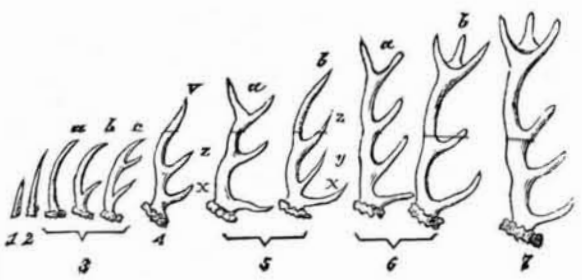
METAMORPHOSIS OF THE DEER'S ANTLERS.

Every year in March the deer loses its antlers, and fresh ones immediately begin to grow, which exceed in size those that have just been lost. Few persons probably have been able to watch and observe the habits of the animal after it has lost its antlers. It will, therefore, be of interest to examine the accompanying drawing, by Mr. L. Beckmann, showing a deer while shedding its antlers. In the illustration the animal has just lost one of its antlers, and fright and pain cause it to throw its head upward and become disturbed and uneasy. The remaining antler draws down one side of the head and is very inconvenient for the animal. The remaining antler becomes soon detached from its base, and the deer turns—as if ashamed of having lost its ornament and weapon—lowers its head, and sorrowfully moves to the adjoining thicket, where it hides. A friend once observed a deer losing its antlers, but the circumstances were somewhat different. The animal was jumping over a ditch, and as soon as it touched the further bank it jumped high in the air, arched its back, bent its head to one side in the manner of an animal that has been wounded, and then sadly approached the nearest thicket, in the same manner as the artist has represented in the accompanying picture. Both antlers dropped off and fell into the ditch. Strong antlers are generally found together, but weak ones are lost at intervals of two or three days.

A few days after this loss the stumps upon which the antlers rested are covered with a skin, which grows upward very rapidly, and under which the fresh antlers are formed, so that by the end of July the bucks have new and strong antlers, from which they remove the fine hairy covering by rubbing them against young trees. It is peculiar that the huntsman, who knows everything in regard to deer, and has seventy-two signs by which he can tell whether a male or female deer passes through the woods, does not know at what age the deer gets its first antlers and how the antlers indicate the age of the animal. Prof. Altum, in Eberswalde, has given some valuable information in regard to the relation between the age of the deer and the forms of their antlers, but in some respects he has not expressed himself very clearly, and I think that my observations given in addition to his may be of importance. When the animal is a year old—that is, in June—the burrs of the antlers begin to form, and in July the animal has two protuberances of the size of walnuts, from which the first branches of the antlers rise; these branches having the length of a finger only, or being even shorter, as shown at 1 in diagram. After the second year more branches are formed, which are considerably longer and much rougher at the lower ends than the first. The third pair of antlers is different from its predecessors, inasmuch as it has "roses," that is, annular ridges around the bases of the horn, which latter are now bent in the shape of a crescent. Either the antler has a single branch (Fig. 3, *a*), or besides the point it has another short end, which is a most rare shape, and is known as a "fork" (Fig. 3, *b*), or it has two forks (Fig. 3, *c*). In the following year the antlers take the form shown in Fig. 4, and then follows the antler shown in Fig. 5, *a*, which generally has "forks" in place of points, and is known as forked antler in contradistinction to the point antler shown in Fig. 5, *b*, which retains the shape of the antler, Fig. 4, but has additional or intermediate prongs or branches. The huntsmen designate the antlers by the number of ends or points on the two antlers. For instance, Fig. 4 is a six ender; Fig. 5 shows an eight ender, etc.; and antlers have been known to have as many as twenty-two ends. If the two antlers do not have the same number of ends, the number of ends on the larger antler is multiplied by two and the word "odd" is placed before the word designating the number of ends. For instance, if one antler has three ends and the other four, the antler would be termed an "odd" eight ender. The sixth antler shown in Fig. 6 is a ten ender, and appears in two different forms, either with a fork at the upper end, as shown in Fig. 6, *a*, or with a crown, as shown in Fig. 6, *b*. In Fig. 7 an antler is shown which the animal carries from its seventh year until the month of March of its eighth year. From that time on the crowns only increase and change. The increase in the number of points is not always as regular as I have described it, for in years when food is scarce and poor the antlers are weak and small, and when food is plentiful and rich the antlers grow exceedingly large, and sometimes skip an entire year's growth.—*Karl Brandt, in Leipziger Illustrirte Zeitung.*



METAMORPHOSIS OF DEER'S ANTLERS.

A SYNDICATE in Galveston proposes to build wharves out to deep water in the Gulf of Mexico. To do this they will try to borrow $5,000,000 of the State's surplus, which will exceed $5,000,000 two years hence, and will be $10,000,000 within five years if the State sells the school lands.

Bourseul's Claims to the Invention of the Telephone.

A correspondent sends us the following interesting communication: "After the able manner in which Professor S. P. Thompson has put forward the claims of Reis as the first and true inventor of the telephone, as opposed to those of Bell, it is rather surprising to suddenly come across a publication to the effect that the labors of both these men have been anticipated by one Charles Bourseul, in 1854. The publication in question is a lecture delivered by Captain Holthof, in April, 1881, to the Electrical Society of Frankfort, and will be found on page 48 of that society's *Journal*, which, for some reason unknown, has only just appeared.

"The following passage, quoted from the lecture, will be read with interest: 'If we agree to call the true inventor that man who is the first to conceive clearly a new idea, and who tells us how this idea can be carried out in practice, then the telephone was invented in 1854 by Charles Bourseul, a Frenchman, and about that time a soldier in the African army.' We learn further from the same source that the invention had been communicated in 1854 to the French Academy, and that more or less detailed descriptions of it went the round of the German papers of that period. Notable in this regard is one article which appeared on the 28th September, 1854, in the *Didaskalia*, a supplementary paper to the *Frankfurter Journal*, which sets forth the very gist of the invention so clearly that, in spite of its ancient date, a short abstract from this paper may be interesting to our readers:

"An electric current passing through a wire transforms a piece of soft iron into a magnet. If the current ceases, the magnetism also ceases. This electromagnet can be made to alternately attract and release a movable plate, which in its to-and-fro movements produces the conventional telegraphic signals. Now, it is also known that all sounds which reach our ear are produced by vibrations in the air, and that the infinite variety of sounds depends solely on the speed and magnitude of these sound waves. If, now, a metal disk could be invented which would be flexible enough to reproduce all the sound waves transmitted to it by the air, and if that disk could be connected to an electric circuit—in such a way that in conformity with the vibration of the air it would start and interrupt the current—then it would also be possible to cause a similarly constructed metal disk, in electrical connection with the first, to repeat all the movements of it, and the effect would be the same as if one had spoken directly against this second disk—that is to say, the ear would be affected in the same manner as if it heard the speech directly through the first metal diaphragm.'

"Captain Holthof considers it very astonishing that Reis did not know of Bourseul's invention, but infers this to be the case, as otherwise he would have introduced at once the second diaphragm. As regards Bell, the lecturer thinks it 'downright incredible' that Bourseul's labors should not have been known to him. In conclusion, Holthof suggests that Bourseul should be recognized as the father of the telephone." We may add that the claims of Bourseul in this direction have had a most notable advocate in M. le Comte du Moncel, the well known and prolific writer on electrical subjects.—*The Electrician.*

A PARTY of Italian scientists have just returned from an expedition to the South Pacific, having proved to their own satisfaction that a race of giants once existed in Patagonia. In wandering over Terra del Fuego they found human bones of marvelously large size.