

SCIENCE.

FRIDAY, FEBRUARY 5, 1886.

COMMENT AND CRITICISM.

THE INTERNATIONAL COPYRIGHT LAW has received new interest by the introduction of Senator Hawley's recent bill. It is remarkable with what unanimity the better class of authors, periodicals, and publishers have long sought unavailingly the passage of such a bill. In the recent hearing before the senate committee, a number of our most prominent authors spoke in favor of the passage of some law on international copyright. Prominent among those who favored the measures were the Rev. Dr. Crosby, Mr. Henry Holt, Mr. George Ticknor Curtis, Mr. H. E. Scudder, Mr. James Russell Lowell, Mr. Estes, Mr. Samuel Clemens, and others. A memorial signed by over two hundred prominent authors was also presented. The arguments used by these gentlemen were, that the present system of copyright law was not only disadvantageous, but dishonest and unjust; that it worked to the great disadvantage of American authors, and prevented the publication of many meritorious works; that it made books dearer, and lowered our literary taste. Mr. Lowell was satisfied that the reading public of America being much larger, and the demand for cheap books greater, the result of a copyright law would be the transfer of the great bulk of the book-trade to America. Of course, in the passage of such a law, measures should be instituted to protect those who have been encouraged under our laws to become pirates of foreign books. Some, among whom Mr. Clemens may be mentioned, urged that the bill should require all foreign books to be printed here.

THIS COUNTRY IS NOT ALONE in its trouble with the silver question. At the meeting of the council at Calcutta on Jan. 11, the most diverse views were expressed as to the influence the depreciation of silver has had in benefiting the trade of monometallic (silver) India. On this subject public opinion is said to be hopelessly divided. Speaking generally, the commercial men are inclined to agree with Mr. Steel's view, which he upheld at the council meeting, that India is a distinct gainer

by the depreciation; while the rest of the community, following the lead of Sir A. Colvin, Mr. Hope, and Mr. Evans, attribute the extension of trade to other causes, and regard the continued depreciation of silver as a most serious danger, calling for careful consideration and prompt action on the part of the home government.

THE GREAT DECREASE in the numbers of many of our birds during late years, brought about in the interests of fashion or other mercenary motives, or through malicious wantonness, has induced the Ornithological union to appoint a committee, composed of a number of our leading ornithologists, on the 'protection of North American birds,' whose object shall be the gathering of information on the subjects of their destruction and protection. The committee will welcome information from any source, and those interested are urged to address such to the officers or members. The secretary is Mr. E. P. Bicknell of New York.

THE INVESTIGATIONS in economic ornithology began under the department of agriculture, July 1, 1885, and have already been successful in bringing together a very large amount of useful material. The scope of the inquiry is, briefly, the collection of all information leading to a thorough knowledge of the inter-relation of birds and agriculture, and concerns both the food-habits and the migration and geographical distribution of North American birds. About fourteen hundred observers are scattered all over the country. Prof. W. W. Cook, superintendent of the Mississippi valley district has prepared a report which is the most valuable contribution ever made to the subject of bird-migration. It is now in the hands of the printer. The English sparrow exerts a more marked effect upon the interests of the country than any other species of bird. The unprecedented increase and spread of this naturalized exotic, taken in connection with the extent of its ravages in certain districts, is regarded with grave apprehension. The study of this little pest developed the fact, that while it does sometimes eat grasshoppers, cicadae, and other insects, the sum of its injurious qualities probably exceeds and outweighs the sum of its

benefits. The Ornithological union has hopes that congress, during the coming session, will provide means for the proper extension of the inquiry. The practical bearings of the investigations are not obscure. When the limitations of the several faunal areas have been ascertained with sufficient exactness, it will be possible to predict the course which an injurious insect will pursue in extending its march from the point where its first devastations are committed; and farmers may be thus forewarned, so that those living in districts likely to be infested can plant different crops, and thus be saved large pecuniary loss, while those living just outside will derive increased revenue from the particular crop affected.

THOSE WHO DO NOT as yet feel sure of M. de Lesseps' ability to carry through his canal from ocean to ocean will be surprised to learn that he is already planning to take part in the long-discussed project of an African inland sea. On the 20th of January a meeting was held in Paris by the promoters of the North African inland sea scheme, at which M. de Lesseps stated that Captain Landas was about to survey the Tunisian oases, and that on his own return from Panama, by April at latest, the company would be formally constituted.

RECENT NUMBERS OF THE *Rundschau* illustrate some aspects of psychological activity to which the German public are giving attention. Professor Golz contributes a lengthy but very well written article on brain localization. Professor Golz is generally regarded as an extreme 'anti-localizationist.' Perhaps the present article embodies his later convictions, in which, though not yielding his former position, he has stated it in a way that allies his opinions with those of other experimenters. He calls his article 'Modern phrenology,' comparing the modern attempt to mark off the cortex of the brain into functional areas to the attempts of Gall and Spurzheim to correlate mental faculties with cranial formations. The cortex is not, according to his views, a mosaic of sensory and motor areas, such as Ferrier, and especially Munk, would have us believe. The experiments do not bear out that conclusion: for the loss of motion and sensation following the extirpation of certain brain areas is not permanent; the function is regained if the animal survives. In many cases the animals have not

been kept long enough. The lack of certainty that the underlying fibres have not been stimulated is another objection. Moreover, there is no part of the cortex of which you can say that its removal must cause the loss of sensation or of motion. Not even Broca's convolution, the close relation of which to the language centre has always been a firm support to the localizers, is exempt from this criticism. Professor Golz devotes the main part of his paper to a critical review; in conclusion, however, he suggests what he considers to be the true relation of cortex to function. Flourens thought that the whole cortex was alike in significance: modern 'localizers' hold that no two parts are functionally alike.

The true view lies between the two. If we compare the cortex to a map, Flourens would make no distinction between one part of the map and another. The 'localizers' mark it off into countries; i.e., political divisions, with sharp, distinct boundaries. Professor Golz would mark his map off like those which represent the distribution of plants. In one part the vine would have its centre; in another, rice; in a third, barley: but each would have some vine, some rice, and some barley, although there would be places which would have neither. The boundaries between the regions are loose: we have a focus, but it is not a point. These views are certainly rational, and coincide almost exactly with Lunani's and Exner's results. Perhaps it is not too hazardous to say that a strict localization of function can no longer be upheld.

In the last number, Professor Preyer warns the German public against accepting the results of the English society for psychic research as regards telepathic communication. He explains away the facts upon which their conclusions are based by showing a neglect of the sources of error. In guessing what was being written in another room, the errors made were of such a nature as would occur if the hand had been seen (not errors in the hearing of the words): hence, as the girl who did the guessing was alone in the next room, Professor Preyer ascribes the telepathy to the keyhole. He certainly has made out a strong case, and, what is more important, has shown that the English society has not made its case nearly strong enough to found upon it so alarming an hypothesis as the communication of mind with mind without the use of the ordinary channels of sensation.

AT A MEETING of the Cosmos club of Washington on Monday, Feb. 1, it was decided to purchase the 'Wilkes' property, on the corner of Madison Place and H Street, a few doors north of the present quarters of the club. The club proposes to build an assembly-room, to be used for receptions and for meetings of scientific societies. The resolution to purchase the property was passed unanimously, and is a move in the right direction. The present quarters are very limited, and, as the club is growing so rapidly, pressing need was felt for more room. The newly acquired property is situated in one of the most desirable localities in the city, and will afford the club many conveniences and comforts hitherto denied them.

AMERICAN FISHERY INTERESTS.

THE fisheries-treaty question, which is now the subject of so much discussion, is a very complicated one; and it is not at all surprising that the secretary of state, following traditional policy of more than a hundred years' standing, and acting upon the long-established theory that participation in the fishery privileges of Canadian waters is of great value, should have failed to satisfy the expectations of the New England fishermen, who know so well that these privileges have long been valueless. A general impression seems to exist that our fishing-fleet no longer visits the Gulf of St. Lawrence, only because there has been a temporary desertion of those waters by the species of fish which they seek. Such, also, is the idea of the Canadians. In his recent article in the *North American review*, Lord Lorne patronizingly suggests to his 'good friends' across the line that they should not be too hasty in throwing aside the right to fish in English waters, because the fish may before long return in their former abundance.

As a matter of fact, the abundance of fish in the Gulf has very little to do with the question as it now presents itself. Since 1871, when the Washington treaty was negotiated, a complete revolution has taken place, both in the fisheries and the fish trade of the United States; and, strangely enough, this revolution was effected chiefly in the six years which intervened between the completion of this treaty and the meeting in 1877 of the Halifax convention, by which \$5,500,000 were awarded to Great Britain as a compensation for a concession to our fishermen, which had ceased to be of value

to them, in addition to the remission of duties on Canadian fish, which during the period of fourteen years have amounted to several millions of dollars. Our government has thus, unintentionally of course, been paying each year a large subsidy to the fisheries of British North America, and developing the Canadian fisheries at the expense of our own; and Canadian competition has become so great that our fishermen feel that they have a strong claim upon the government for some kind of protection. The fishermen therefore demand that the duty upon Canadian fish be restored, and that their own privileges shall be based upon the provisions of the treaty of 1818, which will again go into effect, if no new treaty arrangements are made. Our dealers in cured fish, on the other hand, mindful of the profits of handling the product of the Canadian fisheries, are clamorous for a continuance of the present free-trade policy.

The revolution in the American fisheries is so extensive that it can scarcely be discussed in a notice so brief as this. One of the principal changes is the adoption of the purse-seine in the mackerel fishery, by which the fish are caught far out at sea and in immense quantities by enclosing them in an immense bag of netting. Formerly they were taken solely with hooks by the 'chumming' process. This was in the best days of the Gulf of St. Lawrence mackerel fishery, when hundreds of American vessels would frequently lie side by side, throwing overboard vast quantities of oily, mushy bait, by which the schools of fish were enticed within reach. There is no reason to doubt that mackerel were as abundant then as now off our own coast, but the old method of fishing was not so well adapted to our waters. The purse-seine, on the other hand, cannot be used advantageously in the Gulf, nor is there any necessity for our fishermen to go so far from home for their fish. There does not appear to be any probability that our fishermen will ever return to the old methods. 'Chumming mackerel' is essentially a lost art.

Another feature in the revolution is the introduction of improved methods of marketing fresh fish. With the extensive refrigerating establishments now in operation, and the facilities for rapid transmission of sea-fish inland, the demand for salted fish is relatively very much less than it was fifteen years ago. Then, too, the immense competition produced by the free entry of Canadian fish has lowered the price of cured fish, until a very decided depreciation in its