try, is so far protected that no other publisher than the one with whom the author has arranged can bring it out. There is no such law, nor even any such custom, in this country. But so great an advantage has an American publisher over his competitors, when by previous arrangement he is enabled to bring out an American edition of an English book simultaneously with its appearance abroad, that he rarely hesitates to take the risk, and he pays the English author or his representative well for this advantage of simultaneous publication.

Now, what the Englishman is doing for us under cover of a strong custom, and so far undisputed law, let us do for him under sanction of a statute; and the problem is so far solved that we may safely leave all petty details to be adjusted by the laws of trade between the two countries, and the interests of the parties chiefly concerned. Simultaneous publication, then, in the two countries, is the fairest way out of our difficulties. It is so far compulsory that it makes the best foreign thought as immediately available in America as in Europe. It compels the publisher and author not to suit their own convenience, but to study the demands of two continents; and 'the progress of science' will receive by such a course an impetus which no method, planned for the advantage of the author alone, or the publisher alone, or the people alone, can possibly give.

H. E. SCUDDER.

INTERNATIONAL COPYRIGHT.

"The question of copyright, like most questions of civil prudence, is neither black nor white, but gray." So said Mr. Macaulay. Mr. Lowell says it is a question of robbery; the American copyright league, a question of piracy. Those who use these epithets base their assertions upon the ground that an author has a broader, more extensive right of property in his publications than in other property. That a man has property in the production of his brain which ought to be protected is admitted; but the extent of that protection must depend upon the public interest.

Scruton, in his book entitled 'Laws of literary property,' published in 1883 in London, says, "Utilitarianism is the groundwork of the science and art of legislation, and therefore the reason which justifies the enactment of any particular law is the ultimate benefit to result to the community from its conformity to such a law." This claim of property in books, as made by Mr. Lowell and the league, is of modern origin, and was not made until the early part of the last century, long after the introduction of printing, and is not recog-

nized by any civilized government. Grants in the nature of copyright were first made to printers, to encourage the multiplication of books, and were subsequently made for the benefit of the authors. In England the courts have decided that, at common law, an author had no right of property in his publications, and that whatever rights he has have been created by statute law.

Our constitution provides that congress shall have power "to promote science and the useful arts by securing for limited times to authors and inventors the exclusive right to their respective writings and discoveries." The powers of congress are more limited than those of the parliament of Great Britain, which are not restricted by any constitution; and many grants which in England have been made 'for the benefit of authors,' would in this country have been unconstitutional. Every copyright is a monopoly. This proposition has been admitted by some of our authors, but denied by others who were probably ignorant of the meaning of the word. A monopoly is 'an exclusive trading privilege:' it is "the sole right or power of selling something; the full command over the sale of any thing; a grant from the sovereign to some one individual, of the sole right of making and selling some one commodity."

Every monopoly must be construed strictly, and should not be extended where reasonable doubt exists against the right. If authors limited their claims of property in the productions of their brains to the manuscript or a printed copy, no one would dispute their right to hold or lease or sell it; but they claim much more, —the monopoly of publication and selling, the exclusive right of multiplying copies everywhere and in every tongue and for all time, and they appeal to the government for aid in enforcing this right. Every nation has repudiated this claim as contrary to the interests of the public, and granted only such limited rights as it judged expedient.

General Hawley, who introduced the bill favored by the league, which gave the foreign author permission to publish abroad or in this country, realizing the weight of the objections made by the publisher and printer, that it would result in transferring the printing of all international copyrighted books to foreign countries, proposed an amendment to his bill, providing that every foreign book copyrighted in this country should be printed and published here. If the view of the league is correct, this amendment robs the foreign author of a part of his property by depriving him of the privilege of selecting the time or place of publication, or choosing his publisher. The tendency of this amendment would be to increase the cost of copyrighted books,

as the foreign edition, if made large enough to supply both countries, could be sold much cheaper here than a new edition printed in this country. It is asserted that this difficulty would be obviated by the tariff laws, as there is a duty of twenty-five per cent on books; but this is offset by duties on paper, type, ink, and other materials that enter into the composition of a book, and also by cheaper foreign labor.

There is apparently a wide-spread desire for an international copyright; but, so far as my observation extends, this wish is confined to English and American authors, or solely to parties who have a direct interest in the matter. England favors it because she will receive much greater benefit from our international copyright than America from an English international act, as ten English books are sold here for every American book sold there. A careful consideration of the whole subject will show that each country favors such legislation as is most conducive to its interest, and that the judgment of every author and publisher upon this subject is influenced, even if insensibly to himself, by the same motive. These authors and publishers are interested witnesses; and I believe there is not a single disinterested witness among those who have appeared before congress, favoring this measure.

This interest does not affect all authors alike; for some write because they cannot help writing, some for the purpose of benefiting the public, others for fame, while only a few write simply for money. Many of our old authors wrote before any copyright existed, and some of our best living authors would have written if we had no such laws. But authors cannot live on fame, and, like other workers, should be fully and amply compensated.

The copyright is of much less direct value, either to the public or authors, than is generally supposed. It is only the best authors who would suffer if we had no copyright. Mr. Holt, one of our largest publishers, states, that, out of every five publications, one is a failure; three barely pay the cost of publication; while the fifth, besides paying its cost, defrays the general expenses of the business belonging to the five books, and a profit to the publisher and author.

The indirect benefit is much greater; for the successful book is generally known to all, and incites authors to write and booksellers to publish. Special and scientific books often have few readers, and yet are of greater public benefit than more popular works. These are published in the expectation that the slow and steady sale during the life of the monopoly will pay the cost, and yield some profit and some fame to the author. How far this monopoly should be extended, and whether

foreigners should enjoy it, are questions of expediency, and not of right. Wherever such extensions will promote science and the arts, they should be granted.

The direct benefits of international copyright are much less than those from our own copyright laws, while the direct injury will be very great, as is shown by the arguments in its favor. The reasons assigned by the league, at the hearing before the senate committee for an international act are:—

First, that it would increase the price of foreign books, and stay the flood of cheap literature that now deluges the land; second, that it would increase the demand for American works, raise their price, and thereby benefit the American author.

The opinions varied in regard to the increase in the price of foreign books that would be caused by an international copyright, though all agreed that the publication of cheap editions of new books would be discontinued. I requested a bookseller of New York to prepare a list of a considerable number of choice English books, exclusive of special and scientific books and works of fiction, with the prices of the foreign edition in London and New York, and of the reprint in this country. The aggregate price of 42 books in London was \$339; of the same editions in New York, \$545.80; of the reprint, \$140.90. The average cost per copy was \$8.07 in London; \$12.90, same edition, in New York; \$3.35 for the reprint. these books have been reprinted in cheap editions at from ten to twenty cents per volume. If the act proposed by the league were passed, and the books published in London and sent here for sale, the prices would be regulated by the prices in London; for, if it were considerably lower here, the books would be sent back to England for sale. If published here, either by a London or American house, the price would not much exceed the price of American books of the same class.

Mr. J. R. Lowell, on the second day of the hearing, gave it as his opinion that the price of American books would not be raised, as the increased demand, when the cheap reprints were stopped, would yield sufficient profit to the publisher at the old price.

Mr. Holt, a publisher of New York, and Mr. Estes, a bookseller of Boston, agreed that the cheap reprints had reduced the demand for American books so largely that the inducement to write was insufficient.

In answer to these statements, it was shown, that, notwithstanding the great depression in all kinds of business for two or three years, the number of copyrighted books had increased from 8,000 in 1876, to 10,000 in 1885, or twenty-five per cent

in nine years, showing the same ratio of increase with our population, and that the books copyrighted in America exceed those copyrighted in Great Britain.

These figures prove conclusively that the cheap foreign literature has increased the demand for American books by enlarging the circle of readers and cultivating a taste for reading; that an international copyright must, as all its advocates admit, increase the price of foreign books, cut off the supply of cheap literature, and thereby check the growing desire for reading; that it would therefore be a tax on knowledge, and would neither be for the interests of the people nor of the American authors, and will not promote science and the useful arts.

GARDINER G. HUBBARD.

A NEW ROUTE TO SOUTH-WESTERN CHINA.

MR. HOLT S. HALLETT'S studies and explorations have revolutionized our ideas with regard to the geography of Indo-China. It was only six years ago that Archibald Ross Colquhoun was an unknown engineer in the public works department of British Burmah. He became interested in the geography of Indo-China, and accompanied an expedition sent by the Indian government to Zimmé in northern Siam. The information gathered on that journey is embodied in his 'Amongst the Shans.' This trip only whetted his appetite for adventure, and in the winter of 1881-82 he crossed southern China from Canton to Mandalay. His intention had been to connect this exploration with that made on the Zimmé expedition. The local Chinese officials, however, placed so many obstacles in his path, that, when almost within sight of the boundary separating the Shan states from Yunnan, he was obliged to turn back and to make the best of his way to Mandalay by the comparatively well-known route via Tali-fu and Bamo. As he was about to lead another expedition to the Shan country, he was sent by the London Times as a war correspondent to Tonquin. Unable to carry out his explorations in person, he found a worthy coadjutor in Mr. Hallett, a practised surveyor, who had been for years in charge of some of the most important divisions of British Burmah. The object these two men had in view was the finding of a practicable railway-route connecting India and some British seaport with the fertile portions of south-western China.

Indo-China — as the south-eastern section of Asia, lying to the south of China proper, is now conveniently termed — is divided into three great natural divisions, — the western, drained by the

Irawaddy, Sittang, and Salwen, into the Bay of Bengal; the central, by the Meh-Kong or Cambodia River, and by the Meh-Nam, a river of Bangkok, into the Gulf of Siam; and the eastern, by the Son-tai, or Red River of Tonquin, into the Gulf of Tonquin. The valley of the Irawaddy is separated from that of the Salwen by a vast mountain-chain, while the eastern and central divisions are separated by a range or backbone running from the Tibetan plateau to the Malay peninsula. The lowest level of this latter range is in the latitude of Maulmain, a British seaport situated on the estuary of the Salwen. Now, as the most fertile portion of Yunnan is in the central division, obviously the best route for reaching it lies in crossing this great mountain-range in the latitude of Maulmain. This was the first conclusion at which the explorers arrived.

It is true that the line *via* Bamo and Tali-fu had hitherto been the favorite route. But, as Mr. Hallett points out, although the distance between those two towns in a direct line is only two hundred and fifty miles, the shortest practicable route for a railway would be very nearly six hundred miles in length; and even then four passes between eight thousand and nine thousand feet above sea-level would have to be crossed.

Mr. Hallett's plan consists, then, in a railway running from Bangkok, the capital of Siam, up the Meh-Nam to its junction with the Meh-Ping; thence up the Meh-Ping by Raheng, where the line from Maulmain would come in, to a point near the confluence of the Meh-Ping and the Meh-Wung; then up the latter river, and across the water-parting between the Meh-Nam system and the Meh-Kong or Cambodia River, to the Meh-Kong at Kiang-Hsen, a town near the boundary between the Siamese and Burmese Shan states; thence over the plain bordering the Meh-Kong to Kiang-Hung, a town within fifty miles of Ssumao, a Chinese frontier town where Colquhoun was turned back.

The southern portion of this route was well known, owing in a great measure to the efforts of the American missionaries in Siam. Mr. Hallett's task, therefore, was to connect their explorations with those of Colquhoun. He carried to his work the skill of a practical engineer, and his surveys were made with such splendid precision that the cartographer of the Geographical society was able to construct an excellent map of northern Siam, which is reproduced in this number of Science.

Of course, there are several objections to this proposed route. It can be only indirectly con-

¹ "Exploration survey for a railway connection between India, Siam, and China" (*Proc. roy. geogr. soc.*, January, 1886).