highest possible order at the present time is thus seen to be a patriotic service, which should be considered very seriously by those who are in position to render it. The uncertainty as regards prompt publication only adds to the credit due to those who are undertaking such service at the present time as far as opportunities connected with direct work for winning the war are not jeopardized thereby. It is perhaps reasonable to expect that scientific publications in the English language will find a wider market after the war than before, and that the public will then have acquired a higher appreciation of the nation's need of science.

It is perhaps especially important to emphasize the need of a vigorous development of pure science at this time in order that the applied sciences whose active development is being encouraged by immediate needs may not suffer later on account of a lack of theoretic impulses. The fact that applications do not always appear along expected lines was recently emphasized by H. Lebesgue in a review published in the *Bulletin des Sciences Mathématiques,* April, 1918, where he refers (page 94) to the fact that from the time elliptic functions were first discovered about a century and a half ago, mathematicians decided that they should have practical uses. Up to the present time the only applications of elliptic functions are the applications of mathematicians, who still await the first confirmation of their *a priori* idea as regards their practical usefulness.

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SCIENTIFIC BOOKS

Patenting and Promoting Inventions. By Moïs H. Avram, M.E., New York. Robert M. McBride & Co. 1918. Pp. 166. $1.25, postage extra.

By reason of the comprehensiveness, balance and candor of its brief discussions, this little volume seems to deserve clear differentiation from the familiar and misleading booklets designed merely to promote the soliciting business of firms advertised thereby. Beginning with its preliminary chapter (a general survey) entitled Why Inventors Fail, and throughout the seven successive chapters covering in outline the evolution of the patent system, the United States patent practise, the patenting of inventions abroad, patent attorneys, and expert investigations extending even into the very practical collateral questions of manufacture, markets and financing, there is however maintained a natural emphasis upon the need, shared by the inventor and the investor, for advice and assistance on the part of those technically qualified. In proportion as this need seems both real and permanent, in the complex industrial organization from which there seems no possibility of a return, such emphasis seems timely.

In his references to those who have to do with the work and administration of the Patent Office the author is not ungenerous. The uncertainties at present inherent in the development of inventions are neither exaggerated nor concealed. But not every reader may be able to share the author's apparent conviction that a timely resort to expert private advice would notwithstanding save the day for the inventor or the investor. Disregarding the fact that there are, of course, experts and "experts," it may be suggested, by way of supplement, that so long as there shall continue at the Patent Office a rapid flux in its inadequate and disheartened force, apparent defects in its organization and in its informative resources and an atmosphere of legal technicality, without due time or incentive for a broad consideration of scientific, economic or equitable considerations, there can be little hope for such service and security as the patent system was designed to afford. To the reviewer, it is accordingly a matter of gratification to find that the need for collective effort, involving some legislative action, is appreciated, even though it is not stressed in the work under review.

Although perhaps hardly pretending to the solidity of a work of reference, this volume seems sufficiently comprehensive and exact to justify the inclusion, in any subsequent edition, of such an index as would facilitate

ready reference to numerous minor topics—such as reissues, disclaimers, forfeitures, interferences—which are discussed in brief but effective subordinate paragraphs.

BERT RUSSELL

RECOMMENDATIONS OF THE AGRICULTURAL ADVISORY COMMITTEE

SECRETARY HOUSTON has received the recommendations of the agricultural advisory committee reported at the conclusion of its meeting in Washington, June 27 to July 2. The following are among the most important subjects considered by the committee:

1. Indorsement of Henry C. Stuart, chairman of the agricultural advisory committee, for appointment on the War Industries Board as representative of agriculture.

Following is the text of the resolution:

Resolved, That the full committee indorses the action of the executive committee in asking for the appointment of the Hon. Henry C. Stuart, the chairman of the Committee, upon the War Industries Board.

2. Facts were submitted to the committee showing that the harvest of spring wheat would come at a season when soldiers would probably just be entraining for military services, and they would therefore be lost to the wheat harvest in the spring wheat region. The committee, therefore, passed a resolution, to be presented to Provost Marshal General Crowder, asking that temporary deferred classification be granted to the men called July 22–27, before their entrainment, that they might help in the harvest before leaving home, rather than to report at their cantonments and then be furloughed back, thus saving expenses to the government and preventing a loss of time for the men.

3. A full discussion was had of the unusual car shortage and the delays in the shipments of live stock and grain during the past winter, resulting in large financial loss to the producers. Attention was called to the fact that transportation conditions were still unsatisfactory and the Department of Agriculture and the Food Administration were requested to take up the matter again with the Railroad Administration, with the view of insuring relief in these matters. A subcommittee on transportation was appointed, of which Henry C. Stuart was chairman, to act with the two departments in placing this matter before the Director General.

4. Consideration was given to criticisms that had been made in regard to the application by division heads of the rules and regulations of the War Industries Board regarding wool. There seemed to be ground for believing that some of the interpretations of the rules worked a hardship on the wool growers. A subcommittee was appointed to look into this matter and make such recommendations as seemed to them necessary to a readjustment of the matters complained of, and a recovery of losses incurred, if any.

5. The committee devoted a large portion of its time during the first three days of its session to a discussion of the grades and prices of wheat in which Mr. Hoover and members of his staff, with representatives of the Grain Division and the Bureau of Markets of the Department of Agriculture, participated. Practically all of the recommendations of the committee were provided for in the final draft of the announcement issued July 1.

A subcommittee had formulated an expression of suggested explanations of terms and conditions that were thought to be helpful in giving the farmer a clear understanding of the regulations and his personal status in their administration.

These suggestions were heartily indorsed by the full committee and the Food Administration.

6. A resolution was passed giving indorsement of the plan of the Bureau of Animal Industry for stamping out tuberculosis in cattle. Suggestions were made that some of the plans might be slightly modified in the matter of facilitating the disposition of tubercular animals.

7. WHEREAS the Department of Agriculture has submitted for our consideration a proposal for the elimination of certain less essential types or designs of farm machinery and parts thereof, giving as a reason therefor that because of the war