

times profitably go into invention, and use patents to recoup royalties from the other cities and States that would copy their new ideas. But they are not so minded, and such commercial inventive activities would be labeled socialism, and poorly handled by their political system; so they leave them generally to the more capable and universal Federal Government, and to private industry. Yet many of these activities belong peculiarly to State and local government, e.g., firefighting, sewage treatment, and education.

[226] Cooperative research and invention in the several fields, by associations of all the State governments, and all the cities, counties, engineering districts, and boards of education, would seem particularly appropriate, but has never been done except for a small amount of research, trouble-shooting and especially publication of the good novelties (created by others), through the service of voluntary associations with small dues and budgets. Such are the International City Managers Association, Council of State Governments, American Municipal Association, Government Research Association, American Association of Planning Officials, and various leagues of cities, and associations of county officials in each State. Here progress comes largely by imitation of the occasional successes achieved by small experimenters in local governments and private companies, rather than by well planned attack upon great problems, with outlays proportioned to the national or world need and to the apparent opportunity. The cooperative research and invention which our State and local jurisdictions decline to use to any large extent, but which the commercial companies use somewhat more, has been fostered in Great Britain by governmental subsidy of trade association inventing, and its great expansion will be proposed in ¶ 537.

SUMMARIZING THE FIELD FOR PATENTS

[227] The types of invention which patents most often fit are best defined in economic terms of the invention's difficulty, and of the owner's social need for protection against rival producers. One might say that patents are most needed by commercial producers subject to competition, on inventions having a large market outside the Federal Government, and perhaps in foreign countries through foreign patents. And the invention should be a valuable one, not a trifling detail, and difficult, but not so extremely difficult as the fundamental inventions, that will take many years to develop under present lack of assistance.

[228] The more patentable inventions can also be defined by field—they are mechanical, electrical, chemical, or bacteriological, rather than microbiological, medical, surgical, or in human skills, methods, mental operation, or social organization, though there are patents on complicated and novel apparatus for such human work. The inventions and discoveries for the use of the human mind and body are enormously important and frequent, but they are rarely patented nor patentable apart from remarkable new apparatus for such cybernetic exercise. Examples of such exclusions are a surgical technique, or a new ballroom dance, or a new method of predicting the weather, or solving any scientific problem.

[229] But and always, we should recall that inventions, discoveries, and other work not by itself patentable, may be paid for, and be patented indirectly, through patents on suitable inventions which occur as a joint product with unpatentable work.