

[442] Finally, our Government has made elaborate arrangements for the exchange of patent rights and technical information for defense purposes with our allies in NATO, ANZUS, and Japan.⁴²⁴ But these arrangements support invention only through patents under compulsory license and through sale of know-how, supports for the transmission more than for the origination of military inventions.

[443] Further fields for Federal decision and improvement are for the best ways to get military inventions into civil use (§ 436 & 521), and all other patent questions (§ 485-522).

[444] 2. STATE GOVERNMENTS. Their very small share in invention and its researches, aside from their support of universities, etc., 0.2%, seems hardly appropriate to enlarge, since there are no problems whose solution is needed by only one State. This is even more true for the States' subdivisions, the cities and counties. None of them have any inclination nor capacity to use the patent system to recoup their outlays from others' use.

[445] 3. UNIVERSITIES and colleges, proper, are something like 16 times as important in the dollar measure of their *performance*, as in their direct support of invention and its pertinent scientific researches, where we find them contributing only a half percent. Admittedly, of course, they perform invaluable functions of scientific education, library service, publication, propaganda for science, foreign contacts, providing a favorable *milieu* for associated institutes and commercial laboratories, and cultivating sciences often contributing to invention, including the biological, agricultural, geologic, legal, and social; this book could not have been written without the last.

[446] We see little hope nor need for increasing the universities' small cash contribution to invention and its researches. Palmer¹⁶⁰ would have them expand their inventive work, which employed 2,136 engineers and scientists,³⁸⁴ and their patenting (§ 452); Melman,⁴³⁸ on the contrary, argues at length that the abundant research now done by the universities on public and commercial contracts perverts the professors, students, and whole spirit of the university, from education and the pursuit of science for its own sake, to the goal of money-making for the firm, university, faculty, and even professor, and to secrecy in lieu of generous illumination of all. To the writer it seems that the proper functions for a university are not just teaching and such researches as no one else will pay for, but should include functions indefinitely numerous, such as serving national defense, political leadership, sick people, faculty children, providing wayward youth a safe home and recreations—any work that seems convenient and worth its cost, while ever recognizing that to do also B usually robs a part of A.

[447] 4. PROFESSIONAL SOCIETIES. The dues-collecting basis of these societies bars them from any large financial contribution to invention or science; but the vast competence which they enfold would seem to fit them for administering larger funds contributed by others, as they do in allotting most of the awards (sec. 12). Usually lacking laboratories, their performance is only two-fifths of their tiny contribution.³⁷⁷ Other helps they render researchers are recognition, appraisal, contacts (including international), publication, and standardizations of language, units, and devices.

[448] 5. TRADE ASSOCIATIONS. Here again we meet completest competence yet insignificant funds, a quarter percent of all for