(¶ 343); standardized transportation devices such as the combination of a special road with automatically guided autos (¶ 351); new trailer hitches, piggyback and truck-rail-ship arrangements (¶ 375); and standardized, universally reusable containers of many types and sizes. Finally, most suitable for Government would be the greatest goal of all, the supreme invention, the key to the key-rack—*improvement of the art of discovering and inventing* (¶ 457).

[438] In more general terms, and on the whole, things which can be sold to private users for their full social value were best invented by commercial industry and protected by patent if feasible. But where the buyers are the Government, or people whose individual benefits (at least by their own valuation) add up to less than the total social benefit, as with inventions to protect against pests, pollutions, sickness, accidents, ignorance, crime, military attack, or economic losses not imminent but distant (as with waste of natural resources); or for inventions calling for too long development for 17-year patents or other commercial incentives—or for scientific discovering without having to show in advance a likely early practical benefit from each line of inquiry—or for inventions which would need the authority of Government to change a standardization (mostly in communication and transportation)—or for inventions which would seem proper for the private inventors but which for some reason these have failed to provide us (like clear fused quartz, or a safe automobile lock)—in briefest words, for all those researches which society needs but which no firm can be well paid for making, here where private enterprise fails other institutions should be turned to, oftenest today the Federal Government, usually engaging commercial or university laboratories to do the finding, and sometimes allowing them patents on nongovernmental uses. The legislative history of governmental assistance is told in Study 22.[432]

[439] When Government supports invention it is almost always to achieve an envisaged purpose, usually in Defense; hence the research is organized according to this function, whether carried through in the Government's laboratory, or oftener farmed out. But there is another type of project which is started by an outside inventor or some group, and brought to the Government begging assistance; it may be a minor development or a great fundamental idea, the base for a new industry (ch. 8). Here it may find a *little* assistance from one U.S. bureau for all kinds of outsiders' inventive projects, the minor million-a-year Office of Technical Services told of in ¶ 383; or more important is the National Science Foundation, which allots to professors, etc., in physical, mathematical, and engineering fields 51% of its basic research funds, and budgets $263 million in all.[433] In Britain we find the National Research Development Corporation,[434] which now holds 3,000 patents and patent applications, more than one-third of them under active exploitation, their profits shared with the inventor. Among their inventions are *frozonic* milk which keeps flavor indefinitely, through ultrasonics and freezing, the Hovercraft, fuel cells, and long, floating bags to replace tanker barges. France has had since 1915 the Centre National de la Recherche Scientifique, covering all the sciences, with a budget of $29 million, of which $220,000 is for the Service des Inventions et Brevets. Thirty-one contracts were made with inventors, some sharing the profit from patents or sales of know-how, and 28