partly new, *ad hoc*, partly standard product, and the proper reward for each is just enough money and other psychic income to recruit enough and good enough workers for that profession, according to the conditions of the labor market and the principles of economics, including the actuarial principle that where many failures are unavoidable, the prizes must be correspondingly augmented. We have still to answer the questions of how the award should be paid (e.g., by a salary, or by the gamble of a patent), and by whom to be paid.

[153] Our intelligent objector may still not be satisfied that the hiring of inventors can guarantee in advance the production of inventions to fulfill specifications, the same as designers and architects can promise the outcome of their work. One might cite dicta that nearly all inventive ideas fail, and that even among inventions that look so good as to be patented today, 40% are never exploited.[132] True indeed. Yet further economic principles, about actuarial worth, or the reckoning of chances, may be adduced to save our principle. An architect may not turn out the house expected, but something different, as good, or better. A physician may not produce the expected diagnosis and cure, yet do all the better; or he may even fail badly, yet it was wise to engage him, at his standard rate per hour, and take our chances on his achievement. An inventor engaged to solve a particular problem is very apt to invent something else good instead—or to fail fully; yet actuarial economic principles justify hiring him, and at a rate determined by his time, brains, and scarcity, not by his product, the unpredictable outcome. And now if we engage not one inventor, but several, or several hundred, as in the governmental and corporate laboratories, and assign to each not one problem but many over the years, the statistical principle of large numbers will refine our chance-taking into the regularity and near certainty of ordinary industrial activity. Both chance and the individual disappear, and economic or military gains appear, predictable in value if not fully in nature; and whether patents figure or not, the proper and inevitable reward of the inventors becomes determined in the same way and with the same certainty as with the other professions. To be sure, patent values are less predictable, and therefore frequent excessive rewards are needed to counterbalance the deficient ones.

[154] Since rewards are sufficient and effective in proportion to their appeal to the worker, and various rewards are possible for inventors, not just patents, suppose we were to ask them what they prefer. The better ones, the salaried engineers and chemists, reply: Give us a good salary, whether from industry, Government, or what source, we do not care, and good working and living conditions. Patents, or a small chance at big rewards, we don't want; let the employer take the chances, patents, profits, losses, and manifold worries; what we want is a good job, promotion according to how productive we seem likely to be, and some credit, and often a fixed nominal fee of $1–$100 for each patent.[192] To be sure, 40% of those replying to Rossman's questionnaire said they would be encouraged to produce more inventions by more cash payments, bonuses, and royalties.[192] But who would not like a bonus, such as a thin slice of profits if any, and say he would do more for it? *Demanding* such terms is another matter. So these salaried inventors assign in advance to an employer patent rights they might have kept—had they the big money, the gambling disposi-