

for are never issued. Next, three-fourths of those issued and sued on to a judgment are destroyed. We calculated in ¶ 146, that very few of the patenting proposals which get as far as a patent attorney's office, ever eventuate in a defensible patent, indeed four-fifths never get a patent. A patent might be litigated and upheld and still not pay for itself, though it probably would if it were so egregious a patent and invention as to pass all those hurdles that only some much less than 9% of started inventions ever survive. If the patent be *not* sued on and upheld you can hardly know for sure that it had been worth taking out; though if the invention has been worked, and its patent seem strong, and it has been used to threaten would-be infringers who then desisted, one might well infer that this patent rendered returns. In the other cases, probably the majority, the patent probably served no very profitable purpose (¶ 407); for no one needs a patent to practice his own invention. The commercial profitableness of patents is chiefly based on the actuarial value of a few payoff cases, some of which yield great rewards, though probably the majority yield no net profit. Patenting is the most aleatory of all commercial gambles, comparable to buying a ticket in a lottery.<sup>249</sup> Frost says "Any industry position based upon patent rights is most precarious."<sup>250</sup>

[249] If the possible patent payoff were the only reward in prospect to inventors, the patent institution would probably shrink greatly. But there are many other reasons for inventing, and even some other minor motives for patenting. So invention continues its swift expansion (cf. charts 1 and 4), while patents lag, as byproducts, ever more so, of the invention industry. The freelance inventor still depends on them, but to most great corporations they are something of a bonus, a lottery ticket which may, if the invention looks well, be bought at small expense (compared to the total cost of making and introducing the invention), a ticket which will like as not pay some reward, and possibly a bonanza. There is also the gambling instinct in some men, and excessive optimism in many.

[250] From the social view, as contrasted with the above commercial view, the usefulness of patents is sometimes wider, sometimes narrower. For they may repay society though not the patentee. When they lure inventors to do useful contriving, the social gain may be real however vain and frustrated the inventor's hopes, and whether or not he gets a patent. Inventors, at least the old freelance kind, are notorious for overestimating the future value of their own work. Patents may give a real, social value to a pot of gold at the other end of a rainbow.

[251] Another consideration, mentioned before, is that the aleatory character of patents disappears the more of them are amassed together in the portfolio of a great corporation, by the principle that large numbers even out chances. And transferring the burden of risk from the personal inventor to a corporation which salaries him, on condition of his assigning all patents to it, is a great help, not only from the principle of large numbers but because the serious inventors, mostly engineers and chemists, have neither the capacity nor the bent to engage in wild and long-range inventional speculations.

[252] 5. *Delayed remuneration.* This related defect of patents is hardly ameliorated by large numbers, is helped by the stout treasuries of great corporations, but remains perhaps the most serious shortcom-