some vague proportional relation to the service he rendered. Finally the patent system is itself not exclusive or monopolistic, in the way that governments, religions, and marriages can tolerate no rivals. Patents exist side by side with, or cooperate perfectly well with their rival institutions—unpatented inventing, government inventing, awards, patent pools, or monopolies, which reject, or change the significance of patents. And so the rival institutions have for the most part replaced the patent system, as we shall prove, so quietly that hardly anyone realizes what has happened.

PATENTS COME TO BE CRITICIZED AND CANCELED

[38] The patent system is accepted throughout the world, as we have said, save naturally in the so different economic *milieu* of the Soviets. There it is replaced by a system of awards to inventors, and by government inventing chiefly of course, and by the mere name of patents, a ghostly remnant latterly emphasized, and by a special government organ to stimulate the use of new inventions. In western Europe a wave of protest against patents arose [18] at the height of the *laissez-faire* period about 1865, which led Holland to abandon the whole system from 1869 to 1910. Sentiment critical of the system, but never proposing its abolition, has grown up in America since about 1910, coincident with the rise of modern economic liberalism and opposition to monopoly, and especially right after the Temporary National Economic Committee's inquiries of 1941. The movement has produced insistent proposals for such changes as compulsory license of patents, and hearings, bills in great number, and two or three commissions of inquiry. But no reforms of importance have yet been enacted, nor many legislative changes in our patent law of 1836. What amendments have been made in these 127 years have been mostly of minor, technical, procedural nature, or gave up substantive additions to the patent law of 1474, as aforesaid. Some legislated changes to be mentioned are that all patents of Federal or (at first) of atomic significance have been made subject to expropriation, which amounts to compulsory license; and there has arisen an expanding use of declaratory judgment proceedings.

[39] What really important changes have come in the patent system, aside from its wholesale replacement by the rival institutions, have come not through legislation, nor administrative order, nor by voluntary action of the professions, Congress or political parties, but have been forced upon the system by the Federal courts in recent years, in the modern atmosphere of opposition to monopoly. We refer not only to the system of compulsory license which the courts have lately been establishing in successful antitrust and misuse cases [19] (sometimes with free licenses as a heavier penalty), but also to the courts' growing habit of throwing out individual patents, so that now only a one-fourth minority survives a full court test. Table 2 and Federico's studies [20] show how, among patents litigated to a contested and published decision, the percentage destroyed has gone from 62.3 to around 75 in 1948–54.[21] Still another study,[22] from 1938 court

[21] Considering that a large part of the patents from the district courts were appealed, we have given equal weight to the percentages of the lower and the appeal courts. Federico's study, N 20, prepared at the request of the Senate Subcommittee on Patents, provides numerous tables, covering the courts of appeal and the Supreme Court from 1925 to 1954, in some ways better than our own table. Other data are in the Subcommittee's *An Analysis of Pat. Literature Stat.*, ftN 269.