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# GOVERNMENT PATENT POLICY AND THE NEW MERCANTILISM

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The practice of some Government agencies in giving patents of monopoly to private contractors on the results of publicly financed research and development suggests a similarity to the type of economic system, namely, mercantilism, which existed in England before the establishment of what we call the free, competitive enterprise system. The aim of this article is to show the close similarity of the present system to certain features of the mercantile system. It would not be improper to call our present system the new mercantilism or neomercantilism.

Research and development, the production of new scientific and technological knowledge, is the fastest-growing industry in the United States. It could be the largest single contributor to the increase in our national output. The introduction of new technology can mean construction of modern plants, the installation of more efficient equipment, and the employment of more workers. And yet, never has so much money been spent by the Government with so little consideration for its ultimate social and economic consequences.

# GOVERNMENT CONTRIBUTION TO THE NATION'S R & D

Of all the production of new scientific and technological knowledge in our society, the people of the United States through their government pay for 70 per cent, according to the latest figures available. The Federal Government now spends more for research and development each year than it did for a total of all years from the American Revolution through the end of World War II. In fact, we now spend an average of about \$35 million a day in fiscal 1963 and about \$41 million a day in fiscal 1964, which is more than was spent in any one year before the military effort during World War II.

There is good reason to believe tha the public's stake in total R & D is ever greater than 70 per cent. The reason for this is that industry in many cases is merely reclassifying traditional outlay in terms of the now fashionable "re search and development" effort. A good illustration is the development of nylon the cost of which is claimed to be abou \$1,960,000.1 Included in this figure i \$782,000<sup>2</sup> for sales development. Ther is no reason to doubt that included i industry's 30 per cent of R & D ar large sums for such purposes as sale development and promotion and marke research. This means that the privat sector is paying a smaller share tha the published figures indicate, and the public is paying a much greater shar of actual research and development the the 70 per cent mentioned before—pe haps even as much as 80 per cent.

Since the Government is the maje contributor to the development of ne scientific and technological knowledg the policies regarding the disposition rights arising out of work done und government contracts will inevital

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have a serious effect on the growth and the competitive structure of the American economy in the years to come.

## GOVERNMENT PATENT POLICY

The United States Government's research and development efforts are massive. In fiscal 1963 about \$15 billion was spent in this field with considerable scientific and technical knowledge being generated. The results of this great public effort are largely being handed over to the giant corporations that receive the bulk of the funds. Other companies the smaller ones—and other industries which might put this new knowledge to good use, perhaps in unforeseeable as well as entirely expected ways, are effectively denied use of the new scientific and technical information being developed. What is even worse is that many of the discoveries that are being made each day—both major and minor ones —are not being exploited by anyone at all, not even those corporations which have received them as gifts from the government.

Although Government patent policies vary in accordance with the contracting or department, the amount of funds comes from the Department of Defense. The policy of the Department of Defense consists of giving to the contractor patent monopolies on inventions or developments resulting from publicly financed research. policy is also being adopted in large measure by the National Aeronautics and Space Administration by administrative regulations, even though the apparent intent of the National Aeronautics and Space Act of 1958 was to give title to the contractor only in exceptional cases.

A contractor's retention of title to inventions resulting from the performance of a contract has never been normal

other firm does not receive title to such inventions as he might develop in performing the contract. The party that hires him determines which, if any, of these inventions should be patented, and titles to any patents issued are assigned to that party. The idea that a research contractor should acquire for himself the right to exclude others from the use of such an invention is itself a rather interesting invention.

#### MERCANTILISM

Mercantilism is the name given to the economic policies of Europe between the Middle Ages and the development of free, private enterprise or the system of economic freedom. Although ideas on the balance of trade and the significance of money occupy a central position in mercantilism, the establishment of monopolies was a very important part of the system. Of these monopolies the external ones attracted the most attention, although the internal monopolies included a greater variety of objectives and greater complication of motives.

There were many reasons for establishing monopolies under royal sanction, but the principal one probably was that it was hoped that it would be the means of encouraging new or weak domestic industries. In addition, the fewer the productive units the easier it was to control the economic activities of the nation, for the dominant interest of the national state was to assert the right of the state to regulate economic affairs.

Before the middle of the 16th Century the industrial patents granted in England were merely promises of protection to foreign workmen as an incentive to introduce new arts, especially those connected with the clothing trades. The practice of early Tudor monarchs, in encouraging the introduction of new arts, was to attract skilled artisans into their own service. In this way German

makers, and French iron-founders were induced to establish new industries in England with the hope of royal patronage.

Queen Elizabeth tried to foster a system of national regulation and to stimulate new industries by increasing the extent and effectiveness of the monopolies. The period covered by the reigns of Elizabeth, James I, and Charles I was actually not the beginning of industrial monopoly: whereas heretofore monopolies had been granted on a local basis, in this period the system of royal monopolies was an attempt to reconstitute them along national lines.

### PURPOSES OF MONOPOLY GRANTS

The numerous and varied monopoly grants by the Crown cannot be explained by any single motive. The desire to encourage invention, financial considerations, and the desire to reward her servants and favorites must all be considered as influencing the monopoly policy of Queen Elizabeth. Originally, the encouragement of invention was regarded as one of the chief public con-As the years passed, however, consideration had diminishing weight in patent policy. The patents of monopoly or privilege were usually granted as a result of a petition on the part of someone who had a selfish interest in the grant. In addition, a petitioner was more certain of success in getting a grant if he could show that central control of industry would result from his privilege.

An interesting fact about the monopoly grants is that it was the monarchy that created them—contrary to the common law—but the justification given was that these monopolies existed for the preservation of "good order and government." The justification the days is exactly the same, although the words "in the public interest" are d ferent. In addition, it was the parli ment that fought against monopol Monopolies were considered contrary the traditional rights of every Englis man. In our own day it is the Congre which plays this role. Whenever Co gress has legislated on this subject, ti generally went to the public, the priva corporation getting exclusive rights or in exceptional cases. This is illustrat by specific legislative provisions relati to the Tennessee Valley Authority, E partment of Agriculture, the Aton Energy Commission, and the Nation Aeronautics and Space Administratic Recent legislation includes the Coal R and Development Act,3 t Saline Water Act,4 the Arms Conti Act, the Helium Gas Act and othe It was only when the law was silent the the executive branch of the governme granted monopoly rights to private p sons. Both the Department of Defer and the Department of Commerce a good examples of this. Furthermo the National Aeronautics and Space A ministration, taking advantage of a pi vision in the law allowing it to gra monopolies when it believed that it v in the public interest to do so, found in the public interest to waive title or wholesale basis. A recent example NASA's enthusiasm in granting mone oly privileges is the granting of its fi exclusive patent license for a seven-ye period. What is especially significate about this example is that the inventiwas a product of a government employ

During the 17th Century, when state issued patents of monopoly privilege, the state shared in the prof

working in a government installation.<sup>1</sup>

<sup>\*74</sup> Stat. 336 (1960), 30 USC 661.

<sup>&</sup>lt;sup>6</sup>75 Stat. 628 (1961), 42 USC 1951. <sup>6</sup>75 Stat. 631 (1961), 22 USC 2551.

The monopoly was employed by its owner to demand higher prices than he would have been able to get otherwise. The system thus involved an indirect taxation of goods—both consumers' and producers'—in the financial interests of the state. It was an indirect taxation of consumption by means of a monopoly, not in the hands of the state, but wielded by private individuals.

Similarly, under a large part of U.S. Government patent policies the public is first taxed to pay for the research and development on the grounds that such research promotes the general welfare, and then the public is taxed again through monopoly profits when it purchases or uses the commodities embodying the research and development it originally paid for, which amounts to public taxation for private privilege. Contrary to the practice of the 17th Century, however, the state in our day does not share in the profits. The private corporation pockets the whole thing.

# Some Results of Government-Created Monopolies

By the end of the 1650's there was an extreme antimonopolist tendency. Monopoly was regarded as "a cause of all dearth and scarcity in the Commonwealth" and as being opposed to the nature of society and the development of cities the aim of which was "to live in plenty and cheapness."

An illustration of the results of a Government-created monopoly is the complaint against the Newcastle Coal monopoly in April 1650 by the Lord Mayor of London. He stated that as a result of the monopoly the price went up from 4 shillings to 9 shillings, but even worse was that the buyers had to take both the

good and bad "cole" together. The monopoly created a "scarscitie as mae best serue for theire advantage, Albeit the said mynes will afforde great plentie without feare of future want of the commodite."<sup>8</sup>

A good example of cloaking the private interest with the interest of the public is to be found in a 1591 petition of John Thornborough, Dean of York, for a patent grant to control the export of coal and to levy a duty. The justification given was that the best coal was being transported from London, a practice which should be discontinued for the benefit of all. It was seen, however, that this amounted to a "generall restrainte of transportinge of all manner of coles" and that what was really wanted was that "none shalbe transported but by my lycense."9 In other words, good coal can also be transported if a fee is paid.

The Mercantilists, nevertheless, talked about freedom of trade and a harmony of interests, but these sentiments were not always taken literally by them. It was generally a question of beautiful phrases ready at hand to serve some particular interest or other. Their outlook was not free from contradiction or confusion. For example, the Mercantilists were interested in increasing trade in general and foreign trade in particular, and yet they were continually striving to obstruct imports.

This confusion of ends is not absent in the present-day patent policies of agencies of our government. For example, on the one hand, it is the stated purpose of the National Aeronautics and Space Administration to make more widespread the use of developments financed by the public. This is done, however, through the granting of patents

<sup>&</sup>lt;sup>6</sup> Complaint of the Lord Mayor of London against the Newcastle Coal Monopoly, c. April 1500. Tawney Tudor Economic Documents 268 (1924).

of monopoly to private corporations which would enable them to restrict the use in order to control prices and profits. Besides, there is no assurance that the development will be used at all. All this is done supposedly in the interests of the public.

The coal monopoly in the 17th Century was also granted in the public interest, but it didn't turn out that way:

of parliament that first was deuised for the reasonable helpe and maintenaunce of the said Towne, but directed in deede to the publique good of this whole Realme, is now peruerted and abused by them to the immoderatt gaine of the said Towne with the hurt and prejudice of this whole Realme.<sup>10</sup>

The evil features and abuses of the monopolies owed their origin to the importunities of influential people close to the Crown. Although Queen Elizabeth was not very anxious to part with her treasure, she was willing to bestow valuable patents on her pensioners, favorites, personal servants, petty officers, and clerks. Grants to the servants of the Queen's household and to clerks were conferred in lieu of salaries. This aspect has been brought over to the 1960's in government patent policies. One of the arguments advanced by those who favor liberal grants by the government of patents of monopoly or privilege is that the profits as percentage of the contract price are not as high as they would like them, and hence the monopoly grants serve to make government-financed research and development more attractive.

The patent for the manufacture of white salt, which was assigned to

Thomas Wilkes on 20 February 15 was typical; it was a reward for his so ice and was the principal part of maintenance. "... the system of mopolies, designed originally to fo new arts, became degraded into a sys of plunder." <sup>11</sup>

A great hue and cry was raised aga the monopoly on salt as an infringen on liberty not to be able to buy and salt wherever anyone wished. It regarded as contrary to the rights of freeman to prevent anyone from overting his salt pit to its best use. typical complaint was that: "The P of salte is raysed by the Lycence. It the assignes have taken excess gaines." 12

DEBATE ON MONOPOLIES IN 160

In the debate on monopolies in House of Commons in 1601, Sir ward Stanhop informed the House the great Abuse by the Patentee for in his Country, "that betwixt Mich mas and Saint Andrews tide, where was wont, before the Patent, to be for Sixteen pence a Bushel, it is sold for Fourteen and Fifteen shill a Bushel. . . ." 18

It was also revealed that the issue of Patents of Monopoly resulted i large increase in the prices of comm ties and in large decreases in their q ity. Steel, which had sold at "Pence Half Penny the Pound before Patent, it is now Five Pence the Pound where Two Thousand Poor pewere maintained, by working of S and Edge-Tooles and might well live Working thereof at Two Pence F. Penny the Pound, they are now not a by reason of the Price thereof, to who but now many go a Begging, becathe Faggot hath also less Weight, to

" Price, The English Patents of Monopoly 17 (1913).

<sup>&</sup>lt;sup>10</sup> Complaint of the Lord Mayor of London against the Newcastle Coal Monopoly, c. 1 1590; id. at 267-71.

utter undoing of all Edge-Toole Makers." 14 In the case of steel, apparently, the consequences of granting the patent of monopoly was to raise the price considerably, thus reducing the amount of the commodity demanded and increasing the unemployment of many laborers.

What was true for steel was also true for starch, playing cards, stone bottles, pots, brushes, glasses, beer, vinegar, and

many other commodities.

## PROCLAMATION AGAINST MONOPOLIES

Queen Elizabeth had granted many patent privileges and licences hoping they would tend to the common good, or, as we say it now, advance the public interest. The monopolies did not have this effect, however. Instead, the grants were abused "to the great loss and grievance of the people." On November 28, 1601, therefore, the Queen issued "A Proclamation for the reformation of many abuses and misdemeanours committed by Patentees of certaine priviledges and Licences, to the generall good of all her majesties louing Subjects." The effect was to

. . . further expresly charge and command all the said Patentees and all and every person and persons, claiming by, from or vnder them doe not at any time hereafter presume or attempt to put in use or execution any thing therein contained vpon paine of her Highnesse indignation, and to bee punished as contemners and breakers of her royall and princely Commandement.15

The above proclamation was issued against the more obnoxious of the patent monopolies. Those that remained were left to the common law free from any clause of restraint thus entrusting to the courts of the law the responsibility of

deciding what grants should be allowed to stand.

## THE FREE PRIVATE ENTERPRISE SYSTEM: A REACTION TO MERCANTILISM

The great contribution of the classical economists was their vigorous attacks on the mercantile system and their advocacy of what has been called the system of economic freedom. Adam Smith called monopoly the sole engine of the mercantile system which had a pernicious effect on society. The regulator of the marketplace was to be competition, which would prevail if supply positions were not licensed or made the subject of exceptional privilege. The free private enterprise system was based on the doctrine of self-interest within a competitive environment. The classical economists did not think that government interference was necessarily justified by superior knowledge on the part of the government.

Government restrictions, according to Smith, were injurious, doing harm where they sought to do good. They prevented the free flow of capital and labor from less advantageous to more advantageous employments. The solution was to be found in economic freedom:

It is thus that every system which endeavors, either by extraordinary encouragements to draw towards a particular species of industry a greater share of the capital of the society than what would naturally go to it; or by extraordinary restraints, to force from a particular species of industry some share of the capital which would otherwise be employed in it; is in reality subversive of the great purpose which it means to promote. It retards, instead of accelerating, the progress of the society towards real wealth and greatness; and diminishes, instead of increasing, the real value of the annual product of its land and labour.

All systems either of preference or of restraint, therefore, being thus completely taken away, the obvious and simple system of natural liberty establishes itself of its own accord. Every man, as long as he does not violate the laws of justice, is left perfectly free to pursue his own interest his own way, and to bring both his industry and capital into competition with those of any other man, or order of men. The sovereign is completely discharged from a duty, in the attempting to perform which he must always be exposed to innumerable delusions, and for the proper performance of which no human wisdom or knowledge could ever be sufficient; the duty of superintending the industry of private people, and of directing it towards the employments most suitable to the interest of the society.16

A series of writers developed Smith's ideas. John Stuart Mill, although admitting the possible validity of the formal argument for giving incentives and protecting new industries, stated that the older he got the more shocked he became at the uses to which this argument was put. He confessed that:

I am now much shaken in the opinion, which has so often been quoted for purposes which it did not warrant, and I am disposed to think that when it is advisable, as it may sometimes be, to subsidize a new industry in its commencement, this had better be done by a direct annual grant, which is far less likely to be continued after the conditions which alone justified it have ceased to exist.<sup>17</sup>

#### Conclusions

A study of many documents from the mercantile period in England (and in France) reveals innumerable close similarities to present-day governments policies concerning the establishment of monopolies.

The practice of many agencies of government of handing over to private corporations patents of monopoly of privilege on the results of public financed research parallels in many way governmental policies in England (an other European countries, too) during the mercantile period. The system economic freedom was a protest again this system.

The essential achievement of the sy tem of economic freedom or the freedom or the freedom that it had an eye on the human, an outloof poles apart from mercantilism. Towar the end of the 18th century, there was growing humanitarian spirit, although took almost a whole century for the spirit to be embodied in legislatic Nevertheless, it was one of the power forces which undermined the mercant ist system.

At present our system has two pects: one pointing to economic fredom and the other to its precise of posite. An indication of our devotion the system of economic freedom is interest in the consumer, weak thou it may be, and the tendency to ma private interests serve the interests the community.

This tendency fades into the ba ground behind the policies of establiing and extending monopolies througrants by the government. The recestablishment of a private monopoly space communications is another ample of this tendency. The talk ab conomic liberty and competition apears to be music lingering from the

One of the areas where our presentary system and mercantilism resemble ach other is that, in practice, both to a urge extent deny that consumption is le ultimate end of economic activities and that production is only a means to lat end. Mercantilism was characterzed by the view of production as an end itself. It was dominated by a regard

for different groups of producers, forcing consumers to make the most of whatever consequences follow from these considerations.

If this comparison elicits the reply that the national interest requires monopoly grants as a necessary stimulation of enterprise, the question arises whether the price we are paying is far too heavy even if the means could secure the end, for involved is the sacrifice of the citizens' economic freedom.