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H.R. 1028—COMPUTER CHIP COPYRIGHT

HON. HAMILTON FISH, JR.

OF NEW YORK

IN THE HOUSE OF REPRESENTATIVES

Tuesday, October 18, 1983

● Mr. FISH. Mr. Speaker, I recently became a cosponsor of H.R. 1028, the Semiconductor Chip Protection Act of 1983. This bill provides needed protection against chip piracy for U.S. manufacturers of semiconductor chip products.

The semiconductor industry is a vital and rapidly growing part of the U.S. economy. The Bureau of Industrial Economics of the Department of Commerce forecasts that in 1983 the industry will ship more than $12.2 billion worth of semiconductor and related devices, a substantial increase from the $10.5 billion 1982 value of shipments. It is projected that in 10 years the semiconductor market will have sales of more than $90 billion, thus becoming one of the world's most important product markets and the basis for computers and telecommunications, two out of the four major industries of the 1990's.

As the level of complexity of semiconductor circuits has grown, so has the cost of creating new chip designs to embody those circuits economically and efficiently. In recent testimony during hearings on August 3 before the House Judiciary Subcommittee on Courts, Civil Liberties and the Administration of Justice, an industry spokesman noted that the research and development costs for a single complex chip now can cost approximately $5 million, while related support and development costs for that chip could amount to another $50 million or more. These increasing cost factors have both made the return from piracy to would-be chip pirates and made the cost of their piracy greater to legitimate chip manufacturers. The net effect of chip copying is to sharply curtail the normal recovery period during which an innovative chip manufacturer can recoup the research and development costs that the manufacturer invests in creating a new chip and putting it on the market. Unless investments in chip creation can be recovered, fewer and fewer companies will make the research and development investment necessary for advancing chip technology. Instead, more and more companies will engage in chip copying to the detriment of the worldwide technological competitive edge of the United States.

There are no effective legal means at this time to stop chip piracy. Protection for chip layouts under the patent laws is not available, as a practical matter, despite the fact that creativity in devising these layouts is a critical factor in reducing manufacturing costs. Protection under existing copyright law is also not available for chip designs, because the layouts of chips are utilitarian in nature. Under existing copyright law, utilitarian objects cannot effectively be protected, even though their creation may involve great creativity and be of considerable economic value.

Legislation has been introduced in both Houses that goes a long way toward eliminating chip piracy by providing copyright protection. The chairman of the Subcommittee on Patents, Copyrights and Trademarks of the Senate Judiciary Committee has introduced S. 1201, and my distinguished colleagues from California, Messrs. EDWARDS and MINETA, have introduced H.R. 1028. This legislation provides a 10-year term of protection for the layout of chips and at the same time protects innocent good-faith purchasers of these products. It recognizes a new kind of copyrightable work, "mask works," and provides protection specifically devised for such works.

It is of great importance that this Congress promptly enact legislation protecting semiconductor chip designs. Such legislation, should have the following characteristics:

First, it should accord prompt, inexpensive protection to original semiconductor designs, through a registration system similar to that now in effect for books, pictorial works, and motion pictures. It is essential to have a system that permits rapid securing of protection, without an expensive examination procedure or other high front-end costs. This can best be accomplished by amending the existing Federal copyright laws to cover chip layouts. H.R. 1028, which amends the existing copyright laws for this purpose, is the most efficient and expeditious legislation for creating such protection.

Second, the protection should grant the owner of the chip design the exclusive right to commercially copy and distribute the new chip. H.R. 1028 has such a provision.

Third, the protection should have a relatively short term, such as 10 years. H.R. 1028 provides such a term.

Fourth, there should be an express right of "reverse engineering" chips for the purpose of teaching, analyzing, and evaluating the chip. This is recognized in the industry as a legitimate practice and should be safeguarded. However, reverse engineering should be appropriately defined so that a claim of reverse engineering will not become a pretense for piracy. At this time, H.R. 1028 does not directly address the question of reverse engineering.

Fifth, provision should be made to safeguard the interests of innocent infringers and the public. For example, it is inappropriate to allow injunctions or drastic forms of relief against innocent infringers of chip copyrights. H.R. 1028 expressly provides against that.

Proposed amendments to this legislation have been circulated in the other body, and have been commented on favorably by several witnesses at an August 3 hearing before the House Judiciary Subcommittee on Courts, Civil Liberties and the Administration of Justice. These amendments would specifically guarantee the right of reverse engineering for teaching, analyzing, and evaluating chips; make the legislation wholly prospective in operation, while at the same time creating "grandfather rights" for persons marketing chips before January 1, 1980; insulate rights under existing copyright law for other works from any diminution or alteration; and limit the exclusive right of the owner of a copyright relating to chips to the manufacture and distribution, but not the use, of the protected chips. These proposed changes would bring H.R. 1028 into accord with the matters that I discussed above, and I fully support H.R. 1028 with these proposed amendments. However, I want to emphasize that I am not wedded to any particular form of language and remain open to suggestions for further improvements in this needed legislation from industry and other concerned parties.

I note further that this legislation would create no new Federal bureaucracy and would cause no revenue loss to the Government. The legislation is commendably narrow in focus, and is restricted to a specific kind of new high technology. It therefore does not raise general and possibly controversial questions that legislation of broader scope could raise. The narrow focus of the legislation avoids opening the bill up to the addition of possibly controversial amendments as to other kinds of commercial or industrial works.

I support this legislation as a salutary step in expanding the two century-old Federal copyright system to bring it more into accord with modern technology and the current needs of the business community. I believe that it is essential that our copyright law should grow with the needs of the times. By appropriately tailoring the new rights and remedies that we create to the needs of industry and the public, we can breathe new life into copyright law and intellectual property law as a whole. I believe that H.R. 1028 is a needed step in that direction.●