



**Diamond v. Chakrabarty, 100 S.Ct. 2204, Jun 16, 1980.**

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**Issue**

Whether a live, human-made micro-organism is patentable subject matter under section 101 of the Patent Act.

**Holding**

Yes, a human made microorganism is patentable under section 101.

**Case Facts**

Chakrabarty discovered a process by which four different plasmids, capable of degrading four different oil compounds, could be transferred and maintained stably in a single Pseudomonas bacterium, which itself has no capacity for degrading oil. Chakrabarty's patent claims were of three types: first, process claims for the method of producing the bacteria; second, claims for an inoculum comprised of a carrier material floating on water, such as straw, and the new bacteria; and third, claims to the bacteria themselves. The patent examiner allowed the claims falling into the first two categories, but rejected claims for the bacteria on two grounds that micro-organisms are "products of nature," and that as living things they are not patentable subject matter under Section 101. On appeal, the Court of Customs and Patent Appeals reversed the decision of the examiner by holding that living status of a microorganism has no legal significance for purposes of Patent Law. Supreme Court granted Certiorari and held Chakrabarty's Pseudomonas bacterium to be patentable.

Applicable Law: Title 35 USC Section 101: Inventions patentable: "Whoever invents or discovers any new and useful process, machine, manufacture, or composition of matter, or any new and useful improvement thereof, may obtain a patent therefor...".

## **Analysis**

Congress plainly contemplated that the patent laws should be given wide scope by choosing expansive terms like "manufacture" and "composition of matter," modified by the comprehensive "any," under Section 101 of the Patent Act. The only exceptions to the scope of patentable subject matter are laws of nature, physical phenomenon and abstract ideas. In the light of Section 101 Chakrabarty's bacterium is patentable subject matter as it is a nonnaturally occurring manufacture or composition of matter and a product of human ingenuity "having a distinctive name, character and use.

The enactment of special laws to protect sexually and asexually reproduced Plant Varieties does not in anyway alienate living organisms from the scope of patentable subject matter. The question to be considered under section 101 is not whether the invention is living or inanimate but whether it is a product of nature or human made. As the bacterium in the present case is a result of human ingenuity and not the outcome of a natural process, it is patentable.

Though the Congress might not have foreseen genetic engineering when it enacted section 101. The section on its face doesn't exclude inventions that result from genetic engineering to be patentable. Such an exclusion cannot be read into the section by the courts. If any exclusion has to be introduced into section 101, it should be done by the Congress and not by courts.

Though issues relating to dangers inherent in genetic research are noteworthy, the courts do not have the competence to decide or act on such issues. The court's role is to only interpret the words as they exist in the law.

## **Dissent**

The enacting of Plant Protection and Plant Variety Protection Acts strongly evidences a Congressional limitation to patenting living organisms. Such enactments wouldn't have been passed if living plants would have been patentable without a new legislation. The Acts indicate that Congress intended to exclude living organisms from patentability. It is the role of Congress and not Courts to broaden or narrow the reach of patent laws.