

# The birth of the pill

From a beginning in infertility research, a bold conception

**T**homas Edison once defined "invention" as the "bringing out of secrets of nature and applying them for the happiness of man." The inventors of the birth-control pill probably would have agreed with Edison, although — given the feminist orientation of those directly involved — they likely would have edited his text to read "happiness of woman."

In "The Pill: A Biography of the Drug that Changed the World," award-winning writer Bernard Asbell gives us a detailed, colorful and fascinating introduction to the origins and first decades in the life of the oral contraceptive — its biological roots, its debut and the resulting societal ripples.

When we think of medical discoveries, we often conjure up the "Eureka!" caricature. The dedicated scientist works for decades, encouraged by his progress, plagued by his defeats, determined to succeed against all odds. Then one day — Eureka!

But that script does not fit the discovery of the pill very well. First, there was substantial perceived need for such a contraceptive for centuries before the drug came on the scene. Second, the oral contraceptive was developed relatively quickly — but only because of related research that had gone on for decades before the pill itself emerged. Third, those who played the role of "mother" and "father" to the pill were really less parents than facilitators of the developmental process.

Finally, this drug entered our world without much consideration given to the resistance it might receive — and without much regard for the profound societal and behavioral consequences that inevitably would be attributed to it.

Mr. Asbell offers an excellent historical review of methods of birth control, confirming that the perceived need was hardly limited to the 20th century. He describes well the wrenching emotional, physical and financial consequences of the average woman's almost complete lack of reproductive control during the first half of this century.

We learn, too, of crude attempts at self-abortion that frequently resulted in the mother's death. The problem, of course, was not only that medical methods of birth control were limited, but also that there was tremendous social pressure not to seek — or even discuss — methods to prevent pregnancy.

One might argue that the early steps toward the development of the pill were taken during the first decades of this century, when scientists began to apply the scientific method to the quest to understand human reproduction. For centuries it had been thought that women played no more than a passive role in making babies, that they were merely incubators for the male "seed" that, once planted, found a comfortable place in the female anatomy in which to settle and grow.

Even when the intricacies of the woman's eggs and their relationship to the menstrual cycle became a topic of scientific interest, research-

ers got it exactly wrong. They announced confidently that women released eggs during the menstrual flow, were most likely to become pregnant then and were infertile during the middle of the cycle.

During the 1920s, the process and timing of ovulation and its orchestration of the female hormones estrogen and progesterone came to be understood. About the same time, researchers began looking into the biological activity of hormones and the potential for artificially synthesizing these natural chemicals. One such researcher, Robert Marker, inadvertently got caught up in the origins of the pill when

he gathered vast quantities of "stinking roots" in Mexico and extracted syrupy potions from them in the first successful attempt to synthesize progesterone.

Another researcher, the famed Harvard obstetrician John Rock, found himself in the history books as an early "father" of the birth-control pill not because he was seeking a new form of contraception but because he was experimenting with the new synthetic progesterone to assist infertile women to become pregnant.

Rock's approach was novel. Infer-

tile women whose cycles were regulated with the synthetic hormones did not ovulate. But when the man-made progesterone was withdrawn, there was a rebound effect that increased the chances of a successful pregnancy. Ironically, by assisting women who wanted babies, Rock was setting the biochemical stage for the debut of the pill.

The "perfect contraceptive" came on the scene quickly after the idea was officially put on the table because of one very powerful and outspoken woman, Margaret Sanger, and one exceedingly rich woman, Katherine McCormick. These determined women cornered the well-known biomedical researcher Gregory Pincus and told him in essence, "We want a birth-control method that is effective, safe and as easy to take as aspirin. Find it now; we will give you all the money you need to accomplish this goal."

Pincus got right to work, but not so much in the lab as on the road. He tracked down the research of reproductive scientists over the preceding 30 years, seeking supplies of progesterone and enlisting the help of clinical physicians such as Rock. Indeed, when Pincus saw Rock's work on infertile women — specifically, when he saw the complete effectiveness of Rock's hormonal interventions to stop ovulation — he knew instantly that the chemistry for the pill he had been commissioned to invent already existed.

Rock became Pincus' ally even though Rock, as a practicing Roman Catholic, was an unlikely comrade in the search for the perfect birth-control method. Despite this apparent paradox, Rock's work with infertile parents and the proof that ovulation could be controlled ultimately provided evidence for the first clinical trials of the pill in the 1950s.

Rock circumvented the need for the FDA to approve an "oral contraceptive" by applying to the pill the euphemism "menstrual cycle regulator." As a result, millions of women and their doctors discovered the benefits of "cycle regulation" — which just happened to have the side effect of preventing

see **PILL**,  
page B6



**THE PILL:**  
A BIOGRAPHY OF  
THE DRUG THAT  
CHANGED THE WORLD  
By Bernard Asbell  
Random House, \$25,  
411 pages, illus.  
REVIEWED BY ELIZABETH M. WHELAN

Pictured above (from left)  
are Gregory Pincus, John Rock and  
Carl Djerassi.

# PILL

From page B8

pregnancy.

Sanger met resistance in her early days, defying the Comstock laws, which prohibited the distribution of obscene materials and contraceptive information through the mails, and opening clinics to distribute diaphragms and condoms. But the main resistance to the pill would come from the Roman Catholic Church.

A devout Catholic, Rock tried to bring the church around with his 1962 book, "The Time Has Come: A Catholic Doctor's Proposals to End the Battle Over Birth Control." Rock himself had had a personal encounter with the obstinacy of church doctrine when he had been denied absolution before his mar-

■ Was the pill "progress"? Yes, definitely. But as a time-honored adage reminds us, progress is sometimes the swapping of old troubles for new ones.

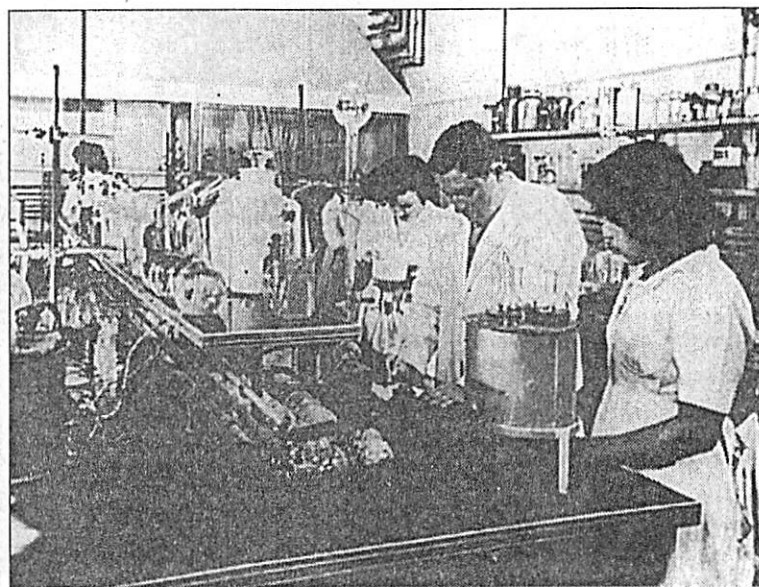
riage, put it, the pope's condemnation of oral contraceptives was "one of the worst mistakes in the history of Catholic Christianity." In essence, the church said no to the pill — but the overwhelming majority of Catholic doctors and couples said yes.

While the pill's developers probably anticipated some degree of religious disapproval, perhaps not even the most prescient of them could have predicted the social and moral repercussions that would be attributed to this new form of birth control. The pill, in effect, separated sexual activity from the consequence of pregnancy.

But was the pill, as Mr. Asbell maintains, "the drug that changed the world?" Can we attribute the increase in premarital and extramarital sex — and the economic and vocational liberation of women — to this chemical compound? We may have to leave those questions to the social historians of the next century, but on this we may agree: The pill was a spectacular success in a new field — a field that Mr. Asbell calls "bioinvention," the manipulation of the normal physiological processes to improve the quality of life.

Was the pill "progress"? Yes, definitely. But as a time-honored adage reminds us, progress is sometimes the swapping of old troubles for new ones.

*Elizabeth M. Whelan is president of the American Council on Science and Health.*



Key players were Carl Djerassi (above), who sought a chemical synthesis of progesterone; Gregory Goodwin Pincus (top), developer of the pill; and Margaret Sanger (left), spokeswoman for birth control.



riage because he confessed to performing Caesarean sections, which, according to the church, were sinful.

In his book, Rock argued that the pill was just a modern version of natural hormones, the study of which perfected the church-endorsed "rhythm method" of family planning. Many if not most Catholic couples and clergy agreed with Rock, but Pope Paul VI, in his 1968 encyclical "Humane Vitae," definitely did not. He declared the pill unacceptable and sinful.

Mr. Asbell argues that this was the most serious confrontation the church had had with science since Galileo and that it represented the church's most embarrassing defeat. As one priest, a supporter of the