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no.3 OF A SERIES

TIPPING THE BALANCE IN YOUR FAVOR

New Olds-developed machine makes wheel balancing three times more accurate!

Out-of-balance wheels and tires are not only a source of annoyance and tire wear, but also in extreme cases, a detriment to safety by causing excessive shimmy at higher speeds.

To virtually eliminate this problem, Oldsmobile engineers, in conjunction with the General Motors Research Section, have developed a machine that automatically balances every wheel and tire with a degree of precision not previously possible on a production basis. With this equipment, balancing is now accurate to 2 inch-ounces, or approximately three times more precise than before.

The heart of such accuracy is an automatic electronic computing device. After the tire and wheel are located on a delicate sensing table, supported on an air bearing, four differential transformers signal the out-of-balance to an electronic computor. This computor then resolves the vector forces and a signal of the proper magnitude and direction is transmitted to the stamping head which automatically revolves to the correct location on the wheel. The stamping head then prints the correct weight, accurate to .25 ounce. The entire assembly is then moved to a station where the weights are attached.

It has often been said that "Olds really knows how to put a car together." This reputation grew from a sincere concern for just such little-noticed details. A warm welcome awaits you at your Olds dealer's. He invites you to try a '58 Olds on the road.

OLDSMOBILE DIVISION
GENERAL MOTORS CORP.

OLDSMOBILE

Pioneer in Progressive Engineering ...Famous for Quality Manufacturing

1948—*Early "point contact" transistor.*

The remarkable transistor observes its 10th birthday

In 1948, Bell Telephone Laboratories announced the invention of the transistor. In 1958, the transistor provided the radio voice for the first United States satellite.

To advance the transistor to its high level of usefulness, Bell Labs had solved problems which, in themselves, approached the invention of the transistor itself in scientific achievement.

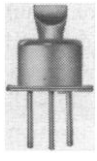
First, there had to be germanium of flawless structure and unprecedented purity. This was obtained by growing large single crystals—and creating the "zone refining" technique to purify them to one harmful part in *ten billion.*

The "junction" transistor, another radical advance, spurred transistor use. Easier to design, lower in noise, higher in gain and efficiency, it became the heart of the new electronics.

An ingenious technique for diffusing a microscopically thin layer on semiconductors was created. The resulting "diffused base" transistor, a versatile broadband amplifier, made possible the wide use of transistorized circuits in telephony, FM, TV, computers and missiles.

In telephony the transistor began its career in the Direct Distance Dialing system which sends called telephone numbers from one exchange to another.

For Bell System communications, the transistor has made possible advances which would have been impossible or impractical a brief decade ago.



1958—*Satellite transistor, incorporating 10 years of Bell Labs research and development.*

BELL TELEPHONE LABORATORIES

WORLD CENTER OF COMMUNICATIONS RESEARCH AND DEVELOPMENT