Sounding a new production note for 1930

with

TIMKEN BEARING EQUIPPED

The new year will put operating and production costs on a new low level in many plants—with Timken-equipped machinery.

For industry has found the one bearing that does all things well... TIMKEN... with its exclusive, wear-defying, cost-cutting combination of Timken tapered construction, Timken POSITIVELY ALIGNED ROLLS and Timken steel.

And in future years, when the responsibility for continued progress rests on the shoulders of the student engineers of today, "Timken Bearing Equipped" will still be one of the most potent weapons with which to fight waste and inefficiency.

A systematic study of Timken possibilities in all types of machinery will well repay the student engineer.

THE TIMKEN ROLLER BEARING CO.
CANTON, OHIO

TIMKEN Tapered ROLLER BEARINGS

JANUARY, 1930
OXWELDING—PROVED BY TEST

Oxwelded pressure vessels constitute an outstanding example of the results which can be obtained through intelligent application of the oxy-acetylene process. Introduction of oxy-acetylene welding into the production of large pressure vessels has resulted in increased dependability, and noteworthy contributions to the knowledge of the best methods of design.

Never before has it been possible to test full size pressure vessels actually to destruction. With oxwelded construction, however, it has been possible to test each design until the plate itself failed and to correct any weaknesses discovered in design or materials. Test pressures of three times the working pressure are standard for oxwelded pressure vessels.

From time to time the oxy-acetylene industry is in the market for technically trained men. It offers splendid opportunities for advancement.

The Linde Air Products Company — The Prest-O-Lite Company, Inc. — Oxweld Acetylene Company — Union Carbide Sales Company — Manufacturers of supplies and equipment for oxy-acetylene welding and cutting — Units of

UNION CARBIDE AND CARBON CORPORATION
30 East 42nd Street
New York, N. Y.

JANUARY, 1930

One of a series of advertisements featuring College men serving this industry.
This Twin Balanced Angle Compressor is directly connected to a synchronous motor, mounted on its own bearings and its shaft coupled to those of the compressor. Either compressor can be operated alone, in slack periods.

Air power cuts the cost, and electricity serves new millions

 Balanced Angle Compressors increase profits for Builders of ⅔ of America's electrical equipment

A cost cut on an electrical product may bring a million customers. A million new buyers in industry—or a million new families who wash, iron, sew, clean, refrigerate, or exercise, electrically.

Production processes and machines set the growth of the electrical industry. They are adopted, when they prove they can cut costs.

—and today, builders of two-thirds of America's electrical equipment use air power from Balanced Angle Air Compressors.

In the plant illustrated, two twin Balanced Angle Compressors were bought first. Then a third, a fourth, a fifth, followed in quick succession.

While air proved its economy on a swiftly-growing list of uses—Balanced Angle Compressors proved their economy in power, maintenance, and floor space.

They have proved their economy to leaders in every industry. They will prove it to you.

Why not send now for catalog 83-J?

SULLIVAN

Sullivan Machinery Company
815 Wrigley Bldg., Chicago

JANUARY, 1930
Proving
New Departure
Quality

ONLY through a constant and
diligent search for better methods
and better materials can a better
product be made.

The meticulous care and rigid
inspection which attend every step
in the manufacture of New Departure
steel and its fabrication into
ball bearings are not the only safe-
guards of high quality employed.

Bearings of all other kinds, to-
gether with New Departures, are
constantly being tested under all
sorts of conditions in a modernly
equipped laboratory, manned by
a staff of competent research
engineers.

The picture is that of a four-
square automobile rear axle test
being conducted in the laboratory.

Torque of any magnitude may be
imposed on the axles through a
specially constructed torsion me-
ter. Torque and direction of drive
are reversed periodically so that
the bearings in each axle receive
identical treatment. Temperatures
are regularly recorded and bearing
failures are detected with the aid
of a stethoscope. The variable
speed motor allows any speed up
to the equivalent of about 60 miles
per hour. At the conclusion of
the test, results are thoroughly ex-
amined by metallurgists, chemists
and engineers, each group being
required to formulate a compre-
hensive report of its findings.

The New Departure Mfg. Com-
pany, Main Offices and Works,
Bristol, Connecticut; Detroit, Chi-
icago, San Francisco and London.

NEW DEPARTURE
BALL BEARINGS
UP FROM THE OXCART

"Acceleration, rather than structural changes, is the key to an understanding of our recent economic developments."—From the report of President Hoover's Committee on Recent Economic Changes

YESTERDAY, the rumble, creak, and plod of cart and oxcart. To-day and to-morrow the zoom of airplanes. Faster production. Faster consumption. Faster communication.

Significant of electricity's part in the modern speeding-up process is the fact that during the last seven years, consumption of electric power increased three and one-half times as fast as population.

General Electric and its subsidiaries have developed and built much of the larger apparatus that generates this power as well as the apparatus which utilizes it in industry and in the home.

The college-trained men who come every year to General Electric take a responsible part in the planning, production, and distribution of electric products, and at the same time receive further technical or business training.

GENERAL ELECTRIC

GENERAL ELECTRIC COMPANY, SCHENECTADY, NEW YORK