Title: Front Matter

Issue Date: 1941-02

Publisher: Ohio State University, College of Engineering

Citation: Ohio State Engineer, vol. 24, no. 3 (February, 1941), 1-5.

URI: http://hdl.handle.net/1811/35760
If you want to make the grade as an engineer when you leave college—

No engineer can be expected to know everything about the highly-specialized subject of anti-friction bearings, but every engineer must be familiar with the fundamentals of bearing design and application. The more you learn about bearings now the better an engineer you will be when you graduate.

The TIMKEN Tapered Roller Bearing is the most widely used of all anti-friction bearings because it best meets every requirement of industry and transportation in conquering friction, preventing wear, carrying radial, thrust and combined loads and holding moving parts constantly in alignment.

With more than 42 years of tapered roller bearing development to its credit plus unequalled engineering experience in applying bearings to every kind of machinery, The Timken Roller Bearing Company is in the best possible position to give you any bearing advice or assistance you may need now or in the future. We invite you to consult us at any time. Write for a copy of the Timken Reference Manual.

THE TIMKEN ROLLER BEARING CO., CANTON, OHIO
Winter brings both the enjoyment of sports with skates and skis and the healthful stimulation of a restful season. Young and old find the countryside inviting—the fields blanketed with snow, trees sparkling with crystals.

No longer is the season regarded as too formidable for outdoor recreation. The advances of medical science and chemistry have minimized the former hazards of winter cold.

We can enjoy winter with confidence today largely because of chemistry's contribution to the preservation of good health. For the chemist is behind both doctor and pharmacist who prescribe and dispense the drugs that safeguard us.

In this field Dow has long been active producing such products as:

- Acetyl Salicylic Acid and Acetphenetidin, both widely used by the medical profession to combat common colds, influenza and muscular distress—Chloroform, a common sedative agent in cough remedies.
- Epsom Salts that recreate the therapeutic values of England's Epsom waters—Glycine, Iodine, Carbolic Acid.

These and more than thirty other pharmaceutical chemicals form a major division of Dow's widespread activity.

Here is a field in which Dow is recognized as an outstanding leader—a field of chemistry which has an exceedingly important bearing on the maintenance of America's good health.
Every student desires his School Annual to be the crowning achievement of his glorious school days. Different ... original ... exciting ... a standout reproduction of many happy hours. His Year Book ... the family album of his school life ... put down in striking fashion to recall in years to come the most outstanding days of yester-year. Be sure to obtain the services of a competent printer qualified to produce Student Publications through years of close association with student needs. And too ... your printer must be one with ideas as modern as today. Call or write for one of our trained staff to assist you in putting your School Annual and Student Publications over in 1941.

CARROLL PRESS, INC.
SPECIALISTS IN STUDENT PUBLICATIONS
32 WARREN ST. • UN. 4185 • COLUMBUS, OHIO
Modern machine design, encountering combination loads, intensifies the need for truly accurate and permanent location of revolving parts. Yet sound and economical construction in many instances does not indicate the use of two or more bearings to resist both radial and thrust loads.

Designers and engineers meet this situation readily, effectively and economically by specifying the ball bearing. For the ball bearing—and only the ball bearing—will properly resist loads from all directions and in all combinations.

Two Jobs — One Bearing
Big advantages in economy of manufacture and machine performance result from the use of the Angular Contact Double Row ball bearing which was originated by New Departure to resist both radial and thrust loads.

Today automobiles, trucks, tractors and machinery of many kinds depend upon bearings developed by New Departure from this original dual purpose "new departure."


New Departure
Ball Bearings
Nothing Rolls Like a Ball
NIGHT BASEBALL
Six major league parks have been equipped by Westinghouse for night baseball. Each of these "8-tower" installations develops approximately the following amount of light:
1. 750,000 Candle power
2. 100,000,000 Candle power
3. 2,575,000 Candle power
4. 210,000,000 Candle power

THE STERILAMP
Science has acclaimed the new Sterilamp developed by Westinghouse because:
1. It provides normal daylight for classrooms, offices and factories.
2. It facilitates medical diagnosis of difficult pathological conditions.
3. It kills micro-organisms with ultraviolet radiation.
4. It extends the range of airway beacons.

THE ATOM SMASHER
The giant 90-ton atom smasher in the Westinghouse Research Laboratories is used principally for:
1. Testing the tensile strength of metal.
3. Conducting theoretical research in nuclear physics.
4. Providing high-voltage beam for deep X-raying.

THE LARGEST TELESCOPE
The 200-inch telescope for which Westinghouse designed and built the mounting is now being erected:
1. On Mt. Palomar, California.
3. On Sankaty Head, Nantucket.

THE TIME CAPSULE
The Westinghouse Time Capsule buried on the site of the New York World's Fair contains:
1. Various plans for universal peace.
2. A record of contemporary civilization.
3. Autographs of celebrities who visited the N. Y. World's Fair.
4. A list of the most important electrical inventions of the twentieth century.

Just a Word
Before You Begin

Here's an opportunity to test your knowledge of electricity and measure your familiarity with important developments in the field of science.

Optional answers are provided for each of the six situations illustrated at the left. Your task is to select the one that's correct. So that there'll be no temptation to peek, the answers are printed below, upside down.

If you get four out of six correct your knowledge of electricity is average. Five out of six is good. If you chalk up a perfect score the class ought to vote you "most likely to succeed."

<table>
<thead>
<tr>
<th>A N S W E R S</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. various plans for universal peace.</td>
</tr>
<tr>
<td>2. a record of contemporary civilization.</td>
</tr>
<tr>
<td>3. autographs of celebrities who visited the N. Y. World's Fair.</td>
</tr>
<tr>
<td>4. a list of the most important electrical inventions of the twentieth century.</td>
</tr>
</tbody>
</table>

Westinghouse "The name that means everything in electricity"
The OHIO STATE ENGINEER

Vol. XXIV FEBRUARY, 1941 No. 3

TABLE OF CONTENTS

"Calling All Cars" ........................................... 6
Arno C. Fieldner ’06 ........................................... 9
In the Doctor's Office ....................................... 11
Cadet Engineers at Knox .................................... 12
The Engineer’s Bookshelf .................................. 14
Let’s Go! .......................................................... 16
(The Engineer’s Prom, Texnikoi, and the Engineer’s Council)
The Charlie Horse ............................................ 19
Quadrangle Quips ............................................. 20
Departmental News ........................................... 22
As We See It .................................................... 24

Members of the Engineering College Magazines Associated
Professor H. C. Richardson, National Chairman, University of Minnesota,
Minneapolis, Minn.

Arkansas Engineer .............................................
Colorado Engineer ............................................
Cornell Engineer .............................................
Iowa Engineer ..................................................
U. of Iowa Transit ...........................................
Kansas Engineer ..............................................
Kansas State Engineer ......................................
The Marquette Engineer ...................................
Michigan Technic ............................................
Minnesota Techno-Log ......................................
Nebraska Blue Print ........................................
New York University ....................................... 
Quadrangle ....................................................
North Dakota State Engineer ............................
The Ohio State Engineer ...................................
Oklahoma State Engineer ..................................
Oregon State Technical Record ..........................
Pennsylvania Triangle ......................................
The Purdue Engineer ........................................
Rose Technic ..................................................
Tech Engineering News ....................................
Illinois Technograph ....................................... 
Villanova Engineer .......................................... 
Washington State Engineer ................................
Wayne Engineer .............................................
Wisconsin Engineer .........................................

DONALD E. POSTLEWAITE, Editor
IVAN W. SPRATZAR, Bus. Mgr.

Published in the months of November, December, February, March, April, May and
June by the students in the College of Engineering, The Ohio State University, Columbus,
Ohio. Subscription price, 97 cents (tax 3 cents) per year for seven copies: Single copies,
15 cents each. Make checks and money orders payable to THE OHIO STATE ENGI-
NEER.

Entered as second-class matter May 15, 1912, at the post office at Columbus, Ohio, under the Act of
March 3, 1879. Acceptance for mailing at special rate of postage provided for in

February, 1941