Machine art : March 6 to April 30, 1934

Date
1934

Publisher
The Museum of Modern Art

Exhibition URL
www.moma.org/calendar/exhibitions/1784

The Museum of Modern Art's exhibition history—from our founding in 1929 to the present—is available online. It includes exhibition catalogues, primary documents, installation views, and an index of participating artists.
PLEASE RETURN TO DEPT. OF
ARCHITECTURE & DESIGN
THE INSTITUTE OF DESIGN ART
MUSEUM OF MODERN ART

MACHINE ART
LENDERS TO THE EXHIBITION

The Accessories Co., Inc., 40 West 40th Street, N. Y. Division American Radiator Co.

Bathroom equipment

Aluminum Company of America, Pittsburgh, Pa.
Tubing, pistons, propellers, radiators, partitions


American Radiator Co., 40 West 40th Street, N. Y.

American Sheet & Tin Plate Co., 71 Broadway, N. Y. Subsidiary United States Steel Corp.

Stainless steel partitions, automobile hubcap

Cables, springs, strip steel

Arundell Clarke Ltd., 620 Fifth Avenue, N. Y.
Ash tray

The Bingham Stamping & Tool Co., 1062 Post Street, Toledo, Ohio (R. Aberli, Jr., 225 Fifth Avenue, N. Y.)
Trays

Bissell Carpet Sweeper Co., Grand Rapids, Mich. (46 West Broadway, N. Y.)

Meter

Brown & Sharpe Manufacturing Co., Providence, R. I. (Brown & Sharpe of N. Y., Inc., 20 Vesey Street, N. Y.)
Precision instruments

L. D. Cahn Co., 31 Spring Street, N. Y.
Stainless steel utensils

Car wheel and axle

Chase Brass & Copper Co., Waterbury, Conn. (Specialty Sales Division, 200 Fifth Avenue, N. Y.)
Bowls, trays, plates

Clyde-Mallory Line
Switchboard

Bathroom fittings

The Conover Co., Chicago, Ill. (101 Park Avenue, N. Y.)
Dishwasher

Coors Porcelain Co., Golden, Colorado
Laboratory porcelain
<table>
<thead>
<tr>
<th>Company Name</th>
<th>Address</th>
<th>Products/Products Offered</th>
</tr>
</thead>
<tbody>
<tr>
<td>P. &amp; F. Corbin, 101 Park Avenue, N.Y.</td>
<td>Hardware</td>
<td>Laboratory glass, vases, bowls</td>
</tr>
<tr>
<td>Corning Glass Works, Corning, N.Y.</td>
<td>(501 Fifth Avenue, N.Y.)</td>
<td>Picture frames</td>
</tr>
<tr>
<td>Design Engineers, Inc., 745 Fifth Avenue, N.Y.</td>
<td></td>
<td>Dictaphone Sales Corporation, 420 Lexington Avenue, N.Y.</td>
</tr>
<tr>
<td>Eugene Dietzgen Co., Inc., 218 East 23rd Street, N.Y.</td>
<td>Drafting and surveying instruments</td>
<td>Laboratory glass, scientific instruments</td>
</tr>
<tr>
<td>Distillers Products Corp., Empire State Building, N.Y.</td>
<td>Rumidor</td>
<td>Alfred Dunhill of London, Inc., 622 Fifth Avenue, N.Y.</td>
</tr>
<tr>
<td>Electric Boat Company, Bayonne, N.J.</td>
<td>Propeller</td>
<td>Eimer &amp; Amend, Third Avenue at 18th Street, N.Y.</td>
</tr>
<tr>
<td>Electrol Inc., 227 East 45th Street, N.Y.</td>
<td>Furnace</td>
<td>Electric Boat Company, Bayonne, N.J.</td>
</tr>
<tr>
<td>Electromaster Inc., 1803 East Atwater Street, Detroit, Mich.</td>
<td>Range</td>
<td>The Fay Co., 130 Madison Avenue, N.Y.</td>
</tr>
<tr>
<td>The Fay Co., 130 Madison Avenue, N.Y.</td>
<td>Floor machine</td>
<td>Fleetwings, Inc., Garden City, L.I.</td>
</tr>
<tr>
<td>Ford Motor Co., Dearborn, Mich.</td>
<td>Headlamps</td>
<td>Headlamps</td>
</tr>
<tr>
<td>Fostoria Glass Co., Moundsville, W.Va., (200 Fifth Avenue, N.Y.)</td>
<td>Tumblers, goblets, plates, vases</td>
<td>The Gorham Co., Providence, R.I., (6 West 48th Street, N.Y.)</td>
</tr>
<tr>
<td>The Gorham Co., Providence, R.I., (6 West 48th Street, N.Y.)</td>
<td>Flat silver</td>
<td>Hamilton Beach Manufacturing Co., Racine, Wis. (280 Broadway, N.Y.)</td>
</tr>
<tr>
<td>Hamilton Beach Manufacturing Co., Racine, Wis.</td>
<td>Vacuum cleaner</td>
<td>Hamilton-Standard Propeller Corp., Hartford, Conn.</td>
</tr>
</tbody>
</table>
LENDERS TO THE EXHIBITION—Continued

Hanson Scale Co., 523 North Ada Street, Chicago, Ill., (1150 Broadway, N. Y.)
  Bathroom scale
Hoffmann & Billings Manufacturing Co., Milwaukee, Wis.
  (Henry Stein, 50 Cliff Street, N. Y.)
  Mixer Faucet
Holophane Co., Inc., 342 Madison Avenue, N. Y.
  Diffusing lenses
Howell Co., Geneva, Ill.
  Metal chairs
The International Nickel Co., Inc., 67 Wall Street, N. Y.
  Sink
Jaeger Watch Co., Inc., 304 East 45th Street, N. Y.
Janes & Kirtland, Inc., 101 Park Avenue, N. Y.
  Kitchen cabinets
Lalance & Grosjean Mfg. Co., Woodhaven, L. I. (405 Lexington Avenue, N. Y.)
  Kitchenware
  Potentiometer
Lenox Inc., Trenton, N. J.
  Porcelain vases, plates
Lewis & Conger, 45th Street and Sixth Avenue, N. Y.
  Knives, spoons, enamel kitchenware, glassware
Lily-Tulip Cup Corp., 122 East 42nd Street, N. Y.
  Paper cups and containers, dispensers
Herman Miller Clock Co., Zeeland, Mich. (62 West 47th Street, N. Y.)
The National Cash Register Co., Dayton, Ohio. (205 East 42nd Street, N. Y.)
National Tube Co., Pittsburgh, Pa. Subsidiary United States Steel Corp.
  Stainless steel tubing
Ovington’s, Fifth Avenue at 39th Street, N. Y.
  Imported glassware, enlarging mirror
Owens-Illinois Glass Co., Toledo, Ohio. (405 Lexington Avenue, N. Y.)
  Bottles and jars
Platinel, Inc., 103 Washington Avenue, Albany, N. Y.
  Ash tray
Platinum Products Co., 521 Fifth Avenue, N. Y.
  Cigarette lighters
Polar Ware Co., Inc., Sheboygan, Wis. (239 Eleventh Avenue, N. Y.)
  Kitchenware
Revere Copper & Brass Inc., Rome Manufacturing Division, Rome, N. Y.
  (230 Park Avenue, N. Y.)
  Kitchenware, bowls
LENDERS TO THE EXHIBITION—Continued

Ritter Dental Manufacturing Co., Inc., Rochester, N. Y. (200 Fifth Avenue, N. Y.)
X-ray apparatus

SKF Industries, Inc., Front Street and Erie Avenue, Philadelphia, Pa.
Ball bearing

Saks-Fifth Avenue, 611 Fifth Avenue, N. Y.
Accessories

Scovill Manufacturing Co., Waterville, Conn.
Flush valve

Scully Steel Products Co., Waverly, N. J. Subsidiary United States Steel Corp.
Rolled steel sections

The Silex Company, Hartford, Conn. (E. B. Latham & Co., 250 Fourth Ave., N. Y.)
(Louis C. Eitzen, 280 Broadway, N. Y.)
Measuring device

The Standard Oil Co. of Ohio, Cleveland, Ohio
Gasoline pump

Carol Stupell, 443 Madison Avenue, N. Y.
Martini mixer

Sullivan Shipyards, Inc., 827 East 9th Street, N. Y.
Propeller

Taylor Instrument Companies, Rochester, N. Y. (30 Rockefeller Plaza, N. Y.)
Thonet Brothers, Inc., 33 East 47th Street, N. Y.
Metal chairs

The Torsion Balance Co., 92 Reade Street, N. Y.
Torsion scale

United States Steel Corp., 71 Broadway, New York—Lent through subsidiaries
Kurt Versen, 19 East 47th Street, N. Y.
Lighting fixtures

Waters-Genter Co., Minneapolis, Minn.
(Tumbridge Sales Corp., 196 Lexington Avenue, N. Y.)
Electrical cooking appliances

Western Clock Co., LaSalle, Ill.
Westinghouse Electric & Manufacturing Co., N. Y.
Insulators, lamps, fuse, switchboard, micarta panels, meters, clock motors

The S. S. White Dental Manufacturing Co., 500 Fifth Avenue, N. Y.
Russel Wright, 165 East 35th Street, N. Y.
Wooden bowls and tableware

The Yale & Towne Manufacturing Co., Stamford, Conn.
Padlock

York Safe & Lock Co., York, Pa. (55 Maiden Lane, N. Y.)
Carl Zeiss Inc., 485 Fifth Avenue, N. Y.
Optical instruments
In addition to those who have lent to the Exhibition, the President and Trustees of The Museum of Modern Art wish to thank for their assistance in procuring objects not manufactured or owned by them:

United States Steel Corporation
Westinghouse Electric & Manufacturing Company
Aluminum Company of America

for generously lending materials for installation:

American Sheet & Tin Plate Company, Subsidiary United States Steel Corp.
Aluminum Company of America
Westinghouse Electric & Manufacturing Company
Lily-Tulip Cup Corporation

for the design of the cover:

Prof. Josef Albers, Black Mountain College, Black Mountain, N. C.

for the photography in the catalog:

Miss Ruth Bernhard

for his assistance in designing the installation:

Mr. Jan von Ruhtenberg, of Stockholm

for their special advice:

Prof. C. R. Richards, of the New York Museum of Science & Industry
Prof. H. R. Hitchcock, Jr. of Wesleyan University

TRUSTEES
A. Conger Goodyear, President
Mrs. John D. Rockefeller, Jr., Treasurer
Samuel A. Lewisohn, Secretary
William T. Aldrich
James W. Barney
Frederic Clay Bartlett
Cornelius N. Bliss
Stephen C. Clark
Mrs. W. Murray Crane
Frank Crowninshield
Duncan Phillips
Nelson A. Rockefeller
Mrs. Rainey Rogers
Mrs. Charles C. Rumsey
Paul J. Sachs
Mrs. John S. Sheppard
Edward M. M. Warburg
John Hay Whitney

COMMITTEE ON THE EXHIBITION
Stephen C. Clark
A. Conger Goodyear
Nelson A. Rockefeller
Philip Johnson, Director of the Exhibition
Ernestine M. Fantl, Assistant

Alfred H. Barr, Jr., Director
Alan R. Blackburn, Jr., Executive Director
Philip Johnson, Chairman, Department of Architecture
By beauty of shapes I do not mean, as most people would suppose, the beauty of living figures or of pictures, but, to make my point clear, I mean straight lines and circles, and shapes, plane or solid, made from them by lathe, ruler and square. These are not, like other things, beautiful relatively, but always and absolutely.

Plato: *Philebus* 51 c


For beauty three things are required. First, then, integrity or perfection: those things which are broken are bad for this very reason. And also a due proportion or harmony. And again clarity: whence those things which have a shining color are called beautiful.


Industrial civilization must either find a means of ending the divorce between its industry and its “culture” or perish.

L. P. Jacks: *Responsibility and Culture*
Machine Art and Geometrical Beauty.

The beauty of machine art is in part the abstract beauty of “straight lines and circles” made into actual tangible “surfaces and solids” by means of tools, “lathes and rulers and squares.” In Plato’s day the tools were simple handworker’s implements but today, as a result of the perfection of modern materials and the precision of modern instruments, the modern machine-made object approaches far more closely and more frequently those pure shapes the contemplation of which Plato calls the first of the “pure pleasures.”

Machines are, visually speaking, a practical application of geometry. Forces which act in straight lines are changed in direction and degree by machines which are themselves formed of straight lines and curves. The lever is geometrically a straight line resting on a point. The wheel and axle is composed of concentric circles and radiating straight lines. The watch spring (No. 7) is a spiral. Sphericity and circularity are the geometrical characteristics of a ball bearing (No. 50). Screws, bearing springs (No. 1), and propellers (No. 41) are various—and variously beautiful—applications of the helix and helicoid.

Static and Kinetic Rhythms.

The beauty of machine art depends often upon rhythmical as well as upon geometrical elements—upon repetition as well as upon shape. The teeth of a saw form a simple static rhythmic series; the keys and levers of the cash register (No. 88) make a more varied and complex series.

Motion is an essential function of many machines and sometimes increases their aesthetic interest, principally through the addition of temporal rhythms, both of movement and of sound. The pistons of a locomotive or the rising and falling frames of a mechanical loom illustrate the point. On the other hand a propeller, a governor, a rotary saw, a ball bearing are more beautiful as objects when they are still or, better, moving very slowly. Even the streamlined object is more frequently admired when at rest than when in motion. Fortunately for this exhibition machines proper are only a small part of machine art as a whole.
Technical and Material Beauty.

In addition to perfection of shape and rhythm, beauty of surface is an important aesthetic quality of machine art at its best. Perfection of surface is, of course, made possible by the refinement of modern materials and the precision of machine manufacture. A watch spring is beautiful not only for its spiral shape but also for its bright steel surface and its delicately exact execution.

Machine art, devoid as it should be of surface ornament, must depend upon the sensuous beauty of porcelain, enamel, celluloid, glass of all colors, copper, aluminum, brass and steel. The circles and spheres of a ball bearing (No. 50) are greatly enhanced by the contrasting surfaces of brushed steel races, shining polished steel balls, and brass carriers.

Visual Complexity.

The beauty in machine art as in all art varies in relation but not in proportion to its complexity. A watch crystal, perfect though it may be, is too simple a form to hold our visual interest for long. A printing press, on the other hand, is too complicated an arrangement of shapes for the human eye to enjoy aesthetically. Moderately simple machine compositions such as the door of a wall safe (No. 91) or the microscope (No. 314) or our classical example, the ball bearing (No. 50) prove more satisfactory.

Function.

A knowledge of function may be of considerable importance in the visual enjoyment of machine art, though Plato might have considered such knowledge an impurity. Mechanical function and utilitarian function—"how it works" and "what it does"—are distinct problems, the former requiring in many cases a certain understanding of mechanics, the latter, of practical use. Whoever understands the dynamics of pitch in propeller blades (No. 41) or the distribution of forces in a ball bearing (No. 50) so that he can participate imaginatively in the action of mechanical functions is likely to find that this knowledge enhances the beauty of the objects.* In the same way, using or understanding the use of, the calipers (No. 294), the retort (No. 394), or the rotary floor polisher (No. 71) is likely to increase their aesthetic value.

* For most people the beauty of that ingenious engine, the Gothic vault, is augmented by a knowledge of the mechanics which govern its structure and visible form.
Fortunately the functional beauty of most of the objects is not obscure and in any case, so far as this exhibition is concerned, appreciation of their beauty in the platonic sense is more important.

**Machine Art and the Designer.**

The previous paragraphs have considered the aesthetic enjoyment of machines and machine-made objects without mentioning their designers. The designers are of two kinds, technical and artistic. Often one man will combine both roles. For even the most impractical and fantastic "styler" of "modernistic" plumbing fixtures (not included in the exhibition) must consider function; and the most forthright technical designer of microscopes (No. 314) will insist on a perfection of shape and finish which is partially aesthetic.

Many of the finest objects in the exhibition such as the bearing spring (No. 1) or the depth gauge (No. 289) are produced quite without benefit of artist-designer. Their beauty is entirely unintentional—it is a by-product. Nevertheless they satisfy through their "integrity", "due proportion" and "clarity," the excellent thomistic definition of the beautiful as "that which being seen, pleases".*

Many other objects, the clock (No. 270), the chair (No. 282), the lamp (No. 273), are the result of conscious artistic intention. For in a great many useful objects function does not dictate form, it merely indicates form in a general way. The role of the artist in machine art is to choose, from a variety of possible forms each of which may be functionally adequate, that one form which is aesthetically most satisfactory. He does not embellish or elaborate, but refines, simplifies and perfects.

**Machine Art and Fine Art.**

Good machine art is entirely independent of painting, sculpture and architecture. But it may be noted in passing that modern artists have been much influenced by machine art. The Italian futurists, Russolo and Balla, and their English and Russian followers were romantically excited by the power and speed—the *dinamismo*—of machines.† Painters such as Léger and Baumeister have been interested in the decorative and formal qualities

* *Id quod visum placet;* Saint Thomas Aquinas—*Summa Theologiae* I, q. 5, a 4, ad 1.

† The romantic attitude toward the machine reached its height in America about five years ago. The Machine-Age Exhibition held in New York in 1927 was an important pioneer effort which included fantastic drawings of the city of the future, "modernistic" skyscrapers, constructivists, robot costumes, theatre settings, and factories, together with some excellent machines and photographs of machinery.
of machines. Malyevitch, Lissitsky and Mondriaan have used technicians’
tools, the compass and the square, to achieve “abstract” geometrical paint-
ings of a machine-like precision. Picabia and Grosz used machines to invoke
the mirthless laughter of dadaism.

The Russian constructivists, Tatlin, Gabo, Peysner, employed the
technique, the materials and something of the structural feeling of machinery.
The severity and glittering polish of machines have also affected the sculpt-
tors Brancusi, Archipenko and Belling.

Machine art has been the principal influence which has purged the best
post-war architecture from the compromises of both the “modernistic” and
revivalist architects. It is true that the ideas back of Le Corbusier’s famous
phrase “the house should be a machine à habiter” have given rise to much
naive and dreary functionalism. But the leaders of modern architecture
today are united in restoring the artistic function of the architect to its
place beside his technical function.

Machine Forms and Natural Forms.

The beauty of the machine art in so far as it is a mere by-product of
function may seem a meagre and even trivial kind of beauty. But this is not
necessarily so. The beauty of all natural objects is also a by-product—the
helix of a snail’s shell (and a steel coil), the graduated feathering of a bird’s
wing (and the leaves of a laminated spring), the rabbit’s footprints in the
snow (and the track of non-skid tires), the elegance of fruit (and of incan-
descent bulbs).

“Industry and Culture”

It is in part through the aesthetic appreciation of natural forms that
man has carried on his spiritual conquest of nature’s hostile chaos. Today
man is lost in the far more treacherous wilderness of industrial and com-
mercial civilization. On every hand machines literally multiply our diffi-
culties and point our doom. If, to use L. P. Jack’s phrase, we are to “end
the divorce” between our industry and our culture we must assimilate the
machine aesthetically as well as economically. Not only must we bind
Frankenstein—but we must make him beautiful.

A. H. B., Jr.
HISTORY OF MACHINE ART.

Machine Art and Handicraft.

The history of machine art is interwoven with that of handicraft, but in spirit machine art and handicraft are diametrically opposed. Handicraft implies irregularity, picturesqueness, decorative value and uniqueness: figured textiles, pottery vases, decorative friezes, hand-wrought metal work, hand-hammered silver bowls. The machine implies precision, simplicity, smoothness, reproducibility: plain textiles, vases as simple as laboratory beakers, smooth polished metal work.

The difference between craft and the machine lies in spirit and convention as much as in actual method of manufacture. Tools, and simple machines have always been used: the potter’s wheel and the hand loom are machines. Modern equipment is merely more efficient and complex. But whether the designer sits at the loom and works up the pattern as he weaves or whether a motor weaves and the designer sits in an office, the actual work is by machine. A man at a hand loom can weave a rug of machine-like simplicity. A glass blower can make laboratory beakers as well as picturesquely shaped vases. But the craft spirit does not fit an age geared to machine technique. Machine-made imitations of craft objects are parodies, and the real handicrafts have lost their original vigor.

In the development of the design of machines and useful objects, the nineteenth century is an anomaly. In previous periods the normal tendency had been to utilize the best technical and mechanical devices known and to design for these devices. After the invention of the potter’s wheel, vase designs were logically based on its use. But in the nineteenth century technics and design were divorced. Machines made bad designs while good designs continued to be executed by primitive methods.

The twentieth century is gradually rectifying this anomaly and is returning to the more reasonable principle of designing tools and useful objects with reference to the latest technique, out of the most durable material, and as economically as possible. In the same way the mother art of architecture has achieved style after the revivals of the nineteenth century by once more fusing with the latest technique of building science.

The Nineteenth Century.

The Industrial Revolution and the development of machine production in England in the latter part of the eighteenth century brought only ugliness
to ordinary life. It caused slums; it built ugly factories. For utensils it made bad replicas of ugly hand-made objects. People of sensibility in the nineteenth century hated the machines which seemed ugly and created ugliness. They failed to see the possibilities inherent in the new technics. Instead, they misused or rejected the new technics and developed their architecture and useful arts on a handicraft basis.

Nevertheless the science of engineering in the nineteenth century produced a few great buildings. The Crystal Palace at the London Exposition of 1851 is now considered one of the important ancestors of modern architecture. At the time, however, its great mass of glass and steel framework was considered too plain and ugly to deserve even the label of architecture. All the engineering works of the latter part of the nineteenth century and the beginning of the twentieth were considered mere utilitarian objects and as such were looked down upon. The science of building, however, developed rapidly and by the time of the World War had produced many excellent factories, grain silos and bridges.

Meanwhile architecture, independently of engineering, was moving toward simplicity. Philip Webb, Norman Shaw and their followers broke away from Classical and Medieval Revivalism and started the movement known as Queen Anne. In America, H. H. Richardson under the guise of Romanesque Revivalism, was creating his own sturdy simplicity. But only after the War did the stream of architecture join the stream of engineering, to give birth to a genuinely modern architecture. The development of the dependent arts paralleled that of architecture.

At first Gothic and Classical ornament (Fig. a), then Victorian rococo ornament was used whenever possible in designing machine art. Remarkable exceptions were the designs of Sir Joseph Whitworth, strictly simple and functional (Fig. b). He exhibited his machines in the same London Exposition of 1851 where the Crystal Palace caused so much comment. They received no more approbation from the designers of the day than the Crystal Palace did from the architects.

William Morris, the great reformer of the minor arts, especially hated the machine; indeed, it made him almost physically ill to look at the Crystal Palace which he visited as a young man from Oxford. His whole life was devoted to a crusade against the machine and for the ideals of art in everyday objects and art created by the common man himself.

This movement was at the time a healthy one. The minor arts on the
Continent of Europe had become sterile adaptations by indifferent craftsmen of Classical and Baroque forms. Morris had real ideas of simplicity and good workmanship which have their influence even at present. He and his followers revolutionized design in the minor arts toward simplicity and originality, although Morris himself believed that he was reviving the Gothic style.

The English Arts and Crafts Movement reached its heights in the '90s in the work of Voysey, MacIntosh and Baillie Scott, but was not acknowledged as a modern movement until it had been transplanted to the Continent, where it thrived in Vienna and Brussels under the leadership of such men as Josef Hoffmann and Henry van der Velde. Indeed one phase of the Arts and Crafts Movement on the Continent, characterized by curvilinear and naturalistic ornament, may even be called a style: the *Art Nouveau* (Fig. c).
The Twentieth Century.

As in architecture it was only after the War that designers realized the possibility of beauty in the construction of machines. In Germany particularly the post-war generation prided itself on achieving a mechanistic age and on designing the proper utensils for living in it. This was most clearly expressed in the Bauhaus School at Weimar under the leadership of Walter Gropius. In spite of a cubist aesthetic and much left over craft spirit, the movement was more and more toward machine-like simplicity. It was here, for instance, that Marcel Breuer first developed the now ubiquitous tubular steel chair. The movement in Germany has been more and more against Kunstgewerbe—Arts and Crafts—until the modern expositions of what we call industrial art are practically free from that tradition.

The situation in America has been somewhat special. The Arts and Crafts developments in Europe have affected us less, whereas the tradition of machine construction has been purer and stronger. Our precision instruments especially have led the world (Nos. 289 to 313). But our minor arts have suffered from imitation of second-hand European designs. In 1900 Louis Tiffany was the only designer whose work was independent and known outside America. For the most part we inherited the worst of the English Arts and Crafts Movement and the worst of the Art Nouveau style, the worst of the Viennese Kunstgewerbe.

In 1900 Louis Tiffany was the only designer whose work was independent and known outside America. For the most part we inherited the worst of the English Arts and Crafts Movement and the worst of the Art Nouveau style, the worst of the Viennese Kunstgewerbe.

In the '20s we received a fresh wave of foreign influence from France. Though France herself was influenced from central Europe, the Paris Exposition of Decorative Arts of 1925, with its neo-classic trappings and bizarre ornament, made a strong impression on our designers. The problem in America has not been the conflict against a strong handicraft tradition but rather against a “modernistic” French machine-age aesthetic.

Besides the French Decorative movement in the '20s there developed in America a desire for “styling” objects for advertising. Styling a commercial object gives it more “eye-appeal” and therefore helps sales. Prin-
ciples such as "streamlining" often receive homage out of all proportion to their applicability.

Conscious design and the development in machine building have fused and the twentieth century restores the art of making machines and useful objects to its place, as a technic of making rapidly, simply and well the useful objects of current life.

The Scope of the Exhibition.

The Exhibition contains machines, machine parts, scientific instruments and objects useful in ordinary life. There are no purely ornamental objects; the useful objects were, however, chosen for their aesthetic quality. Some will claim that usefulness is more important than beauty, or that usefulness makes an object beautiful. This Exhibition has been assembled from the point of view that though usefulness is an essential, appearance has at least as great a value.

The Exhibition cannot be exhaustive. The very number of useful objects and machines made it impossible even to cover the whole field in making the choices. Exigencies of space prohibited many large items. Inaccessibility prevented choosing items locally distributed in the Far and Middle West. Yet the Exhibition tries to be representative. Some fields, the kitchen and the laboratory, for example, are more fully present than others. This is because the nineteenth century did not consider these objects worthy of decorative treatment.

For the convenience of the reader and the visitor to the Exhibition, the list of objects is divided according to use into six categories.

1. Industrial units: Machines and machine parts: springs, insulators, cable sections, propeller blades, etc.
2. Household and office equipment: Sink, furnace, bathroom cabinets, dishwasher, carpet sweeper and business machines.
3. Kitchenware
4. House furnishings and accessories: Objects used in daily life: tableware, vases and bowls, smoking accessories, lighting fixtures, and furniture.
5. Scientific instruments: Precision, optical, drafting and surveying instruments.
6. Laboratory glass and porcelain: Beakers, hydrometer jars, petri dishes and boiling flasks.

P. J.
SHORT LIST OF BOOKS

Historical:


Osthaus, Karl Ernst. Van de Velde. Hagen i. W., Folkwang-Verlag, 1920. (Die neue Baukunst I)


Contemporary:


Pfeiderer, Wolfgang, introd. Die Form ohne Ornament: Werkbundausstellung 1924. Stuttgart, Deutsche Verlags-Anstalt, 1924. (Bücher der Form I)


DIVISIONS OF THE EXHIBITION

1. Industrial units
2. Household and office equipment
3. Kitchenware
4. House furnishings and accessories
5. Scientific instruments
6. Laboratory glass and porcelain

Within each division the objects are listed according to use.

Listing of each object is as follows: Name of the object
Name of the manufacturer
Name of the designer
Price

Unless otherwise specified the object may be purchased from the manufacturer.

An asterisk before a catalog number indicates that the work is illustrated by a plate which bears the same number.
## 1. INDUSTRIAL UNITS

<table>
<thead>
<tr>
<th>#</th>
<th>Description</th>
<th>Manufacturer</th>
<th>Subsidiary</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Bearing spring</td>
<td>American Steel &amp; Wire Co.</td>
<td>Subsidiary United States Steel Corp.</td>
</tr>
<tr>
<td>2</td>
<td>Section of spring</td>
<td>American Steel &amp; Wire Co.</td>
<td>Subsidiary United States Steel Corp.</td>
</tr>
<tr>
<td>3</td>
<td>Air brake spring</td>
<td>American Steel &amp; Wire Co.</td>
<td>Subsidiary United States Steel Corp.</td>
</tr>
<tr>
<td>4</td>
<td>Railroad car spring</td>
<td>American Steel &amp; Wire Co.</td>
<td>Subsidiary United States Steel Corp.</td>
</tr>
<tr>
<td>5</td>
<td>Typewriter carriage spring</td>
<td>American Steel &amp; Wire Co.</td>
<td>Subsidiary United States Steel Corp.</td>
</tr>
<tr>
<td>6</td>
<td>Motor spring</td>
<td>American Steel &amp; Wire Co.</td>
<td>Subsidiary United States Steel Corp.</td>
</tr>
<tr>
<td>7</td>
<td>Clock spring</td>
<td>Westinghouse Electric &amp; Mfg. Co.</td>
<td></td>
</tr>
<tr>
<td>8</td>
<td>Bumper ring for electric refrigerator</td>
<td>American Steel &amp; Wire Co.</td>
<td>Subsidiary United States Steel Corp.</td>
</tr>
<tr>
<td>9</td>
<td>Clutch spring</td>
<td>American Steel &amp; Wire Co.</td>
<td>Subsidiary United States Steel Corp.</td>
</tr>
<tr>
<td>10</td>
<td>Grease cup spring</td>
<td>American Steel &amp; Wire Co.</td>
<td>Subsidiary United States Steel Corp.</td>
</tr>
<tr>
<td>11</td>
<td>Fine wire spring</td>
<td>American Steel &amp; Wire Co.</td>
<td>Subsidiary United States Steel Corp.</td>
</tr>
<tr>
<td>12</td>
<td>Coil of strip stainless steel</td>
<td>American Steel &amp; Wire Co.</td>
<td>Subsidiary United States Steel Corp.</td>
</tr>
<tr>
<td>13</td>
<td>Steel balls for ball bearings</td>
<td>S K F Industries</td>
<td></td>
</tr>
<tr>
<td>15</td>
<td>Carnegie beam sections</td>
<td>Scully Steel Products Co.</td>
<td>Subsidiary United States Steel Corp.</td>
</tr>
<tr>
<td>16</td>
<td>Standard beam sections</td>
<td>Scully Steel Products Co.</td>
<td>Subsidiary United States Steel Corp.</td>
</tr>
<tr>
<td>17</td>
<td>Steel T sections</td>
<td>Scully Steel Products Co.</td>
<td>Subsidiary United States Steel Corp.</td>
</tr>
<tr>
<td>18</td>
<td>Steel channel sections</td>
<td>Scully Steel Products Co.</td>
<td>Subsidiary United States Steel Corp.</td>
</tr>
<tr>
<td>19</td>
<td>Steel rail sections</td>
<td>Scully Steel Products Co.</td>
<td>Subsidiary United States Steel Corp.</td>
</tr>
<tr>
<td>20</td>
<td>Bare concentric strand of electrical cable</td>
<td>American Steel &amp; Wire Co.</td>
<td>Subsidiary United States Steel Corp.</td>
</tr>
<tr>
<td>21</td>
<td>Bare sector strand of electrical cable</td>
<td>American Steel &amp; Wire Co.</td>
<td>Subsidiary United States Steel Corp.</td>
</tr>
<tr>
<td>22</td>
<td>Hollow conductor of an electrical cable</td>
<td>American Steel &amp; Wire Co.</td>
<td>Subsidiary United States Steel Corp.</td>
</tr>
<tr>
<td>23</td>
<td>Lock coil cable</td>
<td>American Steel &amp; Wire Co.</td>
<td>Subsidiary United States Steel Corp.</td>
</tr>
<tr>
<td>24</td>
<td>Submarine power cable</td>
<td>American Steel &amp; Wire Co.</td>
<td>Subsidiary United States Steel Corp.</td>
</tr>
<tr>
<td>25</td>
<td>Armored submarine power cable</td>
<td>American Steel &amp; Wire Co.</td>
<td>Subsidiary United States Steel Corp.</td>
</tr>
<tr>
<td>26</td>
<td>Section of wire rope 31/2&quot; in diameter</td>
<td>American Steel &amp; Wire Co.</td>
<td>Subsidiary United States Steel Corp.</td>
</tr>
<tr>
<td>27</td>
<td>Cross-sections of unusual wire shapes</td>
<td>American Steel &amp; Wire Co.</td>
<td>Subsidiary United States Steel Corp.</td>
</tr>
<tr>
<td>28</td>
<td>Ordinary rail bond</td>
<td>American Steel &amp; Wire Co.</td>
<td>Subsidiary United States Steel Corp.</td>
</tr>
<tr>
<td>29</td>
<td>Third rail bond</td>
<td>American Steel &amp; Wire Co.</td>
<td>Subsidiary United States Steel Corp.</td>
</tr>
<tr>
<td>30</td>
<td>Chain of rigid type insulators 12&quot; in diameter</td>
<td>Westinghouse Electric &amp; Mfg. Co.</td>
<td></td>
</tr>
<tr>
<td>31</td>
<td>Type PN grey strain insulator</td>
<td>Westinghouse Electric &amp; Mfg. Co.</td>
<td></td>
</tr>
<tr>
<td>32</td>
<td>Ball and socket suspension insulator</td>
<td>Westinghouse Electric &amp; Mfg. Co.</td>
<td></td>
</tr>
<tr>
<td>33</td>
<td>Apparatus type insulator</td>
<td>Westinghouse Electric &amp; Mfg. Co.</td>
<td></td>
</tr>
<tr>
<td>34</td>
<td>Porcelain wall bushing</td>
<td>Westinghouse Electric &amp; Mfg. Co.</td>
<td></td>
</tr>
<tr>
<td>35</td>
<td>Apparatus type insulator valve</td>
<td>Westinghouse Electric &amp; Mfg. Co.</td>
<td></td>
</tr>
</tbody>
</table>
INDUSTRIAL UNITS—Continued

36. Steel car wheel with axle and rail  
Carnegie Steel Co.  
Subsidiary United States Steel Corp.

37. Rectangular, oval and streamlined tubes of aluminum  
Aluminum Company of America

38. Stainless steel tubing sections  
National Tube Company  
Subsidiary United States Steel Corp.

39. Large boat propeller, iron  
Sullivan Shipyards, Inc.

40. Boat propeller, bronze  
Electric Boat Co.

41. Outboard propeller  
Aluminum Company of America

42. Aeroplane propeller  
Hamilton-Standard Propeller Corp.  
Rough forged blades, Aluminum Company of America

43. Radiator tubes with aluminum fins  
Aluminum Company of America

44. Arco convectors  
American Radiator Co.

45. Murray radiator  
American Radiator Co.

46. Steel gears  
Atlantic Gear Works

47. Stainless steel wing rib for aeroplane, shot-welded  
Fleetwings, Inc.

48. Automobile hubcap  
American Sheet & Tin Plate Co.  
Subsidiary United States Steel Corp.

49. Automobile pistons  
Aluminum Company of America

50. Self-aligning ball bearing  
SKF Industries

51. Automobile headlamps  
Ford Motor Co.

52. Circular wood-cutting cross-cut saw  
Henry Disston & Sons, Inc.

53. Plastering trowel, stainless steel  
Henry Disston & Sons, Inc.

54. Gasoline pump  
Standard Oil Co. of Ohio

55. Welded ball of Enduro stainless steel  
Sholes Inc., New York

56. Switchboard  
Westinghouse Electric & Mfg. Co.  
Lent by Clyde-Mallory Line

2. HOUSEHOLD AND OFFICE EQUIPMENT

57. Lavatory panel of the Arco Panel Unit System, equipped with special tubular fittings  
The Accessories Co., Inc.  
Division of American Radiator Co.  
George Sakier, designer  
Panel: $60.00; Standard Sanitary lavatory: $50.00. Licensed plumbers

58. Special medicine cabinet with sliding mirror door  
The Accessories Co., Inc.  
Division of American Radiator Co.  
George Sakier, designer  
$75.00

59. Recess supply cabinet  
Conant Bros. Co.  
$140.00

60. Mirror  
Conant Bros. Co.  
$19.00

61. Niedecken mixer faucet  
Hoffmann & Billings Mfg. Co.  
$25.00. Henry Stein, 50 Cliff St., N. Y.

62. Flush valve  
Scovill Mfg. Co. Plumber's Brass Goods Division  
Licensed plumbers

63. Electrol-Kewanee heating unit, model 10  
Electrol Inc.  
Gerth & Gerth, designers  
$857.00

64. Electrochef range, model B-2  
Electromaster Inc., Detroit, Michigan  
Emil Piron, designer  
$110.00

65. Streamline Monel metal sink  
The International Nickel Co., Inc.  
Gustav Jensen, designer  
$193.50. Licensed plumbers
HOUSEHOLD AND OFFICE EQUIPMENT—Continued

66. Electric plate warmer, White House Line
   Janes & Kirtland, Inc.
   $100.00. Department stores

67. Thermotainer, roll warmer
   Waters-Genter Co. Division of McGraw
   Electric Co.
   $385.00. Tumbridge Sales Corp., New
   York

68. Broom closet, White House Line, Small
   House model
   Janes & Kirtland, Inc.
   $33.75. Department stores

69. Cupboard and drawer base unit with Monel
   metal counter
   Janes & Kirtland, Inc.
   $33.85. Department stores

70. Exhaust fan
   Westinghouse Electric & Mfg. Co.
   Department and hardware stores

71. Fay electric floor machine, Diamond model
   The Fay Co.
   $65.00. Department, furniture and hard
   ware stores

72. Hamilton Beach vacuum cleaner, model 8
   Hamilton Beach Mfg. Co. Subsidiary
   Scovill Mfg. Co.
   $34.75. Department, furniture and hard
   ware stores

73. Silver Streak carpet sweeper
   Bissell Carpet Sweeper Co.
   $5.00. Department, furniture and hard
   ware stores

74. The Conover electric dishwasher
   The Conover Co.
   $160.00. Department stores

75. Health scale number 711
   Hanson Scale Co.
   $12.95. Department and hardware stores

76. Toastmaster, automatic electric toaster
   Waters-Genter Co. Division of McGraw
   Electric Co.
   $85.00. Tumbridge Sales Corp., N. Y.

77. Wafflemaster, automatic electric waffle
   baker
   Waters-Genter Co. Division of McGraw
   Electric Co.
   $85.00. Tumbridge Sales Corp., N. Y.

78. Range, BG-1, with 4 glass coffee machines
   The Silex Co.
   $56.95. E. B. Latham & Co., New York

79. Tenket
   The Silex Co.
   $1.25. Department and hardware stores

80. Cafex
   The Silex Co.
   $2.95. Department and hardware stores

81. Door knob and lock
   P. & F. Corbin
   Howe & Lescaze, designers
   $14.75

82. Door knob and lock
   P. & F. Corbin
   $13.00

83. Loose joint hinges
   P. & F. Corbin
   $4.50 a pair

84. Olive hinges
   P. & F. Corbin
   $3.15 a pair

85. Yale Junior Lock
   Yale & Towne Mfg. Co.
   $69. Hardware stores

86. Dictaphone, model 12
   Dictaphone Corp.
   Stanford Briggs, designer
   $200.00

87. National cash register, model 1934
   The National Cash Register Co.
   $325.00

88. Tulip drinking cup dispenser, equipped with
   aluminum tube for airplane, railroad
   and steamship service
   Lily-Tulip Cup Corp.
   $3.00

89. Tulip soda cup dispenser
   Lily-Tulip Cup Corp.
   $6.85

90. Grain of wheat lamp
   Westinghouse Electric & Mfg. Co.

91. Automobile tail-light lamp
   Westinghouse Electric & Mfg. Co.

92. Automobile head-light lamp
   Westinghouse Electric & Mfg. Co.

93. 10 W. 5-11 lamp
   Westinghouse Electric & Mfg. Co.

94. 100 W. 7-8 lamp
   Westinghouse Electric & Mfg. Co.
HOUSEHOLD AND OFFICE EQUIPMENT—Continued

97. 300 W. T-10 lamp
Westinghouse Electric & Mfg. Co.

98. 500 W. T-20 lamp
Westinghouse Electric & Mfg. Co.

99. 250 W. G-30 lamp
Westinghouse Electric & Mfg. Co.

100. 1000 W. G-40 lamp
Westinghouse Electric & Mfg. Co.

101. 5000 W. bipost base lamp
Westinghouse Electric & Mfg. Co.

102. 10,000 W. lamp
Westinghouse Electric & Mfg. Co.

3. KITCHENWARE

105. Wear-Ever steam jacketed kettle
The Aluminum Cooking Utensil Co.
$236.00

106. Stock pot, Staybrite nonoxyd metalware
L. D. Cahn Co.
$47.00

107. Stock pots, rustless steel
Polar Ware Co.
$36.00 to $50.00

108. Wear-Ever stock pots
The Aluminum Cooking Utensil Co.
$6.50 to $12.15

109. Bain Marie pots, rustless steel
Polar Ware Co.
$36.00 to $65.00

110. Hotel pan, rustless steel
Polar Ware Co.
$5.10

111. Wear-Ever hotel sauté pans
The Aluminum Cooking Utensil Co.
$3.30 to $4.45

112. Crusader hotel sauce pans
Lalance & Grosjean Mfg. Co.
$6.70 to $25.00

113. Crusader hotel ladles
Lalance & Grosjean Mfg. Co.
$1.08 to $4.45

114. Sauce pan, Staybrite nonoxyd metalware
L. D. Cahn Co.
$10.00

115. Coffee urn cylinder, Staybrite nonoxyd metalware
L. C. Cahn Co.
$27.00

116. Coffee urn cup, rustless steel
Polar Ware Co.
$6.00

117. Crusader hotel ladles
Lalance & Grosjean Mfg. Co.
$1.08 to $4.45

118. Wear-Ever bakers’ mixing bowl
The Aluminum Cooking Utensil Co.
$4.85

119. Crusader bakers’ bowls
Lalance & Grosjean Mfg. Co.
$2.50 to $6.75

120. Wear-Ever food containers
The Aluminum Cooking Utensil Co.
93¢ to $3.55. Department stores

121. Wear-Ever food bowls
The Aluminum Cooking Utensil Co.
50¢ to 65¢. Department stores

122. Crusader pail
Lalance & Grosjean Mfg. Co.
$1.25. Department stores

123. Crusader malted milk shaker
Lalance & Grosjean Mfg. Co.
$4.15. Department stores

124. Solid ladle, Staybrite nonoxyd metalware
L. D. Cahn Co.
$2.25

125. Dipper
Polar Ware Co.
$7.50

126. Apple cup
Polar Ware Co.
$1.00

127. Frying pans
Polar Ware Co.
$5.00 and $6.00

128. Frying pan, Staybrite nonoxyd metalware
L. D. Cahn Co.
$4.25
KITCHENWARE—Continued

*129. French fryers
Revere Copper & Brass Inc. Rome
Manufacturing Division
$1.80 and $2.00. Department stores

130. Skillet
Revere Copper & Brass Inc. Rome
Manufacturing Division
$2.00. Department stores

*131. Stewpans, black enamel
Imported by Markt & Hammacher
$0.75 to $1.35. Lewis & Conger

132. Saucepans
Revere Copper & Brass Inc. Rome
Manufacturing Division
$1.80 to $2.20. Department stores

133. Mixing bowls, black enamel
Imported by Markt & Hammacher
$2.15. Lewis & Conger

134. Mixing bowls
Polar Ware Co.
$3.90 to $8.00

*135. Mixing bowls
Revere Copper & Brass Inc. Rome
Manufacturing Division
90¢ to $1.30. Department stores

136. Crusader cup
Lalance & Grosjean Mfg. Co.
$1.84. Department stores

*137. Wear-Ever round cake pans
The Aluminum Cooking Utensil Co.
30¢ to 45¢. Department stores

138. Wear-Ever ring cake mold
The Aluminum Cooking Utensil Co.
$1.00. Department stores

139. Wear-Ever fruit press
The Aluminum Cooking Utensil Co.
93¢. Department stores

140. Wear-Ever tea kettle
The Aluminum Cooking Utensil Co.
Larelle V. A. Guild, designer
$2.95. Department stores

141. Wear-Ever drip coffee pot
The Aluminum Cooking Utensil Co.
Larelle V. A. Guild, designer
$1.65. Department stores

*142. Wear-Ever griddle
The Aluminum Cooking Utensil Co.
$3.95. Department stores

*143. Beverage tumblers, rustless steel
Polar Ware Co.
90¢

*144. Bathroom tumblers, rustless steel
Polar Ware Co.
$1.75

*145. Imported cook's knives
Lent by Lewis & Conger
$2.34 and $3.25

*146. Imported cook's fork
Lent by Lewis & Conger
$1.88

*147. Imported slicers
Lent by Lewis & Conger
$2.00 to $4.50

148. Square coffee jars
Owens-Illinois Glass Co.

*149. Nestrite paper containers
Lily-Tulip Cup Corp.

150. Nestrite paper tubs
Lily-Tulip Cup Corp.

*151. Squat Nestrite containers
Lily-Tulip Cup Corp.

Hospital Supplies

*152. Needle box, rustless steel
Polar Ware Co.
$3.70

153. Serum cup
The Aluminum Cooking Utensil Co.
20¢

154. Sputum cup with hinged cover, Staybrite nonoxyd metalware
L. D. Cahn Co.
$3.00

*155. Graduated measure, Staybrite nonoxyd metalware
L. D. Cahn Co.
$5.50

156. Sponge bowl, rustless steel
Polar Ware Co.
$2.00
4. HOUSE FURNISHINGS AND ACCESSORIES

157. Dinner knives, Covington Plain pattern
The Gorham Co.
A reproduction of an old English design by W. C. Codman
$41.00 per dozen. Silversmiths and department stores

158. Dinner forks, Covington Plain pattern
The Gorham Co.
A reproduction of an old English design by W. C. Codman
$50.00 per dozen. Silversmiths and department stores

159. Teaspoons, Covington Plain pattern
The Gorham Co.
A reproduction of an old English design by W. C. Codman
$21.00 per dozen. Silversmiths and department stores

160. Dessert spoons, Covington Plain pattern
The Gorham Co.
A reproduction of an old English design by W. C. Codman
$37.00 per dozen. Silversmiths and department stores

161. Dessert knives, Covington Plain pattern
The Gorham Co.
A reproduction of an old English design by W. C. Codman
$37.00 per dozen. Silversmiths and department stores

162. Dessert forks, Covington Plain pattern
The Gorham Co.
A reproduction of an old English design by W. C. Codman
$35.00 per dozen. Silversmiths and department stores

163. Coffee spoons, Covington Plain pattern
The Gorham Co.
A reproduction of an old English design by W. C. Codman
$14.00 per dozen. Silversmiths and department stores

164. Dinner knives, Dolly Madison pattern
The Gorham Co.
Original early American design by A. H. Staf
$49.00 per dozen. Silversmiths and department stores

165. Dinner forks, Dolly Madison pattern
The Gorham Co.
Original early American design by A. H. Staf
$52.00 per dozen. Silversmiths and department stores

166. Teaspoons, Dolly Madison pattern
The Gorham Co.
Original early American design by A. H. Staf
$21.00 per dozen. Silversmiths and department stores

167. Dessert spoons, Dolly Madison pattern
The Gorham Co.
Original early American design by A. H. Staf
$46.00 per dozen. Silversmiths and department stores

168. Dessert knives, Dolly Madison pattern
The Gorham Co.
Original early American design by A. H. Staf
$39.00 per dozen. Silversmiths and department stores

169. Dessert forks, Dolly Madison pattern
The Gorham Co.
Original early American design by A. H. Staf
$44.00 per dozen. Silversmiths and department stores

170. Coffee spoons, Dolly Madison pattern
The Gorham Co.
Original early American design by A. H. Staf
$12.00 per dozen. Silversmiths and department stores

171. Windsor teaspoons, chromium
Lent by Lewis & Conger
25¢ each

172. Windsor dessert spoons, chromium
Lent by Lewis & Conger
42¢ each

173. Windsor table spoons, chromium
Lent by Lewis & Conger
48¢ each

174. Crystal bread and butter plate
Fostoria Glass Co.
$4.00 per dozen. Department stores and gift shops

175. Crystal salad plate
Fostoria Glass Co.
$5.00 per dozen. Department stores and gift shops

176. Crystal dinner plate
Fostoria Glass Co.
$7.00 per dozen. Department stores and gift shops
177. Crystal service plate
   Fostoria Glass Co.
   $15.00 per dozen. Department stores and gift shops

178. White porcelain bread and butter plate
   Lenox Inc.
   $13.25 per dozen. Department stores and gift shops

179. White porcelain luncheon plate
   Lenox Inc.
   $16.00 per dozen. Department stores and gift shops

180. White porcelain dinner plate
   Lenox Inc.
   $19.00 per dozen. Department stores and gift shops

181. White porcelain service plate
   Lenox Inc.
   $21.00 per dozen. Department stores and gift shops

182. White porcelain sandwich or cake plate
   Lenox Inc.
   $3.50. Department stores and gift shops

183. Tumblers, crystal with sham bottoms
   Fostoria Glass Co.
   $3.50 per dozen. Department stores and gift shops

184. Tumblers, crystal with sham bottoms
   Fostoria Glass Co.
   $4.50 per dozen. Department stores and gift shops

185. Tumblers, blue glass
   Fostoria Glass Co.
   $2.50 per dozen. Department stores and gift shops

186. Tumblers, burgundy glass
   Fostoria Glass Co.
   $2.50 per dozen. Department stores and gift shops

187. Liqueur tumblers, crystal with sham bottoms
   Fostoria Glass Co.
   $2.00 per dozen. Department stores and gift shops

188. Cocktail glass
   Corning Glass Works—Steuben Division
   Walter Dorwin Teague, designer
   $2.00 each. Steuben Glass, Inc., 748 Fifth Avenue

189. Old-Fashioned cocktail glass
   Corning Glass Works—Steuben Division
   Walter Dorwin Teague, designer
   $2.00 each. Steuben Glass, Inc., 748 Fifth Avenue

190. Whisky glasses
   Fostoria Glass Co.
   $3.50 per dozen. Department stores and gift shops

191. Baccarat ale glass
   Lent by Lewis & Conger
   $8.50 per dozen

192. Baccarat ale glass
   Lent by Lewis & Conger
   $10.00 per dozen

193. Baccarat champagne tumbler
   Lent by Lewis & Conger
   $5.50 per dozen

194. Baccarat claret glass
   Lent by Lewis & Conger
   $9.75 per dozen

195. Baccarat cocktail glass
   Lent by Lewis & Conger
   $9.75 per dozen

196. Baccarat cordial glass
   Lent by Lewis & Conger
   $8.75 per dozen

197. Baccarat goblet
   Lent by Lewis & Conger
   $14.75 per dozen

198. Baccarat sherry glass
   Lent by Lewis & Conger
   $10.50 per dozen

199. Baccarat tumbler
   Lent by Lewis & Conger
   $7.50 per dozen

200. Baccarat whisky glass
   Lent by Lewis & Conger
   $5.50 per dozen

201. Baccarat whisky and soda glass
   Lent by Lewis & Conger
   $6.25 per dozen

202. Holland glass brandy inhalers
   Lent by Ovington’s
   $18.00 per dozen

203. Cocktail glasses
   Lent by Ovington’s

204. Tumblers
   Lent by Carol Stupell

205. Martini mixer
   Lent by Ovington’s
$3.50
HOUSE FURNISHINGS AND ACCESSORIES—Continued

206. Condiment bottles
Russel Wright Studio
Russel Wright, designer
$2.00 each. Department stores and gift shops

207. Salad bowl, wood
Russel Wright Studio
Russel Wright, designer
$3.30 each. Department stores and gift shops

208. Berry bowl, wood
Russel Wright Studio
Russel Wright, designer
$3.00 each. Department stores and gift shops

209. Small berry bowls, wood
Russel Wright Studio
Russel Wright, designer
$1.60 each. Department stores and gift shops

210. Baccarat fingerbowl and plate
Lent by Lewis & Conger
$33.00 per dozen

211. Cream jars
Owens-Illinois Glass Co.

212. Oblong perfume bottles
Owens-Illinois Glass Co.

214. Taper round bottles
Owens-Illinois Glass Co.

215. Jar with cover
Owens-Illinois Glass Co.

216. Wide-mouthed French squares
Owens-Illinois Glass Co.

217. Chromium tray
The Bingham Stamping & Tool Co.
R. Aberli Jr., 225 Fifth Avenue
$1.75

218. Copper tray
The Bingham Stamping & Tool Co.
R. Aberli Jr., 225 Fifth Avenue
$1.50

219. Serving tray, chromium
Chase Brass & Copper Co., Inc. Specialty Sales Division
$6.00. Department stores and gift shops

220. Serving trays, copper
Chase Brass & Copper Co., Inc. Specialty Sales Division
$6.00. Department stores and gift shops

221. Tray, chromium
Chase Brass & Copper Co., Inc. Specialty Sales Division
Walter Von Nessen, designer
$4.00. Department stores and gift shops

222. Tray, copper
Chase Brass & Copper Co., Inc. Specialty Sales Division
Walter Von Nessen, designer
$4.00. Department stores and gift shops

223. Flower bowl, copper
Chase Brass & Copper Co., Inc. Specialty Sales Division
Walter Von Nessen, designer
$8.00. Department stores and gift shops

224. Pretzel bowl, copper
Chase Brass & Copper Co., Inc. Specialty Sales Division
$2.00. Department stores and gift shops

225. Pretzel bowl, chromium
Chase Brass & Copper Co., Inc. Specialty Sales Division
$2.00. Department stores and gift shops

226. Bowl
Corning Glass Works—Steuben Division
Frederick Carder, designer
$6.00. Steuben Glass, Inc., 748 Fifth Avenue

227. Bowl
Corning Glass Works—Steuben Division
Walter Dorwin Teague, designer
Steuben Glass, Inc., 748 Fifth Avenue

228. Bowl
Corning Glass Works—Steuben Division
Walter Dorwin Teague, designer
$4.25. Steuben Glass, Inc., 748 Fifth Avenue

229. Large crystal plate, 16" diameter
Fostoria Glass Co.
$3.50. Department stores and gift shops

230. Bowl, wood
Russel Wright Studio
Russel Wright, designer
$5.00. Department stores and gift shops

231. Copper bowls
Revere Copper & Brass Inc., Rome Mfg. Division
$0.50 and 75c. Department stores and gift shops

232. White porcelain vases
Lenox Inc.
$1.50, $2.50, $3.00. Department stores and gift shops

233. Crystal vases
Fostoria Glass Co.
$2.50 and $3.00. Department stores and gift shops
234. Vase, square  
Corning Glass Works—Steuben Division  
Frederick Carder, designer  
$3.50. Steuben Glass, Inc., 748 Fifth Ave.

235. Vase, spherical  
Corning Glass Works—Steuben Division  
Walter Dorwin Teague, designer  
$6.50. Steuben Glass, Inc., 748 Fifth Ave.

236. Vase, rectangular  
Corning Glass Works—Steuben Division  
Walter Dorwin Teague, designer  
$5.00. Steuben Glass, Inc., 748 Fifth Ave.

237. Vases  
Corning Glass Works—Steuben Division  
Walter Dorwin Teague, designer  
$2.75 to $3.75. Steuben Glass, Inc., 748 Fifth Avenue

238. Black glass vases  
Corning Glass Works—Steuben Division  
Walter Dorwin Teague, designer  
$2.75 to $3.75. Steuben Glass, Inc., 748 Fifth Avenue

239. Plates, chromium and copper  
Chase Brass & Copper Co., Inc. Specialty Sales Division  
Department stores and gift shops

240. Centerpiece  
Corning Glass Works—Steuben Division  
Walter Dorwin Teague, designer  
$30.00. Steuben Glass, Inc., 748 Fifth Avenue

241. Ash tray  
Lent by Arundell Clarke Ltd.  
$2.50

242. Ash tray  
Corning Glass Works—Steuben Division  
Frederick Carder, designer  
$7.50. Steuben Glass, Inc., 748 Fifth Ave.

243. Ash tray set  
Fostoria Glass Co.  
$6.00 per dozen. Department stores and gift shops

244. Ash bowl, stainless steel  
Platinel Inc.  
$9.50

245. Ash tray, copper  
Revere Copper & Brass Inc. Rome Mfg. Division  
$2.50. Department stores and gift shops

246. Ash tray, chromium  
Kurt Versen  
$1.60

247. Dunhill’s Bruyère straight grain pipe  
Alfred Dunhill of London, Inc.  
$50.00. Dunhill shops, tobacco shops and department stores

248. Meerschaum pipe  
Alfred Dunhill of London, Inc.  
$25.00. Dunhill shops, tobacco shops and department stores

249. Tall wafer cigarette lighter  
Alfred Dunhill of London, Inc.  
$10.00. Dunhill shops, tobacco shops and department stores

250. Giant cigarette lighter  
Alfred Dunhill of London, Inc.  
$15.00. Dunhill shops, tobacco shops and department stores

251. Ball cigarette lighter  
Alfred Dunhill of London, Inc.  
$15.00. Dunhill shops, tobacco shops and department stores

252. Cigar case  
Alfred Dunhill of London, Inc.  
$22.50. Dunhill shops, tobacco shops and department stores

253. Bomb Rumidor  
Distillers Products Corp.  
$7.00. Department stores and tobacco shops

254. Lektrolite cigarette lighter, Cylinda model “B”, sterling silver  
Platinum Products Co.  
$12.00. Department stores and gift shops

255. Lektrolite cigarette lighter and pencil, sterling silver  
Platinum Products Co.  
$25.00. Department stores and gift shops

256. Cigarette box  
Corning Glass Works—Steuben Division  
Frederick Carder, designer  
$4.50. Steuben Glass, Inc., 748 Fifth Ave.

257. Inkstand and calendar  
I. S. Pertofsky Howe & Lescaze, designers  
$32.00. Howe & Lescaze, architects

258. Braquette picture frame, portrait type  
Design Engineers, Inc.  
Nathan George Horwitt, designer  
$2.50. Eastman Kodak stores

259. Braquette picture frame, standard type  
Design Engineers, Inc.  
Nathan George Horwitt, designer  
$2.00. Eastman Kodak stores
HOUSE FURNISHINGS AND ACCESSORIES—Continued

260. Bomb flashlight
Chase Brass & Copper Co., Inc. Specialty Sales Division
$1.00. Department stores and gift shops

265. Luxmir Shaving Mirror
Lent by Ovington's
$12.50

266. Imported chromium scent bottles in leather case
Lent by Saks-Fifth Avenue
$7.50

267. Man's fitted case
Lent by Saks-Fifth Avenue
$6.50

268. Billiard balls
Lent by Saks-Fifth Avenue
$7.50

269. Silverice (for chilling drinks)
Lent by Saks-Fifth Avenue
$2.50 for box of six

270. Electric clock
Herman Miller Clock Co. Gilbert Rohde, designer
$16.50. Department stores and gift shops

271. Westclox handbag watch, bakelite case
Western Clock Co. De Vaulchier & Blow, designers
$2.95. Department stores, gift shops, drug stores

272. Magnetric clock
Jaeger Watch Co. Jaeger Watch Co., designers, in collaboration with the Art and Color section of the Fisher Body Corp. for General Motors

273. Desk lamp
Kurt Versen Howe & Lescaze, designers
$31.00

274. Ceiling fixture with white opal glass bowl
Kurt Versen
$14.00

275. Pendant sphere lighting fixtures
Kurt Versen
$15.00 to $34.00

276. Tubular wall bracket
Kurt Versen
$22.00

277. Wall bracket light with cylindrical bowl
Kurt Versen
$17.00

278. Wall bracket light with hemispherical bowl
Kurt Versen
$19.00

279. Chair
Thonet Bros., Inc. Marcel Breuer, designer
$20.50

280. Chair
Thonet Bros., Inc. Le Corbusier, designer
$63.00

281. Nest tables
Thonet Bros., Inc.
$22.50

282. Beta chair
The Howell Co. (Brown & Nightingale, New York distributors) Nathan George Horwitt, designer
$30.00. Department and furniture stores

283. Chair, number 444
The Howell Co. (Brown & Nightingale, New York distributors)
$40.00. Department and furniture stores

284. Lounge chair, number 439
The Howell Co. (Brown & Nightingale, New York distributors)
$50.00. Department and furniture stores

285. Chair, number 477
The Howell Co. (Brown & Nightingale, New York distributors)
$30.00. Department and furniture stores

286. Chair, number 441
The Howell Co. (Brown & Nightingale, New York distributors)
$20.00. Department and furniture stores
5. SCIENTIFIC INSTRUMENTS

288. Johansson third measuring instrument, used in 1896
Ford Motor Co. (Standard Gage Co.)
Louis C. Eitzen Co., New York

*289. Vernier depth gauge number 600
Brown & Sharpe of New York, Inc.
$16.65. Hardware stores

290. Rule depth gauge number 616
Brown & Sharpe of New York, Inc.
$2.00. Hardware stores

*291. Graduated rod depth gauge number 614
Brown & Sharpe of New York, Inc.
$4.50. Hardware stores

*292. Plain English micrometer number 8
Brown & Sharpe of New York, Inc.
$9.50. Hardware stores

*293. Inside micrometer number 263
Brown & Sharpe of New York, Inc.
$7.50. Hardware stores

*294. Outside firm joint caliper number 821
Brown & Sharpe of New York, Inc.
60 cents. Hardware stores

*295. Caliper square with adjusting screw number 560
Brown & Sharpe of New York, Inc.
$10.20. Hardware stores

296. Caliper rule number 391
Brown & Sharpe of New York, Inc.
$5.00. Hardware stores

297. Slide caliper rule number 385
Brown & Sharpe of New York, Inc.
$2.50. Hardware stores

298. Pocket slide caliper rule number 388
Brown & Sharpe of New York, Inc.
$4.00. Hardware stores

299. Flexible stainless steel rule number 356
Brown & Sharpe of New York, Inc.
$1.35. Hardware stores

300. Narrow tempered steel rule number 303
Brown & Sharpe of New York, Inc.
90¢. Hardware stores

301. Rule with slide number 380
Brown & Sharpe of New York, Inc.
$2.00. Hardware stores

302. Hardened and ground steel parallel number 920
Brown & Sharpe of New York, Inc.
$4.90. Hardware stores

303. Hardened steel straight edge number 527
Brown & Sharpe of New York, Inc.
$1.00. Hardware stores

304. Hardened cast steel try squares number 540
Brown & Sharpe of New York, Inc.
$3.60 to $34.50. Hardware stores

305. Adjustable square complete number 551
Brown & Sharpe of New York, Inc.
$4.20. Hardware stores

306. Graduated steel square number 544
Brown & Sharpe of New York, Inc.
$3.90. Hardware stores

*307. Diemakers' square complete number 552
Brown & Sharpe of New York, Inc.
$5.50. Hardware stores

308. Indicator number 738
Brown & Sharpe of New York, Inc.
$10.00. Hardware stores

309. Speed indicator number 748
Brown & Sharpe of New York, Inc.
$6.75. Hardware stores

*310. Vest pocket speed indicator number 746
Brown & Sharpe of New York, Inc.
$5.50. Hardware stores

*311. 29 degrees worm thread tool gauge number 577
Brown & Sharpe of New York, Inc.
$7.50. Hardware stores

312. Dial gauge number 726
Brown & Sharpe of New York, Inc.
$10.00. Hardware stores

*313. Bevel protractor number 493
Brown & Sharpe of New York, Inc.
$10.50. Hardware stores

*314. Laboratory microscope ESA-105
Carl Zeiss, Inc.
$159.00

315. Research microscope, model L
Carl Zeiss, Inc.
$573.80 (with objectives)

316. Binocular microscope XB
Carl Zeiss, Inc.
$183.05

317. Iris cylinder diaphragm
Carl Zeiss, Inc.
$6.50

318. Abbe apertometer
Carl Zeiss, Inc.
$52.00
319. Short magnifier lamp  
Carl Zeiss, Inc.  
$13.15

320. Plankton vessel  
Carl Zeiss, Inc.  
$2.00

321. Simplified attachable mechanical stage  
Carl Zeiss, Inc.  
$18.00

322. Ramsden screw micrometer  
Carl Zeiss, Inc.  
$44.00

323. Focusing microscope for photo-engravers  
Carl Zeiss, Inc.  
$55.00

324. Folding aplanatic magnifiers  
Carl Zeiss, Inc.  
$8.15 each

325. Aplanatic magnifiers  
Carl Zeiss, Inc.  
$6.90 each; lens ring and handle, $1.90

326. Diaphot  
Carl Zeiss, Inc.  
$2.20

327. Stereoscope  
Carl Zeiss, Inc.  
$40.00

328. Vertical telescope view finder (for Contax camera)  
Carl Zeiss, Inc.  
$15.40

329. Telescope, 30 mm.  
Carl Zeiss, Inc.  
$1,166.25

330. Hand spectroscope, model A  
Carl Zeiss, Inc.  
$18.00

331. Cube of didymium glass  
Carl Zeiss, Inc.  
$5.00

332. Blood sugar colorimeter  
Carl Zeiss, Inc.  
$27.50

333. Sugar and oil refractometer  
Carl Zeiss, Inc.  
$211.20

334. Pulfrich refractometer  
Carl Zeiss, Inc.  
$458.40

335. Juerst ebulliometer  
Eimer & Amend  
$75.00

336. MacMichael viscosimeter  
Eimer & Amend  
$210.00

337. Small vertex refractionometer  
Carl Zeiss, Inc.  
$115.00

338. Demonstration attachment for cystoscopes  
Carl Zeiss, Inc.  
$90.00

339. Polariscope with circular scale  
Carl Zeiss, Inc.  
$186.25

340. Pocket polarimeter  
Carl Zeiss, Inc.  
$83.25

341. Triple mirror for light signals  
Carl Zeiss, Inc.  

342. Prism  
Holophane Co.

343. Controlenses  
Holophane Co.

344. Adjustable curve number 2160  
Eugene Dietzgen Co., Inc.  
$2.25

345. Adjustable curve number 2161 A  
Eugene Dietzgen Co., Inc.  
$2.65

346. Wood blackboard outfit: arc, protractor, T-square, and triangle  
Eugene Dietzgen Co., Inc.  
$5.70

347. Protractor, nickel silver  
Eugene Dietzgen Co., Inc.  
$41.80

348. Protractor, steel  
Eugene Dietzgen Co., Inc.  
$10.00

349. Slide rule  
Eugene Dietzgen Co., Inc.  
$10.55

350. Pocket sight compass  
Eugene Dietzgen Co., Inc.  
$8.35

351. Short & Mason miner's compass  
Taylor Instrument Companies  
$10.00. Department, optical and hardware stores
SCIENTIFIC INSTRUMENTS—Continued

352. Brass plumb bob
   Eugene Dietzgen Co., Inc.
   $1.90

353. Mercury plumb bob number 790
   Brown & Sharpe of New York, Inc.
   $3.60. Hardware stores

354. DX Projection type ammeter
   Westinghouse Electric & Mfg. Co.

355. DX Projection type rectox voltmeter
   Westinghouse Electric & Mfg. Co.

356. PY-5 a.c. portable voltmeter
   Westinghouse Electric & Mfg. Co.

357. Stroboscopic clock motor testing board
   Westinghouse Electric & Mfg. Co.

358. Light meter
   Westinghouse Electric & Mfg. Co.

359. Dental instruments
   The S. S. White Dental Mfg. Co.

360. Dietometer
   Eimer & Amend
   $9.00

361. Torsion prescription scale number 285
   The Torsion Balance Co.
   $80.00

362. Micronax recording potentiometer
   Leeds & Northrup Co., Philadelphia
   $250.00

363. Brown indicating flowmeter number 2020
   The Brown Instrument Co., Philadelphia
   $108.75

364. Altitude barometer
   Taylor Instrument Companies
   $42.00. Department, optical and hardware stores

365. Anemometer
   Taylor Instrument Companies
   $50.00. Department, optical and hardware stores

366. X-ray unit, model “B”, stationary type
   Alltec Dental Mfg. Co., Inc.
   $820.00
### 6. LABORATORY GLASS AND PORCELAIN

<table>
<thead>
<tr>
<th>Item</th>
<th>Description</th>
<th>Price Range</th>
<th>Source</th>
</tr>
</thead>
<tbody>
<tr>
<td>367</td>
<td>Crystallizing dishes</td>
<td>Corning Glass Works</td>
<td>45¢ to $1.25. Eimer &amp; Amend</td>
</tr>
<tr>
<td>368</td>
<td>Boiling flasks</td>
<td>Corning Glass Works</td>
<td>57¢ to $3.30. Eimer &amp; Amend</td>
</tr>
<tr>
<td>369</td>
<td>Boiling flasks with wicker necks</td>
<td>Corning Glass Works</td>
<td>$1.35 and $1.55. Eimer &amp; Amend</td>
</tr>
<tr>
<td>370</td>
<td>Erlemeyer flasks</td>
<td>Corning Glass Works</td>
<td>$1.35 and $1.55. Eimer &amp; Amend</td>
</tr>
<tr>
<td>371</td>
<td>Beakers</td>
<td>Corning Glass Works</td>
<td>18¢ to 50¢. Eimer &amp; Amend</td>
</tr>
<tr>
<td>372</td>
<td>Reagent bottles</td>
<td>Corning Glass Works</td>
<td>65¢ to $3.00. Eimer &amp; Amend</td>
</tr>
<tr>
<td>373</td>
<td>Cylindrical jars</td>
<td>Corning Glass Works</td>
<td>$1.20 to $10.00. Eimer &amp; Amend</td>
</tr>
<tr>
<td>374</td>
<td>Hydrometer jars</td>
<td>Eimer &amp; Amend</td>
<td>40¢ to $2.75</td>
</tr>
<tr>
<td>375</td>
<td>Battery jars</td>
<td>Eimer &amp; Amend</td>
<td>$4.70 to $13.25</td>
</tr>
<tr>
<td>376</td>
<td>Battery jars</td>
<td>Corning Glass Works</td>
<td>$1.15 to $2.60. Eimer &amp; Amend</td>
</tr>
<tr>
<td>377</td>
<td>Petri dishes</td>
<td>Eimer &amp; Amend</td>
<td>24¢ to 70¢</td>
</tr>
<tr>
<td>378</td>
<td>Moist chambers</td>
<td>Eimer &amp; Amend</td>
<td>$1.40 and $1.80</td>
</tr>
<tr>
<td>379</td>
<td>Stender dishes</td>
<td>Eimer &amp; Amend</td>
<td>50¢ to $2.00</td>
</tr>
<tr>
<td>380</td>
<td>Flask 500 cc</td>
<td>Eimer &amp; Amend</td>
<td>$1.85</td>
</tr>
<tr>
<td>381</td>
<td>Measuring flask</td>
<td>Eimer &amp; Amend</td>
<td>$1.60</td>
</tr>
<tr>
<td>382</td>
<td>Measuring cylinder 500 cc</td>
<td>Eimer &amp; Amend</td>
<td>$4.25</td>
</tr>
<tr>
<td>383</td>
<td>Weighing bottles</td>
<td>Eimer &amp; Amend</td>
<td>30¢ to $1.60</td>
</tr>
<tr>
<td>384</td>
<td>Shaking flask</td>
<td>Eimer &amp; Amend</td>
<td>$1.20</td>
</tr>
<tr>
<td>385</td>
<td>B jar</td>
<td>Eimer &amp; Amend</td>
<td>$6.00</td>
</tr>
<tr>
<td>386</td>
<td>Bell jar and frame</td>
<td>Eimer &amp; Amend</td>
<td>$16.00</td>
</tr>
<tr>
<td>387</td>
<td>Generating bottle</td>
<td>Eimer &amp; Amend</td>
<td>$2.35</td>
</tr>
<tr>
<td>388</td>
<td>Culture flask</td>
<td>Corning Glass Works</td>
<td>65¢. Eimer &amp; Amend</td>
</tr>
<tr>
<td>389</td>
<td>Roux culture flask</td>
<td>Corning Glass Works</td>
<td>65¢. Eimer &amp; Amend</td>
</tr>
<tr>
<td>390</td>
<td>Round bottom boiling flask, 72 litres</td>
<td>Corning Glass Works</td>
<td>$25.00. Eimer &amp; Amend</td>
</tr>
<tr>
<td>391</td>
<td>Solution bottle</td>
<td>Corning Glass Works</td>
<td>$4.00. Eimer &amp; Amend</td>
</tr>
<tr>
<td>392</td>
<td>Watch glass</td>
<td>Eimer &amp; Amend</td>
<td>60¢</td>
</tr>
<tr>
<td>393</td>
<td>Scorifiers</td>
<td>Eimer &amp; Amend</td>
<td>60¢</td>
</tr>
<tr>
<td>394</td>
<td>Retort</td>
<td>Corning Glass Works</td>
<td>$3.60. Eimer &amp; Amend</td>
</tr>
<tr>
<td>395</td>
<td>Capsules</td>
<td>Coors Porcelain Co.</td>
<td>15¢ to 25¢. Eimer &amp; Amend</td>
</tr>
<tr>
<td>396</td>
<td>Rings</td>
<td>Coors Porcelain Co.</td>
<td>$9.95. Eimer &amp; Amend</td>
</tr>
</tbody>
</table>
LABORATORY GLASS AND PORCELAIN—Continued

*397. Dish
Coors Porcelain Co.
$1.60. Eimer & Amend

*398. Beakers
Coors Porcelain Co.
55¢ to $9.00. Eimer & Amend

399. Petri covers
Coors Porcelain Co.
15¢ and 20¢. Eimer & Amend

400. Jar
Coors Porcelain Co.
$129.00. Eimer & Amend

401. Sample oil bottles
Owens-Illinois Glass Co.

402. Jar and cover
Eimer & Amend
$2.25
1. Industrial Units
1

Bearing spring
American Steel & Wire Co.
Subsidiary United States Steel Corp.

2

Section of spring
American Steel & Wire Co.
Subsidiary United States Steel Corp.
Section of wire rope 3 1/2" in diameter
American Steel & Wire Co.
Subsidiary United States Steel Corp.

Typewriter carriage spring and motor spring
American Steel & Wire Co.
Subsidiary United States Steel Corp.
Self-aligning ball bearing
SKF Industries
Outboard propeller
Aluminum Company of America
Gasoline pumps
Standard Oil Company of Ohio
2. Household and Office Equipment
Electrol-Kewanee heating unit, model 10
Electrol, Inc.
Gerth & Gerth, designers
$857.00
Lavatory panel of the Arco panel unit system, equipped with special tubular fittings

The Accessories Co., Inc.
Division of American Radiator Co.

George Sakier, designer

Panel: $60.00; Standard Sanitary lavatory: $50.00.
Licensed plumbers
Electrochef range, model B-2
Electromaster Inc., Detroit, Michigan
Emil Piron, designer
$110.00
Streamline Monel metal sink
The International Nickel Co., Inc.
Gustav Jensen, designer
$193.50. Licensed plumbers

Electric plate warmer, White House Line
Janes & Kirtland, Inc.
$100.00. Department stores
Fay electric floor machine, Diamond model
The Fay Co.
$65.00. Department, furniture and hardware stores

Hamilton Beach vacuum cleaner, model 8
Hamilton Beach Mfg. Co.
Subsidiary Scovill Mfg. Co.
$34.75. Department, furniture and hardware stores
Health scale, number 711
Hanson Scale Co.
$12.95. Department and hardware stores

Silver Streak carpet sweeper
Bissell Carpet Sweeper Co.
$5.00. Department, furniture and hardware stores
Flush valve
Scovill Mfg. Co.
Plumbers' Brass Goods Division
Licensed plumbers

Niedecken mixer faucet
Hoffmann & Billings Mfg. Co.
$25.00 Henry Stein, 50 Cliff St.
Wafflemaster, automatic electric waffle baker
Waters-Genter Co.
Division of McGraw Electric Co.
$85.00. Tumbridge Sales Corp.

Toastmaster, automatic electric toaster
Waters-Genter Co.
Division of McGraw Electric Co.
$85.00. Tumbridge Sales Corp.
87
Dictaphone, model 12
Dictaphone Corp.
$200.00. Dictaphone Sales Corp.

88
National Cash Register, model 1934
The National Cash Register Co.
$325.00
York round door chest, model 480
York Safe and Lock Co.

85
Yale junior lock
Yale & Towne Mfg. Co.
60¢ Hardware stores
Range with 4 glass coffee machines
The Silex Co.
$56.95.  E. B. Latham & Co.

Door knob and lock
P. & F. Corbin
Howe & Lescaze, designers
$14.75
3. Kitchenware

Illustrations
Crusader hotel sauce pots
Lalance & Grosjean Mfg. Co.
$14.55 to $31.65.
Crusader hotel ladles
Lalance & Grosjean Mfg. Co.
$1.08 to $4.45

Crusader bakers' bowl
Lalance & Grosjean Mfg. Co.
$25.00 to $64.75
Stewpans
Imported by Markt & Hammacher
75¢ to $1.35. Lewis & Conger

Mixing bowls
Revere Copper & Brass Inc.
Rome Mfg. Division
90¢ to $1.30. Department stores
155
Graduated measures.
Staybrite nonoxyd metalware
L. D. Cahn Co.

132
Saucepan
Revere Copper & Brass Inc.
Rome Mfg. Division
$1.80 to $2.20, Department stores
Beverage and bathroom tumblers, rustless steel
Polar Ware Co.
90¢ and $1.65

Nestrite paper containers
Lily-Tulip Cup Corp.
145, 147
Imported cooks' knives and slicers
Lewis & Conger
$2.00 to $4.50

146
Imported cooks' fork
Lewis & Conger
$1.33

152
Needle box, rustless steel
Polar Ware Co.
$3.70
Wear-Ever round cake pans
The Aluminum Cooking Utensil Co.
30% to 50%
Department stores

Wear-Ever tea kettle
The Aluminum Cooking Utensil Co.
Lurelle V. A. Guild, designer
$2.95. Department stores
Wear-Ever food containers
The Aluminum Cooking Utensil Co.
$0.93 to $3.55. Department stores

Wear-Ever griddle
The Aluminum Cooking Utensil Co.
$3.95. Department stores
4. House Furnishings and Accessories

Illustrations
Dessert spoons, knives and forks, Covington Plain pattern
The Gorham Co.
A reproduction of an old English design by W. C. Codman
Spoons and knives, $37.00 per dozen; forks, $35.00 per dozen
Silversmiths and department stores

Dessert spoons and forks, Dolly Madison pattern
The Gorham Co.
Original early American design by A. H. Staf
Spoons, $46.00 per dozen; forks, $44.00 per dozen
Silversmiths and department stores
185, 186

Tumblers, Burgundy and blue glass
Fostoria Glass Co.
$2.50 per dozen. Department stores and gift shops

171-173

Windsor chromium teaspoons, dessert spoons and table spoons
Lent by Lewis & Conger
25¢, 42¢ and 48¢ each
Jar with cover
Owens-Illinois Glass Co.
Oblong perfume bottles
Owens-Illinois Glass Co.

Cream jars and taper round bottles
Owens-Illinois Glass Co.
Vases
Corning Glass Works—Steuben Division
Walter Dorwin Teague, designer
$2.75 to $3.75. Steuben Glass, Inc., 748 Fifth Avenue

Black glass vases
Corning Glass Works—Steuben Division
Walter Dorwin Teague, designer
$2.75 to $3.75. Steuben Glass, Inc., 748 Fifth Avenue
White porcelain plates
Lenox Inc.
$13.25 to $21.00 per dozen. Department stores and gift shops

White porcelain vase
Lenox Inc.
$3.00. Department stores and gift shops
225
Pretzel bowl, chromium
Chase Brass & Copper Co., Inc. Specialty Sales Division
$2.00. Department stores and gift shops

223
Flower bowl, copper
Chase Brass & Copper Co., Inc. Specialty Sales Division
Walter Von Nessen, designer
$8.00. Department stores and gift shops
Serving tray, chromium
Chase Brass & Copper Co., Inc. Specialty Sales Division
Walter Von Nessen, designer
$4.00. Department stores and gift shops

Spherical vase
Corning Glass Works—Steuben Division
Walter Dorwin Teague, designer
$8.50. Steuben Glass, Inc., 748 5th Ave.
Wood salad bowl, berry bowl and small berry bowls
Russel Wright Studio
Russel Wright, designer
Salad bowl, $3.30; berry bowl, $3.00; small bowls, $1.60 each
Department stores and gift shops
Bowl
Corning Glass Works—Steuben Division
Walter Dorwin Teague, designer
$4.25. Steuben Glass, Inc., 748 Fifth Avenue

Bowl
Corning Glass Works—Steuben Division
Walter Dorwin Teague, designer
$42.00 (with octagonal mirror base)
269
Silver ice (for chilling drinks)
Lent by Saks-Fifth Avenue
$2.50 for box of six

268
Billiard balls
Lent by Saks-Fifth Avenue
$7.50 in leather box
Inkstand and calendar
I. S. Pertofsky
Howe & Lescaze, designers
$32.00. Howe & Lescaze, architects

Lektrolite Cylinda lighter and Lektrolite pencil lighter, sterling silver
Platinum Products Co.
Cylinda lighter, $12.00; pencil, $25.00.
Department stores and gift shops
Ash tray set
Fostoria Glass Co.
$6.00 per dozen. Department stores and gift shops

Ash tray
Lent by Arnundell Clarke, Ltd.
$2.50
242
Ash tray
Corning Glass Works—Steuken Division
Frederick Carder, designer
$7.50. Steuben Glass, Inc., 748 Fifth Avenue

256
Cigarette box
Corning Glass Works—Steuken Division
Frederick Carder, designer
$4.50. Steuben Glass, Inc., 748 Fifth Avenue
Meerschaum pipe
Alfred Dunhill of London, Inc.
$25.00. Dunhill shops, tobacco shops and department stores

Bomb Rumidor
Distillers Products Corp.
$7.00. Department stores and tobacco shops
Tall wafer lighter and ball lighter

Alfred Dunhill of London, Inc.

Wafer lighter, $10.00; ball lighter, $15.00
Dunhill shops, tobacco shops and department stores

Imported chromium scent bottles

Lent by Saks-Fifth Avenue
$7.50 in black leather case
Electric clock
Herman Miller Clock Co.
Gilbert Rohde, designer
$16.50. Department stores and gift shops
272

Magnetic clock
Jaeger Watch Co.
Jaeger Watch Co., designers, in collaboration with the Art and Color Section of the Fisher Body Corp. for General Motors

271

Westclox handbag watch, bakelite case
Western Clock Co.
De Vaulchier & Blow, designers
$2.95. Department stores, gift shops, drug stores
276
Tubular wall bracket
Kurt Versen
$22.00

277
Wall bracket with cylindrical bowl
Kurt Versen
$17.00
Desk lamp
Kurt Versen
Howe & Lescaze, designers
$31.00
Beta chair
The Howell Co. (Brown & Nightingale, New York distributors)
Nathan George Horwitt, designer
$30.00. Department and furniture stores
Nest tables
Thonet Bros., Inc.
$28.50

Chair
Thonet Bros., Inc.
Marcel Breuer, designer
$20.50
5. Scientific Instruments

Illustrations
Inside micrometer  
For taking internal measurements from 1 to 2 inches  
Brown & Sharpe of New York, Inc.  
$7.50. Hardware stores

Vernier depth gauge  
For measuring depth with aid of vernier scale to 1/1000 inch  
Brown & Sharpe of New York, Inc.  
$16.25. Hardware stores

Graduated rod depth gauge for measuring depth of holes  
Brown & Sharpe of New York, Inc.  
$4.50. Hardware stores

Diemakers' square  
For checking included angle of clearance in making dies  
Brown & Sharpe of New York, Inc.  
$5.50. Hardware stores

Outside firm joint caliper  
For obtaining outside measurements (used in connection with scale)  
Brown & Sharpe of New York, Inc.  
60¢. Hardware stores
313 Bevel protractor
For obtaining angle of bevel in actual material
Brown & Sharpe of New York, Inc.
$10.50. Hardware stores

292 Plain English micrometer
For measuring thickness, etc. of steel to 1/1000 inch
Brown & Sharpe of New York, Inc.
$9.50. Hardware stores

310 Vest pocket speed indicator
To indicate speed of lathes, shafts of motors, etc.
Brown & Sharpe of New York, Inc.
$1.50. Hardware stores

295 Caliper square with adjusting screw
For obtaining inside and outside measurements to 1/64 and 1/100 inch
Brown & Sharpe of New York, Inc.
$10.20. Hardware stores

311 29 degrees worm thread tool gauge
For checking angles of helical threads
Brown & Sharpe of New York, Inc.
$7.50. Hardware stores
Pocket Polarimeter
For ascertaining the concentration of sugar solutions and solutions of optically active substances
Carl Zeiss, Inc.
$83.25

Sugar and oil refractometer
For measuring the refractive index and the dispersion of liquids as well as solids
Carl Zeiss, Inc.
$211.20
Laboratory microscope ESA-105
Carl Zeiss, Inc.
$159.00
Telescope, 80 mm
Carl Zeiss, Inc.
$1,166.25
Diaphot
Exposure indicator for photographers
Carl Zeiss, Inc.
$2.20

Cube of didymium glass
For demonstrating with a spectroscope the sharp absorption bands characteristic of didymium salts
Carl Zeiss, Inc.
$5.00
Pocket sight compass
Eugene Dietzgen Co., Inc.
$8.35

Short & Mason miner’s compass
To indicate direction of ore
Taylor Instrument Companies
$40.00. Department, optical and hardware stores
Protractor
Eugene Dietzgen Co., Inc.
$10.00

Protractor
Eugene Dietzgen Co., Inc.
$41.80
352
Brass plumb bob
Eugene Dietzgen Co., Inc.
$1.90

344
345
Adjustable curve number 2160
Eugene Dietzgen Co., Inc.
$2.25
Adjustable curve number 2161 A
Eugene Dietzgen Co., Inc.
$2.65
Juerst ebulliometer
For ascertaining the alcoholic content of beverages
Eimer & Amend
$75.00

Dietometer
For obtaining the weight of food in preparing diets
Eimer & Amend
$9.00
MacMichael viscosimeter
For ascertaining the viscosity of fluids
Eimer & Amend
$210.00
Torsion prescription scale number 285
The Torsion Balance Co.
$80.00
Anemometer
For measuring air speeds
Taylor Instrument Companies
$50.00. Department, optical and hardware stores

Dental instruments
The S. S. White Dental Mfg. Co.
X-ray unit, model "B", stationary type
Ritter Dental Mfg. Co., Inc.
$820.00
6. Laboratory Glass and Porcelain

Illustrations
Boiling flasks
Corning Glass Works
57¢ to $3.30. Eimer & Amend
Stender dishes
Eimer & Amend
50¢ to $2.00

Hydrometer jars
Footed cylinders used to float hydrometer, an instrument which indicates the specific gravity of a solution
Eimer & Amend
40¢ to $2.75
377

Petri dishes
Used in growing cultures
Eimer & Amend
24¢ to 70¢

367

Crystallizing dishes
Used in obtaining crystals from saturated solutions by evaporation
Corning Glass Works
45¢ to 81.25¢ Eimer & Amend
Reagent bottles
Corning Glass Works
65¢ to $3.00. Eimer & Amend

Scorifiers
Used in assaying the metallic content of ores
Eimer & Amend
60¢
394

Retort
Used in distilling liquids
Corning Glass Works
$3.60. Eimer & Amend

375

Battery jars
Used in making storage batteries
Eimer & Amend
$4.70 to $13.25
Beakers
Used for dissolving, drying or boiling solutions
Coors Porcelain Co.
55¢ to 89.00. Eimer & Amend
Capsules
Used for drying or incinerating chemicals
Coors Porcelain Co.
15¢ to 25¢. Eimer & Amend

Dish
Coors Porcelain Co.
$1.60. Eimer & Amend
MUSEUM PUBLICATIONS

The books published by the Museum of Modern Art in connection with its numerous exhibitions form a concise library of living art, painting, sculpture, and architecture. The critical and historical notes, explanations by the artists, biographies and bibliographies contain information not readily found elsewhere. There is a wealth of illustration—over 893 plates of the work of over 300 modern painters, sculptors and architects. The Museum makes no profit on these books. It sells them considerably below the cost of production, as a part of its educational service to students and the public.

Nineteenth Century Painters and Sculptors

Cézanne, Gauguin, Seurat, van Gogh. The four great pioneers of modern painting. Critical and biographical studies by Alfred H. Barr, Jr. 152 pages; 97 plates; paper bound—$2.00

Homer, Ryder, Eakins. Essays by Bryson Burroughs, Frank Jewett Mather, and Lloyd Goodrich on these American “old masters.” 68 pages; 34 plates; paper bound—$2.00

Corot and Daumier. Two painters much admired by living artists. Introduction by Alfred H. Barr, Jr. 128 pages; 108 plates; paper bound—$2.00

Toulouse-Lautrec and Odilon Redon. Introduction by Jere Abbott. Notes on artists, actors, and singers of Lautrec’s circle by Daniel Catton Rich. 72 pages; 39 plates; paper bound—$2.00

The Bliss Collection. Memorial Exhibition. Out of print

American Folk Art. Most comprehensive survey so far published about American folk art, including sculpture. 28-page introduction by Holger Cahill. Bibliography of 86 books and periodicals. 131 pages; 80 plates; paper bound—$1.50; bound in boards—$3.50

Twentieth Century Painters and Sculptors

Painting in Paris. Foreword and critical notes by Alfred H. Barr, Jr. A succinct introduction to the work of the most influential school of living artists. 88 pages; 50 plates; paper bound—$2.00

Paintings by 19 Living Americans. This and the following catalog are anthologies of work by the best known contemporary American artists. Biographical notes by Alfred H. Barr, Jr. 88 pages; 38 plates; paper bound—$2.00

Painting and Sculpture by Living Americans. 67 pages; 34 plates; paper bound—$1.50

German Painting and Sculpture. Work of the leading German artists, with foreword and extensive notes by Alfred H. Barr, Jr. 91 pages; 49 plates; paper bound—$2.00

Lehmbruck and Maillol. Out of print

Murals by American Painters and Photographers. Essays by Lincoln Kirstein and Julien Levy. 62 pages; 61 plates; paper bound—$.50
American Painting and Sculpture, 1862-1932. A selection from American painting and sculpture, divided about equally between 19th and 20th century works. Introduction by Holger Cahill. 128 pages; 79 plates; paper bound—$1.50; bound in boards—$3.50

American Sources of Modern Art. Introduction on the art of ancient America and its relationship to the art of today by Holger Cahill. Bibliography of over 100 titles. 104 pages; 56 plates; paper bound—$1.50; bound in boards—$3.50

Painting and Sculpture from Sixteen American Cities. Contemporary work by 119 artists, with biographies. Edited by Alfred H. Barr, Jr. 61 pages; 116 illustrations; paper bound—$1.00; bound in boards—$2.50

Monographs on Individual Artists

Henri-Matisse. "Notes of a Painter" by Henri-Matisse; the only publication in English of these important observations. Critical essay by Alfred H. Barr, Jr. 128 pages; 82 plates; paper bound—$2.00; bound in boards—$3.00

Charles Burchfield, Early Watercolors. Foreword by Alfred H. Barr, Jr. and notes by the artist. 24 pages; 10 plates; paper bound—$1.00

Paul Klee. Out of print

Diego Rivera. Out of print

Max Weber, Retrospective Exhibition. Work by one of the most important American modernists. Foreword by Alfred H. Barr, Jr., and notes by the artist. 40 pages; 16 plates; paper bound—$1.00

Maurice Sterne. Introduction by Horace Kallen and notes by the artist. Biography by Holger Cahill. 52 pages; 23 plates; bound in boards—$2.50

Edward Hopper. "Notes on Painting" by Edward Hopper. Essays by Charles Burchfield and Alfred H. Barr, Jr. 81 pages; 48 plates; paper bound, $1.00; bound in boards, $2.50

Architecture


Theatre

Theatre Art. Four centuries of Theatre Art. Edited and with introduction by Lee Simonson. Contributions by John Anderson, Paul Alfred Merbach, Oliver M. Sayler, John Mason Brown. 146 pages; 76 plates—$1.50; cloth bound—$2.00

Rivera Portfolio

Diego Rivera—A Portfolio of Color Reproductions of Mexican Frescoes. Notes by Jere Abbott. These are the first color reproductions published of the famous frescoes in Chapingo, Cuernavaca and Mexico City. Contains 19 full-color plates and 15 monotones—$25.00
Twenty-five hundred copies of this catalog were printed for the trustees of the Museum of Modern Art, New York, by the Blanchard Press, Inc., New York, March, Nineteen Thirty-four.