



# THE SCOVILL STANDARD

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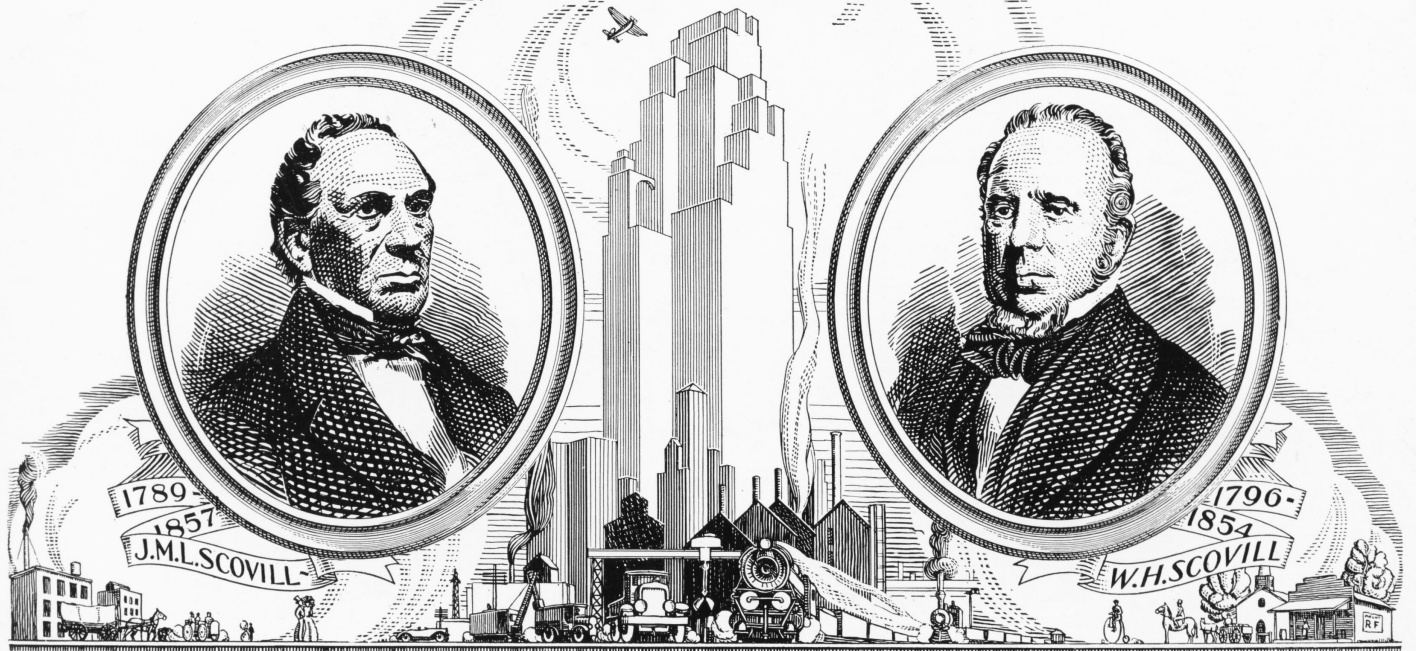


SCOVILL

WHAT IS MORE ENDURING THAN BRASS



# Editorial:



## The Morals of Trade

THERE is an old tale which runs: "For want of a nail a shoe was lost; for want of a shoe a horse was lost; for want of a horse a rider was lost;" and so on until, the story informs us, a kingdom was lost. A small thing in itself, a nail, yet upon its holding hung the fate of a kingdom.

The little things *do* count. One defective unit, no matter how tiny, may destroy the efficiency of the strongest mechanism.

Writing in the *Westminster Review* in 1859, Herbert Spencer, English Essayist, spoke of the malpractices of industry. Comparatively few merchants or manufacturers, Spencer thought, were actually guilty of substituting sand for sugar, deliberately dispensing short weights, or inferior materials. He cried out, however, against the almost universal policy of "laissez faire."

Individual businesses, said Spencer, were neither better nor worse than the average. Although they were not actually dishonest, few business men made any effort to raise the standards of business in general. It was truly a period of "let well enough alone," and if every once in a while a bit of merchandise was sold that was not up to standard—well, accidents will happen!

Fortunately, modern industry has been founded upon the theory that success depends upon strict integrity. And strict integrity means more than honest weight, more than full measure. Strict integrity carries with it a moral responsibility that calls for the best in effect as well as in materials. Operating on this basis, modern industry has furnished billions of products, large and small, each of them scientifically, accurately manufactured. Modern industry turns out merchandise that has been manufactured to the highest standards of accuracy and dependability that are possible.

Scovill Manufacturing Company, a pioneer in industrial progress has also pioneered in standards. From a tiny pin to intricate mechanical assemblies, the products of this company receive careful supervision and inspection. Made of the finest quality raw materials, by up-to-date methods on modern machinery, Scovill-made products receive rigid tests and inspections. They are reliable.

Scovill's trade morals require that customers receive reliable products, reliable service. With this organization the little things count as much as the big ones.



WHAT IS MORE ENDURING THAN BRASS



# THE SCOVILL STANDARD

A Monthly Magazine Exemplifying 128 Years of New England Manufacturing Ideals

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## Walking On The Air

THE forest of skyscrapers growing daily, in the larger cities of the United States, harbor thousands of workers which the average man knows nothing about. The combined work of many sturdy muscles night and day go to make up the monumental progress of cities.

A puny thing is the building construction worker after the whistle sounds and he matches his proportions with the facade of the building he is erecting. When he is at his task his is a heroic figure, for there is about his sure footedness and his clear headedness and his nonchalance to danger, something almost of a god.

One sees him at dizzy heights, walking a girder with a surer foot than the clerk on the sidewalk hundreds of feet below. He seems to have a contempt for danger, as he fastens huge girders into place at heights that once knew only the birds of the air.

After the steel workers come the "goolashers", the cement workers who fill the

wooden forms around the girders, construction and steel mesh to reinforce the floor. Theirs is perilous work, too, for they are continually chasing the iron workers, putting in concrete flooring as quickly as the hot rivets are in place. They are underneath hot blow torches and sizzling bolts and nuts all the time, constantly in danger of being whacked by a red-hot piece of iron.

Other workers hazard their lives also. There are always things to be dropped or accidentally knocked off, to come thundering down upon the heads of those below; and every now and then some major accident, such as the breaking of a cable or crane, or the dropping of a girder, will take its toll of the gallant builders of America's skyline.

But the work must go on. In relation to infinite Time, hardly is one building finished than it is snatched down by the eager fingers of the demolishing crew only to be flung up again, higher and more beautiful than ever, by the army



Photo Galloway

*A striking snapshot of a riveter high above the normal skyline of the Golden Gate—one of the great army of walkers on the air.*

of workers under the direction of General Industrial Age to the exacting demands of blue-prints and specifications.

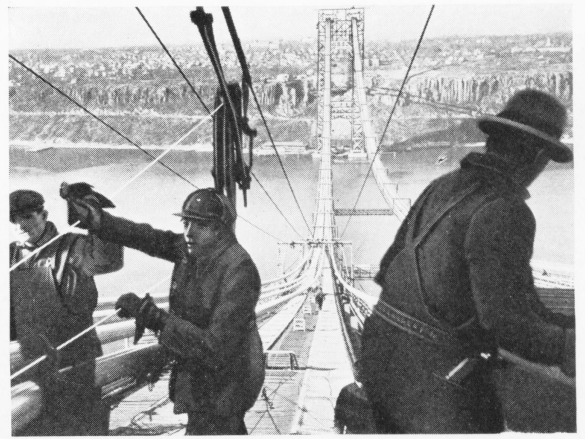
To any one not used to the great system of skyscraper building, the confusion of bells and whistles that accompany the erection of a structure is very strange. But every bell means something. Every whistle is a signal.

Sometimes, in the very noisy places, colored electric lamps are used, but generally bell signals are the best. The signal of the hoist engineer is the same the whole country over—usually, two strokes of the bell to hoist, three strokes to lower away, and one to stop. The signal cord is sacred, and woe to him who tampers with it!

### A Romantic Tussle

Perhaps bridge building is the most romantic tussle with the elements that man can wish for. He works not only in crowded cities, but also on the outer rims of the earth, and he knows the emptiness of space as well as the rugged feel of the earth.

Whether he is working on a bridge or a building, below ground or high in air, the building construction worker is possessed of the same pioneering qualities that led men, in the early days of America, westward, into the land of adventure. In some respects, he is even more of a hero. Whereas the early blazers of civilization's trail surely faced death at the hands of hostile Indians or unkind elements if he failed, success often brought him comparative wealth in the form of gold, rich hunting grounds or fine home-



*Photo Galloway*  
Wire workers busily engaged in erecting the new Hudson River Bridge. Here they are placing the cable wire on the reel as it passes. The Palisades of the Jersey shore are visible opposite.

steads. The building worker takes his life in his hand every time he mounts to the airy top of a skeleton structure; and if he is successful, he lives! His reward comes only in the form of the thrill of accomplishment.

Since buildings are paid for not only in dollars and cents, but also in the sweat and blood of the workers and the combined woes of women and children, it seems obvious that only the best of materials should go into them. Such has not always been the case.

In previous years many buildings have been constructed into which went the best that could be obtained in steel and concrete and wood, but which were not always the efficient, modern structures that they might have been. In some of them corrodible piping was used; in others corrodible materials were used for leaders, down-spouts, flashings, and shingles. What a shame that great buildings erected at such cost and with such excellent exteriors should contain cankerous cores!

### Value of Copper Recognized

Leading architects the world over, however, have lately come to recognize the intrinsic value of copper and its alloys in building construction work. They now specify plumbing and plumbing fixtures of enduring rust-proof brass and bronze. Copper is used for roofing and for various leaders and down-spouts. Many new buildings are fitted with elaborate and indestructible brass facades, things of beauty designed to live for ages.

There are other uses for the alloys of copper in the modern building. Lighting fixture parts

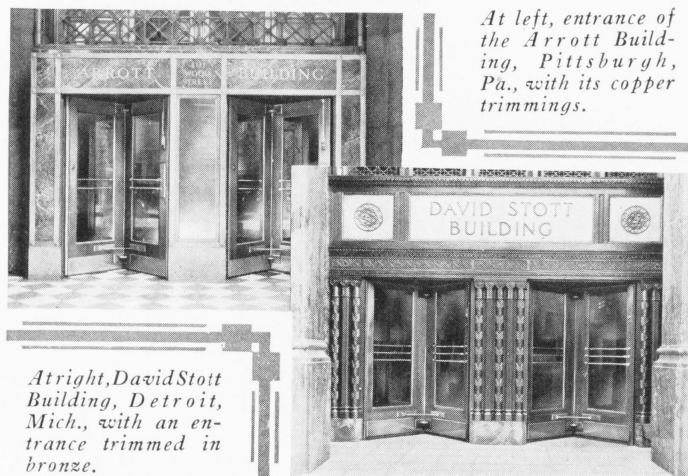


*Photo Galloway*  
Walkers on the air in New York City's Madison Square Section. In the background one sees the spire of the new New York Life Insurance Company building on the site of the old Madison Square Garden.

and hardware specialties, heating specialties, decorative trimmings, handles, doorknobs — the list of products of non-corrodible brass and bronze is infinite.

As Fiske Kimball romanticizes in "American Architecture:" "Among a people with the vast material task of conquering the wilderness of a continent, mastering the riches of its soil, its forests, its waters and mountains, artistic expression takes chiefly the form of building, or archi-

*Entrances to two modern structures.*



*At left, entrance of the Arrott Building, Pittsburgh, Pa., with its copper trimmings.*

*At right, David Stott Building, Detroit, Mich., with an entrance trimmed in bronze.*

tecture. It is in architecture, of all the arts, that America has said best what it has had to say. . . . Only with the founding of the Republic does a creative spirit appear, a new sense of form. Then, as a new civilization takes shape, amid the hum of harvester and factory, a new material, steel, leaps from the earth. Its towers, rising in sunshine and storm, glowing in the night, embody the aspiration of a new world."

Air-walkers we salute you!

## Courtesy, A Business Asset

*An Interview With*

STEPHEN COLWELL

COURTESY has been defined as "genuine and habitual politeness." It is all of that and more. It is a definite business asset. It is a valuable working force in business that never becomes obsolete with age.

In Detroit, Michigan, there is a man who can tell, perhaps as well as any other man in the business world, just exactly the value of courtesy. That man is Stephen Colwell, Information Manager for the Hupp Motor Car Corporation.

During his 82 years of life Mr. Colwell has had a varied business experience. He has had a chance to study business diplomacy from both sides—that of the salesman soliciting business and the buyer giving business. At about the time of the Civil War Mr. Colwell bought material from the Scovill Manufacturing Company. About forty years ago he was selling photographers' materials. And for the last fifteen years he has been with the Hupp Company.

As Information Manager, Mr. Colwell receives approximately 25,000 to 50,000 people annually. It is his duty, and it might be added pleasure, to give information to

these persons, to direct them to other individuals with whom they have appointments, to arrange trips of inspection for them over the vast Hupp plants—to handle all of the thousand and one problems that naturally arise in the course of the day's work. Many of these problems require tact and diplomacy; all of them require courtesy.

For convenience's sake business courtesy may be generalized as representing contact with all outside business houses. Mr. Colwell's position makes him virtually "contact man", on the premises, for the Hupp Corporation.

Mr. Colwell, however, in his years of varied experience, has learned to reduce business to its living factor. He knows that the greatest business in the world, when stripped of its factories, its sales offices, its machinery, its patents, its trademarks, its good-will, consists of a group of living human beings. He knows that these human beings are of varied personalities, but that all of them respond to the kindly word, the tactful letter, to precise and truthful statements, to the "voice—with—the—smile."

Mr. Colwell has solved the prob-



STEPHEN COLWELL

lem of business courtesy and to quote Mr. Colwell, "A big business cannot afford to be other than courteous.

"For", Mr. Colwell continued, "the greatest advertising appropriation in the world, the best product in its line, cannot build goodwill if the human element is lacking. You can bet that the man who builds the best mouse-trap, the man to whose doorway the world makes a beaten path, will either greet his callers with courtesy and a smile or the path will continue right on past his house and his mouse-traps will remain on the shelves, excellent products, perhaps, but unsold nevertheless."

### Not a New Philosophy

Many years ago, before the present era of mass-production, before, indeed, the automobile industry in this country was born, Mr. Colwell learned that the man who is asking something today may tomorrow be in a position to give something. It is simple logic, therefore, that the only workable proposition is to extend to all persons alike genuine courtesy.

This, of course, is no new philosophy. Long ago the golden rule taught all men to "do unto others as ye would they should do unto you."

In 82 years of life Mr. Colwell has learned many secrets of business. None of them, he feels, is more important than the fact that courtesy is a business asset. For 44 years Mr. Colwell was a salesman of photographic materials, during which time he bought materials from the old Adams and Scovill Company and later from the Anthony and Scovill Company, which became the Ansco Company, so well known today.

In this time Mr. Colwell had ample opportunity to learn the fine points of both sides of business courtesy, which he classifies as dealing with persons soliciting business and persons giving business. Courtesy, he has found, is essential to success in either capacity. And for the past fifteen years he has demonstrated the soundness of his policy by becoming one of the best known and well liked men in the automobile industry while acting as Information Manager for the Hupp Motor Car Corporation.

The only trouble with this rule is that many people fail to realize the benefits of unselfishness.

Mr. Colwell is as fine an example of the rewards reaped by the exponents of that rule as can be found anywhere. On April 2nd, 1928, when he reached his 80th birthday, the Hupp Corporation gave him a quiet little birthday party. On the year before that, and even the year previous to that, similar accordances of affection and regard

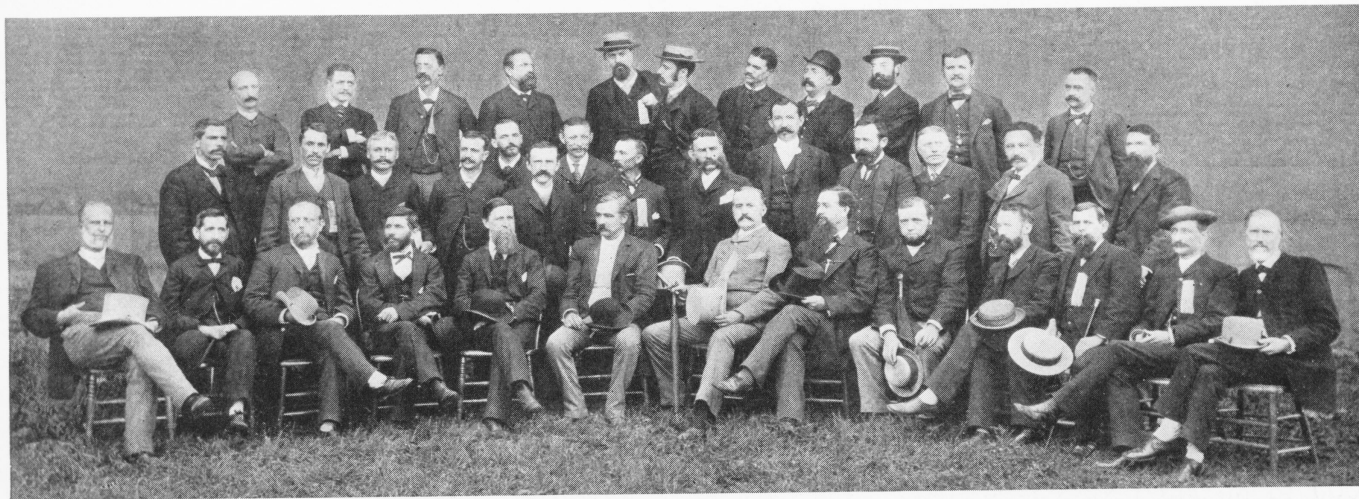
were paid him. In his fifteen years with the organization he has become known and liked by all of the Hupp Company employees and officers, for his policy of courtesy has extended to all with whom he has come in contact.

Do not get the impression that Mr. Colwell's fine smile and quiet courtesy is "stock in trade." It is not an outgrowth of his position. Rather is his position a resultant of his courtesy and his ability to greet all persons with equal cordiality.

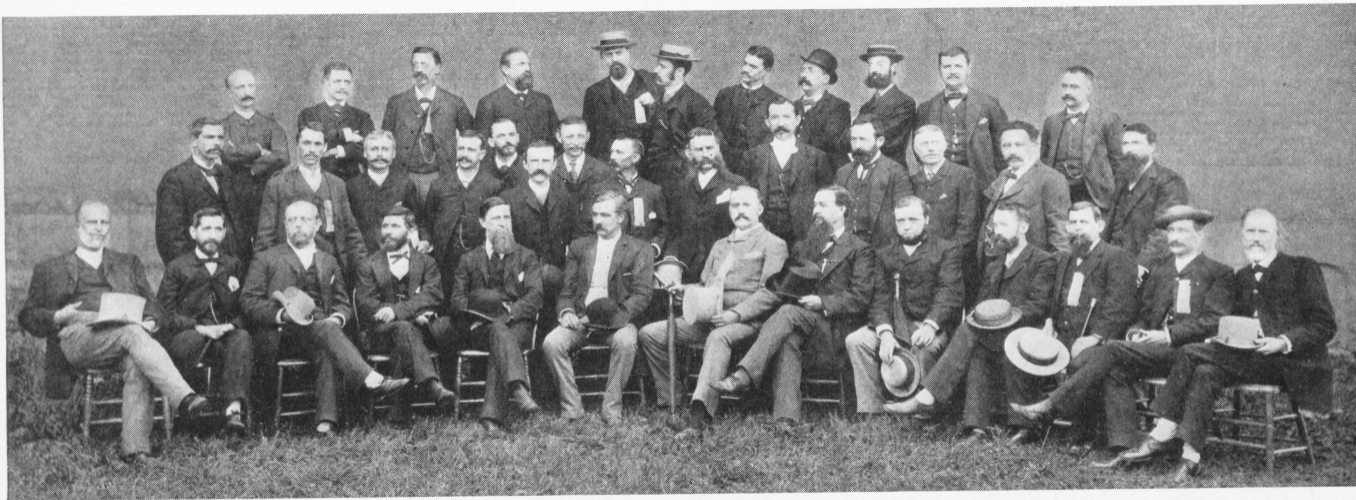
### Transformed Cold Cash Basis

To transform Mr. Colwell's experiences to a cold-cash, business basis consider these pertinent paragraphs:

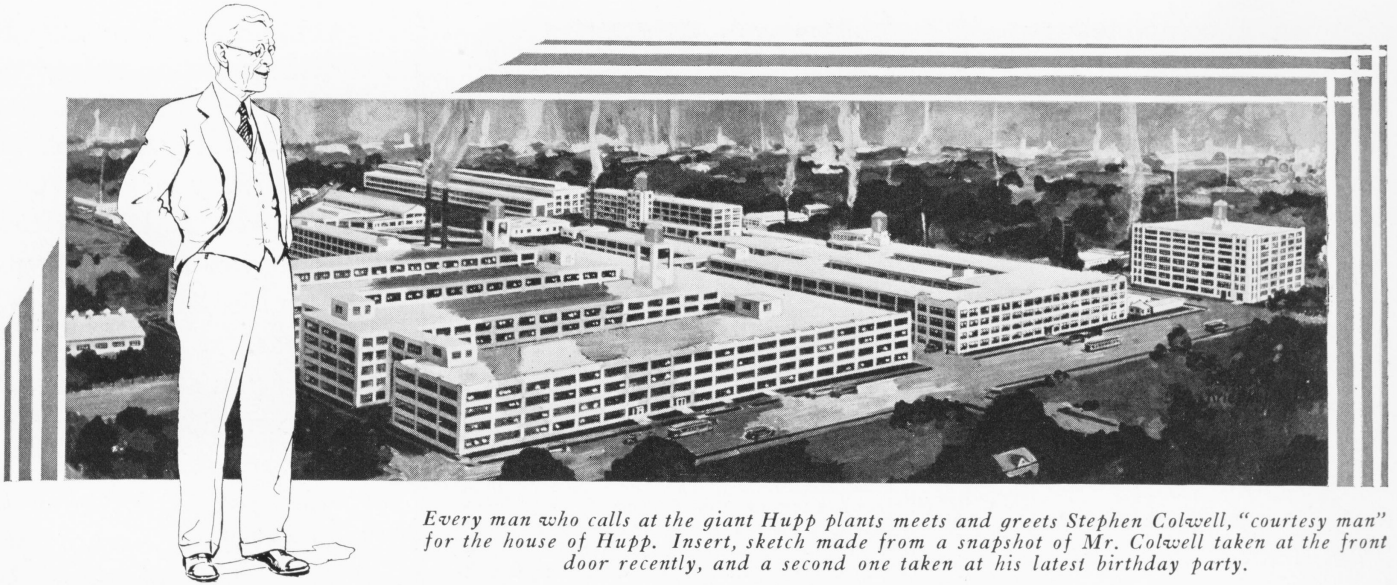
"Courtesy and service interspersed with grey matter keep the customer sold on the house and



*A photographer's convention some forty years ago at which was present Mr. Colwell—second from the left standing in the rear. Mr. Irving Adams of the old Adams & Scovill Mfg. Co., is the gentleman seated in the center with the light suit and the "Show Boat" style hat.*



*A photographer's convention some forty years ago at which was present Mr. Colwell—second from the left standing in the rear. Mr. Irving Adams of the old Adams & Scovill Mfg. Co., is the gentleman seated in the center with the light suit and the "Show Boat" style hat.*



*Every man who calls at the giant Hupp plants meets and greets Stephen Colwell, "courtesy man" for the house of Hupp. Insert, sketch made from a snapshot of Mr. Colwell taken at the front door recently, and a second one taken at his latest birthday party.*

pay rich dividends in the annual gross volume of business and the profits shown at the end of the year."

### The Unduplicable

"In this day of keen competition in goods and prices, there is little left unduplicable except business courtesy and reliable service."

"Due appreciation of the client's wants often result in a life-long connection."

"Even the short-tempered testy man may become the most generous and loyal customer when handled with tact and diplomacy."

"Courtesy in business is a distinct asset."



# Cost Accountants, Sales Managers and Selling Prices

By J. V. MONTAGUE

*Assistant Comptroller, Scovill Manufacturing Company*

ACCOUNTANCY as a profession recognizes and appreciates the value of a Sales Department. Upon its proper functioning depends the accountant's job and to its success he contributes no little effort. I sometimes wonder if there is reciprocal recognition and appreciation among salesmen for accountancy. There is interdependence between these two necessary parts of business although it seems that full acknowledgment of this intimate and mutually sustaining relationship has been confined principally to the accountants.

The reason is clear. The accountant's oppor-

tunities for measuring sales policies and salesmen's abilities are as great as the opportunities presented to any other individual in business. In fact he assembles the information and compiles the figures on which management evaluates the results of salesmen's efforts. Everything a salesman does, his movements, his travels, his expenditures; the contacts he makes, the interviews he obtains, the orders he receives and the profits he brings in or the losses he causes his company to take, are all vividly and incontestably portrayed for management's eyes.

That record sometimes fails to present to the



salesman a complete or true picture of what he has done. As he stands or falls on the record, despite its frequent deficiencies, very naturally he often views the accountant's work with suspicion. He cannot retaliate on the accountant. He writes no history of the accountant's work. Thus it is only human that the salesman sometimes manifests a little feeling of resentment and pretends a skepticism regarding the value of the accountant's work.

Now suppose this salesman advances to the position of sales manager. His skepticism may advance with him. It is liable to crop out when he is furnished with the cost of the products he has to sell and for which he must establish profitable selling prices. He is face to face with a deadline. He cannot cross over that deadline and fulfill his obligations to return profits to his company.

### Sales Managers Human Beings

Since this sales manager is a human being and subject to all the frailties of human nature, this restriction is apt to add fuel to the fire of his resentment. He may condemn those costs as being untrue and valueless in price setting. Certainly, if he is inexperienced in the use of costs, he is reluctant to accept what he considers a theoretical barrier to the extension of business and he often denounces cost systems as unreliable records for the establishment of selling prices.

Quite naturally his condemnation extends to the men engaged in cost work. And usually, if he believes that the results of their work are obstructions to his activities and are retarding influences in the expansion of the distribution of his company's products, he has little or no esteem for cost accountants.

Some of you may be cost conscious. You may be depending on costs to establish selling prices. If so, you are advancing the interests of your

Mr. Montague, who has been with the Scovill Manufacturing Company for the past 11 years as auditor and assistant controller, is already well-known to readers of the "Scovill Standard" through his article on Costs, published last fall.

It may be said of Mr. Montague that he is an exponent of modern business methods. He is particularly interested in clearing up the old myths and hazy traditions that have grown up about accountancy and cost figures. Many of his speeches on various phases of accountancy have been widely read and discussed.

His present article, "Cost Accountants, Sales Managers and Selling Prices," goes with characteristic directness to the heart of the misunderstanding that often exists between the cost accounting department and the sales department. The article was condensed from a talk which Mr. Montague gave before an association of sales managers, and which caused widespread comment.



J. V. MONTAGUE

companies. You may be selling goods below the cost of producing those goods but you are doing so with your eyes open and with full knowledge that you are depriving stockholders of dividends.

If you are without cost information, if you guess at your selling prices, if you are a follower of competitors, who perhaps, have no more information regarding costs than you have, or if your selling prices flip-

pantly disregard costs and are based on an unwarranted assumption that Providence has endowed you with powers of cost divination, it is easy to understand why 40% of 104 Connecticut companies lost money in the year 1928, a year of unusual business activity and prosperity. Production inadequately rewarded for a time will perhaps force producers to reduce costs by an improvement in methods of production. Quality may even be raised under that pressure but results such as these, obtained through the specious stimulus of a bad practice and an economic wrong, cannot long continue under such false and unjust burdens. Soon quality disappears and service becomes a memory.

### Continual Losses Unnecessary

I cannot accept the everyday argument that the keenness of competition compels a continual acceptance of business at a loss. That is to me unsound argument, predicated on an unsound condition and germinating the seeds of business disaster. Neither can I believe that selling price has no relation to cost and I refuse to admit as a sound business principle that other favorite argument of salesmen, that selling price is fixed by competitors often below costs in order to obtain business so that factories may operate at full capacity.

In periods of great depression such as followed the great war that might be true. Even in

such times, it is upsetting and dangerous to industry. Business is conducted for no other reason than to make profits. It cannot sell goods at a loss and make profits. It has not money enough to pursue such a senseless and fantastic policy for many days.

### Accountants' Limitations

Accountants, unlike salesmen, bring no revenue into treasuries. They are profitable in another way. America abounds in wealth such as the world has never before seen. The accumulation of that wealth by vast hordes of people and its wide distribution to still more people in myriads of ways, particularly through individual investment in shares of stock companies, necessitating strict accountability which definitely places responsibility and emphatically demands

the proper execution of trusts, have gradually created and permanently established in the commercial and financial world, the importance of the accountant's work. He is not a simple compiler of figures or a routine recorder of past transactions. He is a constructive and vital force in business and in administration.

Furnishing the sales department with costs is only a small part of his work, although it is the part I have emphasized in this article. An association of salesmen or of a group of men who manage salesmen is that part of business which provides the revenue. We accountants are that part which tells salesmen at what cost they have obtained this revenue, sometimes disturbing their equanimity in the telling. We also tell them whether they have met the expectations of

*(Continued on page 11)*

## Bronze Columbus Bell Still Tolls

**I**N the tower of old St. Michael's Church, in Luneburg, Germany, there still tolls a bronze bell cast in 1492. This bell shows the picture of King Ferdinand of Spain, commemorating his sending out the fleet of Columbus, whose voyage ended, of course, in the discovery of the western continent.

In the tower of this old church, besides the "discovery bell", are others which carry back to the days of the Roman conquerors of Germany, when Julius Caesar, according to historical hypothesis, erected one of his *castella* on the lonely hill which rises abruptly out of an otherwise plain country near the tower of St. Michael's. This marked the point farthest north reached by the Romans, who stopped a few stadia from the marshy

ground of the River Elbe.

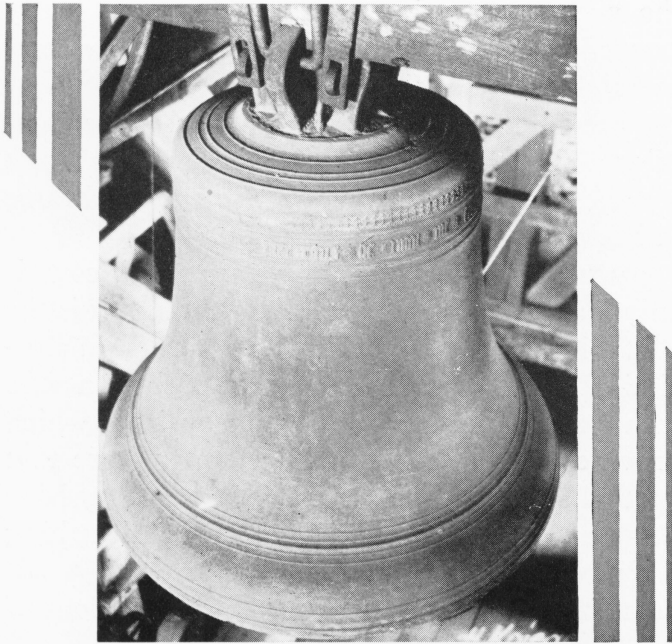
St. Michael's faces a hill upon which stood an ancient castle, once well fortified. For a thousand years this castle was a friendly refuge for those who settled at its foot when the Huns swept the country or hostile robber barons threatened the little town that nestled at the foot of the hill. Things went from bad to worse,

until on February 1, 1371, the citizenry took the law into its own hands and stormed the castle, destroying it.

The only remains of the old castle are the foundations of one of its towers and bells from the old castle chapel which have survived the French Revolution and the World War. It is interesting that, besides the oldest bells, dating from about 1200, the



*St. Michael's Church, Luneburg, Germany, in which there still tolls a bronze bell made the same year Columbus sailed for America—1492.*



*This venerable bronze bell shows the picture of King Ferdinand of Spain, and was cast in the year 1492. It hangs in the St. Michael's Church, Luneburg, Germany.*

Columbus bell of 1492 and a larger one cast by the same founder in the same year are still existent.

Their survival is hardly believable, for in the year 1791, during the French Revolution, the then administrator of the old convent threw out the bones of all the princes buried in the church and destroyed the wonderful bell cast in 1492 which had given the dominating or key tone, and others of 1325 and 1427. One of the bells which now survive had been cast before 1200, and another in 1230. Both had belonged to the chime in the old castle chapel.

### Before Columbus Set Sail

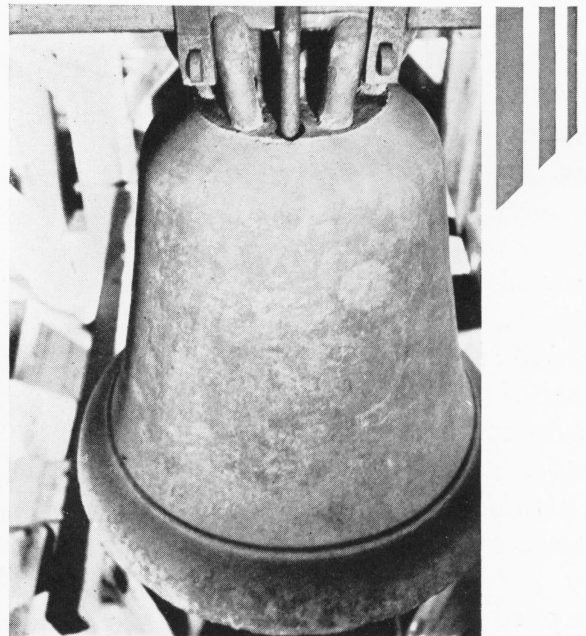
It was in the year 1491 that the Abbot of St. Michael's, Werner von Dagevoerde, was apprised that the most celebrated bell founder of those days, Gerhard von Wou, would pass through the town on his way to a neighboring place. The Abbot induced the master to stay with him for the purpose of creating a new full carillon. So Von Wou cast a new primary tone bell, which was the largest of them, and in 1492, three more. Only two of them now survive and, luckily, the Columbus bell is one of them. The larger bell, a quart, is now the key tune of the chimes, while the America, or Columbus, bell serves as *terz*. The relation of the sound waves

of these two bells to each other is mathematically correct, a fact which indicates that Von Wou was aware of the law of sound waves, whose discovery has been credited to a later period.

### During the World War

It is remarkable that not one of these old bells, some of them in use for 700 years, shows any signs of serious deterioration, and none of them has ever cracked. The handling of these bells during the world war deserves special notice. There were in the same town of Luneburg, the chimes of St. John in a 365 foot tower. They were new, cast in 1912, but lovely. Being replaceable, however, and without historical significance, they fell victims to the necessities of war. Half the bells of St. Michael's, it is true, were sacrificed, but the more important ones were saved.

Lately two of the destroyed bells of St. Michael's have been replaced by new and worthy specimens, and there is a collection going on for the last two which are needed for the completion of the chime. Natives of the town are quite poor and unable to give much money at a time, but it is felt that before long the chime will be completed and new bells will take their places to toll with the old ones. None, however, will ring out with more sweetness and mellowness than the bronze Columbus bell, which daily tolls in honor of the discoverer of America.



*The old Castle bell, cast about the year 1200.*

# Old Friends and New Inventions, Factors In Success

By E. M. BEROLZHEIMER

*President, Eagle Pencil Company*

IN a Christmas greeting which our company once sent to the stationery jobbers and retailers of this country, we said: "Whatever else we balance off upon the ledgers of time and change, old friends are carried forward."

We count as friends not only our customers but our suppliers, and among the very oldest of these is the Scovill Manufacturing Company. We have carried them forward, year after year, in the closest cooperation and with mutual benefit and esteem, for as long as anyone now associated with our company can remember—certainly for over 50 years, very likely for many years longer.

Old friends and new inventions have been the prime factors in our success. Scovill Manufacturing Company is one old friend who has also played an important part in new inventions. For many of the new inventions applicable to our business involved the use of brass in new ways, ways which the advice of Scovill experts helped to solve.

## Pencils of the Ancients

History tells us that the first pencils—those used by the artists of old—consisted simply of lumps of colored earth or chalk cut into a form convenient for holding in the hand. With such pencils were executed the line drawings of Aridices the Corinthian, and Telephanes the Sicyonian, and also the early one-color pictures, or monochromata, of the Greeks and Egyptians.

What a contrast between these crude instruments of writing and the pencils of today!

The Eagle Pencil Company was first established in the United States by Daniel Berolzheimer in 1856.

In 1877, due to increasing business, a building was purchased in East 14th Street, New York

E. M. Berolzheimer, president of the Eagle Pencil Company, is the son of Emil Berolzheimer, whom he succeeded, and a great grandson of Daniel B. Berolzheimer, the founder of the company. Mr. Berolzheimer has had passed down to him by his forebears, principles of business integrity which are as essential to successful manufacturing today as they were in the early days of the company's life. To this heritage he has added the spirit of modern progress and has carried on the business so well that today Eagle Pencils are sold throughout the world.



E. M. BEROLZHEIMER

City, and from that nucleus has evolved the present plant which now covers the entire area between 13th and 14th Streets and Avenue C and D. Approximately 1500 persons are employed here. In addition, a large manufacturing plant is located in London, England.

We make many things in which we use brass purchased from Scovill Manufacturing Company. Our largest requirement is for brass which we make into pencil tips—the little metal ends that hold the erasers.

Practically all pencils with erasers that sell for more than a penny have the erasers inserted in metal tips. Simple as these tips appear, they must be made of just the right alloy and with unvarying uniformity of size and physical qualities so as to be perfectly adaptable both to service requirements and to the methods by which they are finished and applied to the pencils. The least variation in size or quality of the tips slows up pencil production, and may seriously affect the usefulness of the product. Consequently, it is most important that we have a dependable source of supply for the raw brass which goes into these tips—a source of supply such as Scovill has proved.

Best known among the Eagle pencils with brass tips is the famous "Mikado". This is the





*A bird's-eye view of the present Eagle Pencil Company. Mr. Berolzheimer in the accompanying article outlines the cooperation which has continued over the decades between Eagle and Scovill.*

yellow pencil with the red band, which has been the favorite writing tool of millions of people for over a generation. "Mikado" is the world's largest selling five cent pencil, and the tip which bears the distinguishing red band is made from Scovill brass.

There are many other brands of Eagle pencils, all bearing tips made of Scovill brass which are well known in the commercial and educational fields. But the Eagle Pencil Company makes more than lead pencils. It makes a great variety of articles among which are many made in part from brass which we purchase from Scovill in the form of sheets, wire, and so forth.

### Use Large Quantities Brass

For instance, we buy large quantities annually of special alloy brass which we draw into barrels for mechanical pencils. Way back in 1879 our company invented the original mechanical pencil and was granted basic patents on it. From this time to date there has been an endless succession of improved Eagle mechanical pencils and Scovill has supplied the brass for all of them. Made by the millions, and usually made almost entirely of brass, this business has been very important and is still large, in spite of the fact that we manufacture many with barrels of other materials, in which, however, brass is used for parts of the trimming and the movements.

In the development of the fountain pen as well

as the development of the mechanical pencil, the Eagle Company led the way and Scovill played its part from the very beginning as supplier of the raw material for brass barrels, clips, levers and so forth.

The development of the modern fountain pen goes back to 1877. In that year we brought out a penholder having a stick of the new ink lead so attached that when dipped into water a little of the ink stick dissolved and fed the pen with liquid ink. This was a useful invention that was widely used and was not much improved upon until 1890, when our company brought out a fountain pen consisting of a nickel plated brass chamber, drawn from Scovill brass, in which was placed a glass vial of ink.

To use this, it was necessary to remove the rubber stopper from the vial and connect it to a rubber tube which fed the pen. This new article sold at a moderate price and really took the writing public by storm. Needless to say, the reliable uniformity of Scovill brass played an important part in its successful manufacture.

### Self-Filling Fountain Pen Arrives

In 1903 came the original Eagle "self-filling" fountain pen which put all glass vial fountain pens out of the running forever. Although our company now makes many fountain pens of pyralin, others have barrels and caps of brass, which we draw from Scovill brass and finish in our plating and enameling departments.

Through the medium of Eagle students' compasses, Scovill products have found their way into the hands of school children the world over during the past forty years. The entire development of moderate priced compasses and dividers suitable for school work has resulted from Eagle inventions. Our most popular compass was patented in 1894 and, with various improvements, has remained the outstanding article of its type. At the present time we make eleven styles of student's compasses and they are made almost completely from brass furnished by Scovill, but formed and finished in our plant.

Our invention in 1893 of the first successful pencil sharpener further broadened our requirements of Scovill brass products.

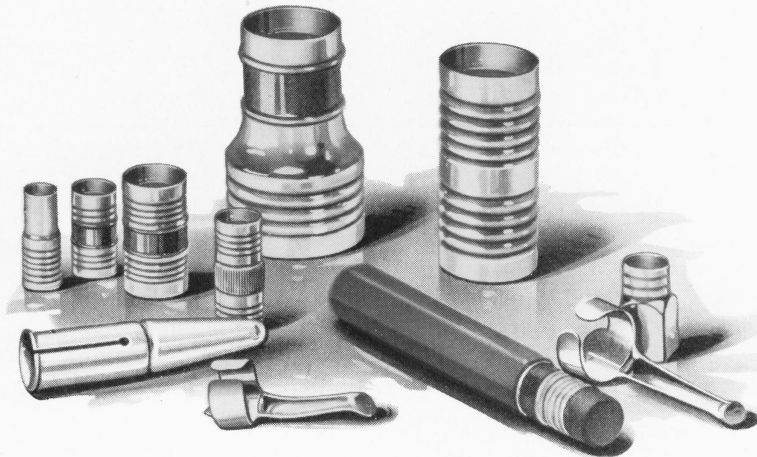
The Eagle Company has always been a large producer of metal specialties and novelties which are largely made of brass—Scovill brass, of course. Our drop knife, in which a round or hexagonal brass tube makes a handle for the blade and into which the blade drops out of sight when a little spring catch is released, is a well known example. Generations of boys have kept alive a steady demand for this practical pocket knife. Another good example is the bullet pencil, made by us in great quantity over a period of years. This is a perfect reproduction of a military cartridge

with steel jacketed bullet, which, when the bullet is pulled out, becomes a short pencil. In the course of years an immense amount of Scovill brass has been drawn into these bullet pencils.

Most of our pencil point protectors and pencil clips are made from Scovill brass, and we are now packaging most of our thin leads for refilling mechanical pencils in brass instead of wooden tubes. We draw the tubes for "Mikado" thin leads in hexagonal form, enameled yellow, striped with a red band, so that it looks exactly like the tip end of the pencil by the same name.

Among the special alloys which Scovill Manufacturing Company makes for us is a special bronze which we turn into pen points for commercial and school use. Scovill also furnishes us with pattern brass, wire and material for practically everything we make that is manufactured of brass or bronze.

Thus in a world of business where the pencil has always been the foremost instrument of writing—as well as in the field of art, literature, science and education—brass has played an important part. Our long years of association with Scovill Manufacturing Company have placed that organization high in our list of friends; and, as stated earlier in this article, old friends plus new inventions are essential factors to success.



*A small group of the widely diversified Eagle products which are in part of Scovill brass and alloys.*

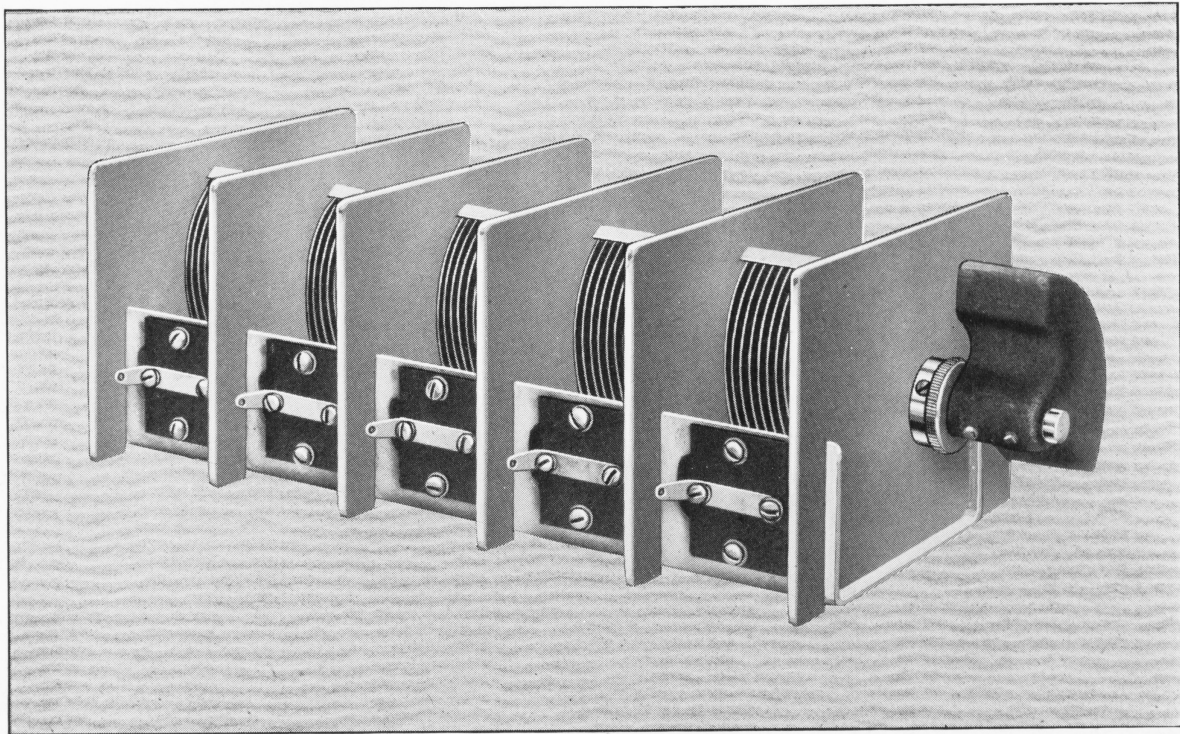
#### COST ACCOUNTANTS AND SALES MANAGERS

*(Continued from page 7)*

their employers. That disturbs them some more. Therein may be the reason for the dislike which some of them bear us. A few more years and they will all be our friends as all of us are their friends today. That change in feeling is inevitable. It is sure to come.

All men endeavor to cultivate friendships with the men who wield power over pay checks. There is a growing tendency to place that power

with the accountant. More and more are his measurements of values being applied to efforts of all kinds. The workman at a machine, the clerk in the office, the salesman on the road and the salesmanager at his executive desk are being brought within the dictates and limitations of the stop watch. The watch is now thought to tick best in the hands of the accountant, so for that reason if no other it behooves the salesmanager to cooperate with the cost accountant.



Scovill Radio Condensers are manufactured by the hundreds of thousands each year. These Condensers are made to meet the individual requirements of each set manufacturer, for Scovill is not limited to any particular style of Condenser but can produce any special condenser that may be required.

Perhaps the chief reason for the widespread and growing popularity of Scovill-made Radio Condensers is the constant scientific development work which keeps them always slightly ahead of the market trend. Scovill Electrical Engineers are in very close touch with the Radio Industry and this close contact enables them to have new Condensers ready at the time the industry is ready for them. All development work, the making of the samples and the actual production of the Condensers is at all times under the direct supervision of the Electrical Laboratory.

Scovill development work, and the company's capacity for large quantity production, make this oldest brass fabricating plant in the United States the logical manufacturer for quality Radio Condensers.



# The Evolution of the Automobile

By PAUL G. HOFFMAN

*Vice President, The Studebaker Corporation of America*

PAUL G. HOFFMAN  
*Vice President, The Studebaker Corporation of America.*

Founded in 1852, between the years 1900 and 1909 Studebaker sales totaled \$56,611,-576.70. Between 1910 and 1919 they reached \$445,587,-429.66 and the decade from 1920 to 1929 saw the sales total mount to \$1,336,681,-227.30. Mr. Hoffman is in charge of sales.



ASK any school boy who invented the automobile and you will probably get an accurate account of Elwood Haynes' arrest for disturbing the peace with his horseless carriage in 1898. Popular opinion seems to have given America full credit for the invention of the motor car.

Back in the days when Americans were concerned principally with keeping their scalps intact under their Puritan hats, European scientists were experimenting with self-propelled vehicles. Probably the first active development was that brought out by Sir Isaac Newton in 1680 but there is apparently no official record that the "car" had ever advanced beyond the "working model" stage.

## France Claims First Honors

France claims the honor of fostering the "first steam car to run under its own power upon common roads," and, apparently, the English are entirely content to let them have it. Incidentally, the French might claim the honor of developing the first front-wheel-drive car, too, for the creation brought out by Nicholas Joseph Cugnot in 1770 was of such a type.

Cugnot, a French artillery engineer, was greatly interested in some means of moving cannon other than by horsepower. So he evolved his steam wagon or tractor. The vehicle was a three-wheel affair with a steam kettle mounted ahead of the front wheels and power was fur-

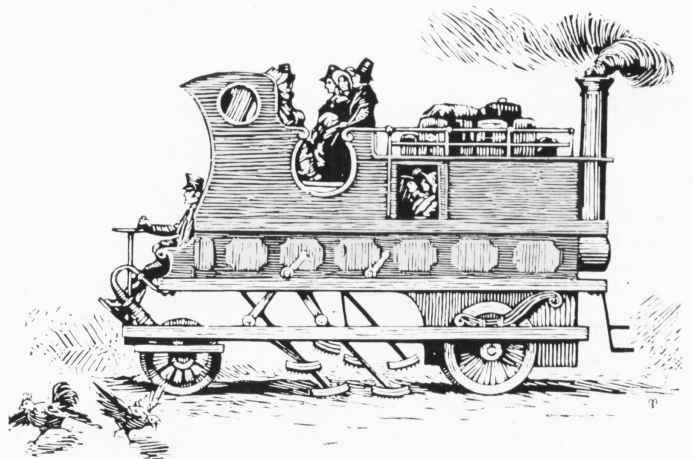
nished the drive wheel (in front) by means of pistons.

Unlike Sir Isaac Newton's car, Cugnot's "juggernaut" seemed to suffer acutely from lack of brakes. In its official trial before a group of high dignitaries of the French army and state, the car ran wild and after breaking up the triumphal reception with neatness and dispatch, ended its career by plunging through the solid masonry of the wall surrounding the Paris arsenal. Cugnot died in poverty and automobile inventing fell in the doldrums in France.

## England Scores

In 1784 England advanced a steam carriage designed by William Murdock. In appearance this carriage favored an invalid chair—a likeness apparently too potent for even staunch Britishers, and little was heard of it. Two years later, however, William Symington, a Scotchman, brought out a steam-driven model which signalized the development toward comfort as well as utility. This car was described as a "rear-driven locomotive carriage" and little amplification of that description is needed.

With this impetus, developments followed thick and fast in England. Richard Trevithick



*This early steam carriage (produced in 1824) made use of "mechanical horse's feet" as a means of locomotion. Its footprints, however, were soon covered by the sands of time.*

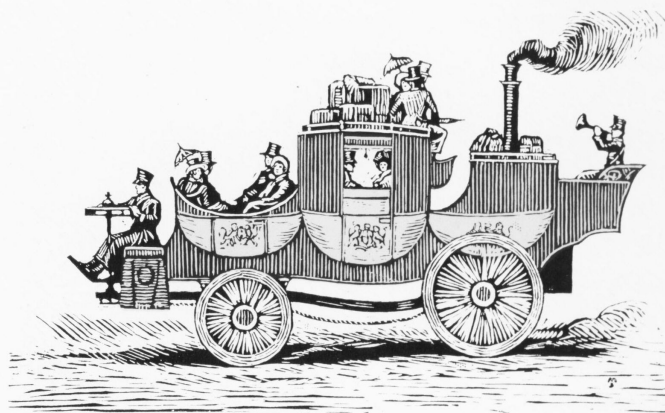
designed the "simplified" steam carriage in 1801 in which the passengers were seated about fifteen feet off the ground and which was driven by gears about thirty inches in diameter. The driver was seated outside—a position which had its disadvantages in inclement weather, but which afforded the driver a marvelous opportunity to jump in case of mishap.

A decade later one William Brunton was convinced that the practice of driving through the wheels was obsolete and he designed a car which was propelled by a pair of mechanical legs which ran along behind the car and literally dug their toes into the road. Believe it or not.

By 1829 a conveyance was evolved which might well wear the title of an ultra de luxe model. Ornate beyond the wildest dreams of Solomon in all his glory, this carriage was equipped with a closed compartment for those who preferred protection when racing along the highway at ten or fifteen miles per hour, as well as tiers of seats outside for hardier souls. Standard equipment included a coachman to "wind the coaching horn" and double in brass as boiler-stoker.

### America Enters Lists

America developed its first steam road car in 1825 when Thomas Blanchard appeared on the streets of Springfield, Massachusetts, with an "automobile" of his own invention. In trials and tests the car proved very satisfactory with particular ability in hill-climbing. In fact, it was such a success that Blanchard secured the endorsement of the Massachusetts legislature and the road appeared clear to success and fame—



*W. H. James, "a gentleman of superior knowledge," evolved this imposing steam coach in 1829.*

except that nobody seemed to want one of his cars. Residents of Springfield fought for room to watch the car perform and even a few of the braver souls rode with him and professed to enjoy the experience. But as for putting money into his creation, that was something else.

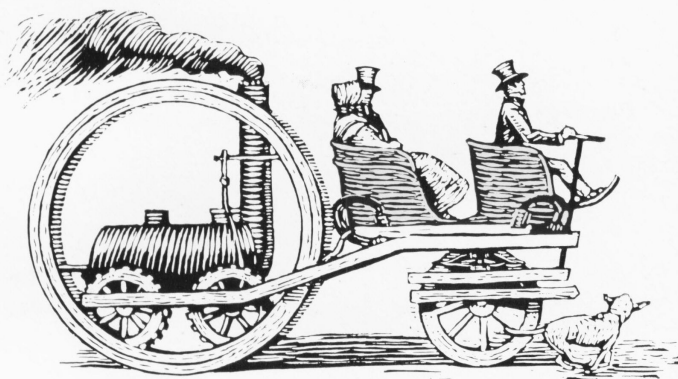
In England, popularity in somewhat more encouraging measure rewarded the efforts of inventors, and some stage lines were brought into existence using the steam road cars. But opposition grew until it overwhelmed the infant industry.

Late in the '90s the self-propelled vehicle again came prominently into the focus of the public eye. Electricity and gasoline offered mediums of power reducing weight and size in construction—the outstanding handicaps of previous experiments—and the automobile developed toward perfection with rapid strides.

### Studebaker Started Early

Recent evolution of the automobile is linked inseparably with the history and development of America's oldest builder of quality transportation—Studebaker. When Elwood Haynes made his historic tour on Michigan Avenue, Chicago, the name of Studebaker had already been identified with fine coach-craft for more than a generation. It was only natural that Studebaker should become interested in this new form of personal conveyance.

The first automobiles to bear this name were electrically propelled. After considerable experiment, however, Studebaker engineers were convinced that electricity did not provide maximum efficiency and utility and a gasoline-motor



*This development was known as the "squirrel cage"—but as a means of describing its method of power application rather than a reflection on the tastes of the 1822 "motorists."*

vehicle was developed.

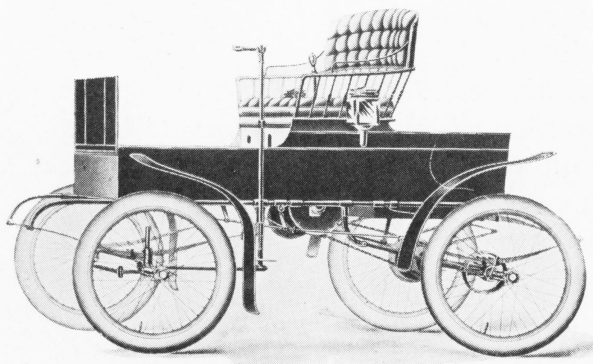
When it became apparent that the automobile would ultimately displace the horsedrawn vehicle entirely, Studebaker abandoned its carriage business and concentrated on automobile production. With aggressiveness and singleness of purpose characteristic of its activities throughout its entire history, Studebaker gathered together one of the most noteworthy groups of designers, engineers and metallurgists in the industry and became a leader among automobile producers as it had been the leader among fine coachmakers.

### Feminine Influence Appreciated

To provide for its cars beauty of line and color and the niceties of refinement so appreciated by feminine motorists, Studebaker has engaged the counsel of a group of internationally celebrated feminine authorities on art, planes, and colors.

Small wonder that with such intensive development in recent years, the automobile has progressed closer to ultimate perfection during the last two decades than in the previous two centuries.

Less than a decade after disposing of its horse-



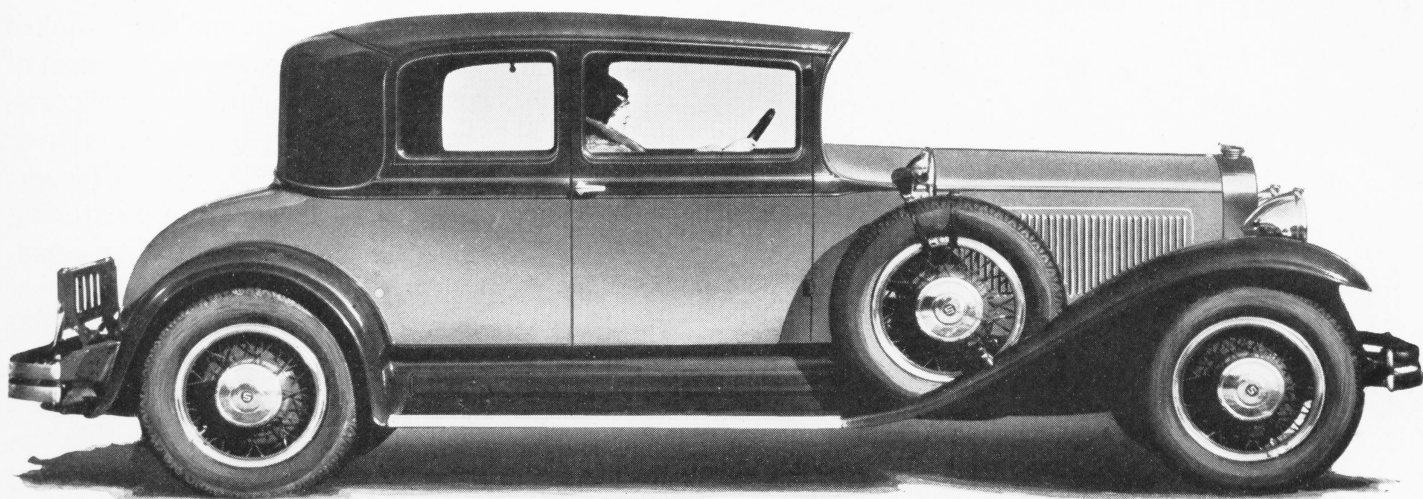
*The vehicle which signaled Studebaker's entrance into the manufacture of automobiles, an electric Runabout.*

drawn vehicle interests, Studebaker achieved a record which established motor cars as the champions of all motordom. Late in 1928, a stock model Studebaker President Eight traveled 30,000 miles in 26,326 consecutive minutes under official American Automobile Association

timing, checking and supervision. Nothing else except comets and meteors have traveled so far and so fast.

In the light of present-day operating costs, it is interesting to note that fuel consumption in cars of early days averaged about one-half bushel of coke per mile and approximately one hundred pounds of water. Stops were made about every eight miles because of impossibility of carrying sufficient fuel and water for longer intervals. From thirty minutes to an hour was required to get up "operating steam."

What the future may hold in the way of new developments in automotive transportation remains for the future to disclose. With the science, arts and crafts now devoted to the perfection of motor cars, who can say what another generation will bring?



*Studebaker's President Eight State Victoria for five, Studebaker's latest achievement in 78 years of transportation development.*

Photo Courtesy  
Cleveland  
Chamber of  
Commerce

# Swinging Around the Circle with Scovill

Cleveland  
Number 6

Cleveland's  
New Union  
Station  
Group



ON July 22, 1796,—a few short years before The Scovill Manufacturing Company was begun at Waterbury—the City of Cleveland, Ohio, was laid out. Today The Scovill Manufacturing Company is one of the largest single brass fabricating plants in this Country, and Cleveland has grown to be the fifth city in the United States in both population and volume of manufactures.

There is another very definite tie, however, between Scovill and Cleveland. Not only did this organization and this city have their inception at about the same time, but the City of Cleveland, or Cleaveland, as it was first known, was founded by Connecticut people.

When other states ceded their western lands to the general government, Connecticut excluded from the release the territory in the northeastern part of the Ohio of today. Connecticut was said “to reserve” this territory and soon the expression “the Connecticut western reserve” worked its way into legal and historical documents.

In May 1792 the General Assembly set apart 500,000 acres lying across the western end of the re-

serve and bounded on the north by Lake Erie for the benefit of her citizens who had suffered losses by British incursions in the Revolution.

In September 1795 a Legislative Committee sold the remainder of the western lands to the Connecticut Land Company, a company organized to purchase these lands. In the Spring of the following year, 1796, Directors of this company sent out a surveying party of 50 persons under the command of Gen. Moses Cleaveland, of Windham County, Connecticut. Gen. Cleaveland negotiated with the Indians in the territory and bought the land from them, paying them £500 (or its equivalent in trade), two beef cattle and 100 gallons of whiskey.

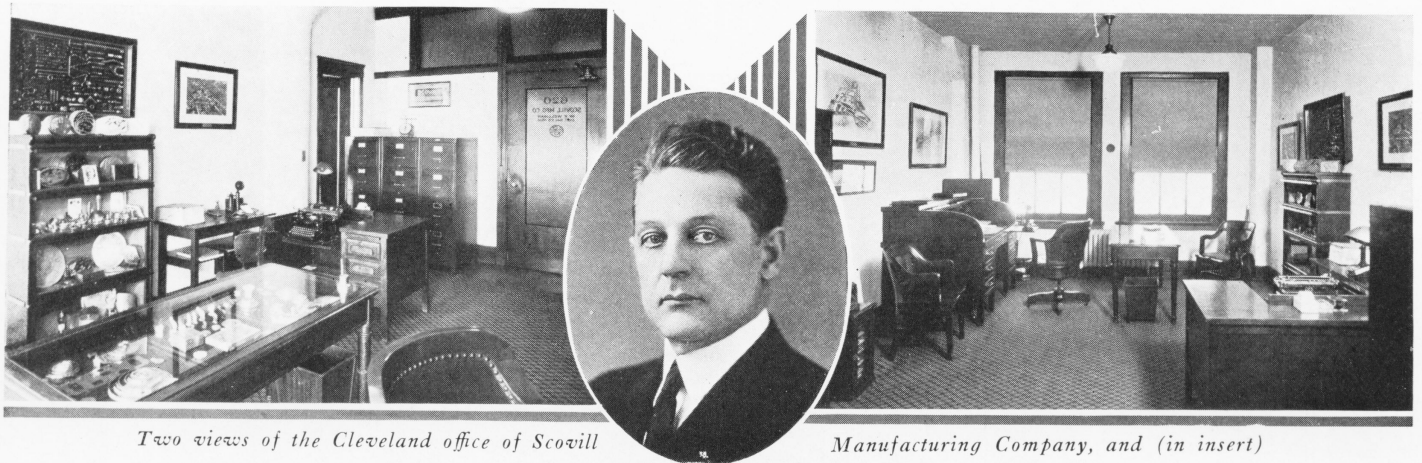
On the 22nd of July, 1796, the General and his party arrived at the mouth of the Cuyahoga River, which was chosen as the site for a city. The first bunch of settlers came out the following year, and before long the town of Cleveland had a population of 30 families.

For more than a century Cleveland's growth has been consistent, unmarked with either sudden booms or depressions. Each decade has witnessed a sound,



Photo by Ernst

The Penton Building, where Scovill's  
Cleveland office is located.



Two views of the Cleveland office of Scovill

Manufacturing Company, and (in insert)

W. K. Wellman, District Sales Manager.

substantial progress, solid in its structure. The population as shown by the 1920 census was 796,841. The estimated population for 1928 as compiled by the Bureau of Census method was 1,032,222. The Cleveland City Directory for 1929 shows an increase to 1,209,497.

To a considerable extent, Cleveland's steady growth may be attributed to the diversity of manufacture which the city enjoys. Some of the important industries from the standpoint of value of production are: iron and steel; automobiles, parts and accessories; paints, oils and varnish; electrical machinery, appliances and supplies; men's, women's and children's clothing; chemicals; plumbing goods; special machinery; knit goods and many others.

#### Cleveland Office Opened 1918

The Cleveland offices of The Scovill Manufacturing Company were opened in the old Leader-News Building in 1918, with Mr. W. M. Ernst in charge. Sales activities centered mostly in Cleveland and immediate vicinity. Transportation facilities at that time had not been speeded up and in consequence, carload shipments only could be handled advantageously, thus limiting the customers to those who could anticipate their requirements some little time in advance.

The demand for Scovill Products grew rapidly and as some of the railroads had put into effect through package car service, it was possible to accept orders for material in less than carload lots, thus enabling the company to serve a vast number of customers who had shown a preference for copper alloys in the form of Rod, Sheets, Tube and Wire, made by a mill with over 100 years of actual manufacturing experience to its credit.

#### Wellman Joins Cleveland Staff

In 1920 Mr. W. K. Wellman became associated with the Cleveland Office. Mr. Wellman had considerable Brass experience and in 1926, upon the resignation of Mr. Ernst, became the Company Representative in the Cleveland District. Under his able direction the consumption of Scovill mill products and manufactured articles in that district has steadily grown. Territorial changes have been made from time to

time, in keeping with the growth of manufacturing in various areas and for realignments caused by the opening of other District Offices. The Cleveland Office now serves the Northern part of Ohio, the border counties of Pennsylvania and the State of West Virginia.

In addition to the complete Scovill line of brass mill prod-

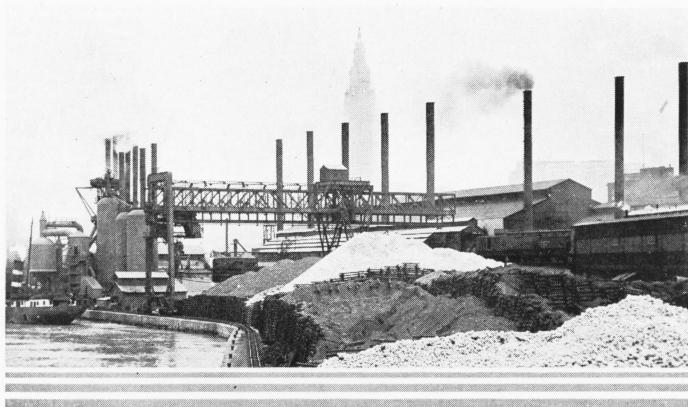


Photo Gallowsay

Illustrative of the industrial and commercial activities of Cleveland is this picture, showing lake steamer entering Cuyahoga River, and piles of limestone and iron ore in the foreground. In the background steel mills and beyond spire of the new Terminal Tower.

ucts in the form of Rod, Sheets, Tube and Wire made from the various copper alloys to meet the most exacting manufacturing requirements, there is also sold products of the Machine and Cap Screw plants, both Brass and Steel, as well as Stampings and Screw Machine products.

### Cleveland Fast Growing City

Cleveland is now one of the fastest growing industrial cities in the United States. A comprehensive study of Cleveland's resources discloses that the modern city of Cleveland offers many advantages to manufacturers and business men, wage earners and salaried workers and to families.

Cleveland's bank clearings now average \$18,700,000 daily, and the city's retail sales have broken all previous records in the last two years.

Not only is the Cleveland market one of the great buying territories of the Nation but is also the source of raw material, so that local factories profit on both incoming and outgoing ship-

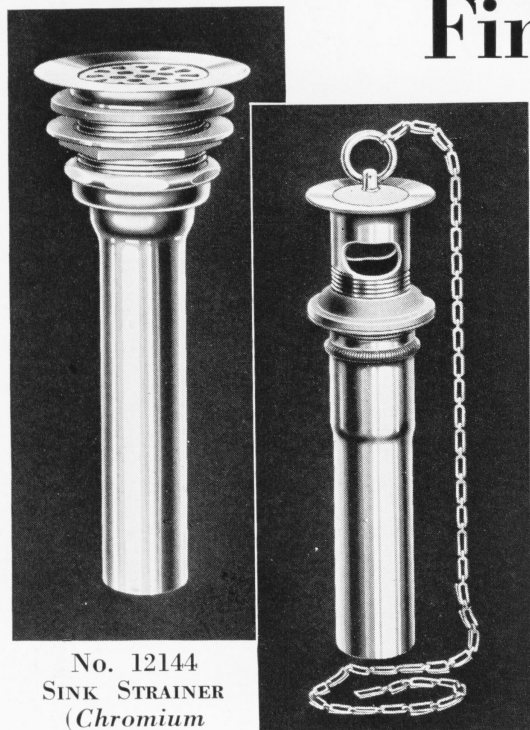
ments. In this market is to be found \$1,095,000,000 of the country's total of \$62,713,714,000 of manufactured products; here are 2,212 of the 187,390 plants of the nation; here are 440,000 of the 8,384,261 wage earners. Cleveland wage earners are paid \$201,000,000 annually.

### A Transportation Center

Radiating from Cleveland are seven railroads; three electric lines, twelve bus lines, three passenger ship lines and six passenger airplane lines with many others scheduled to go into operation soon. Scovill Manufacturing Company with its vast manufacturing resources together with these excellent facilities for transportation is able to serve over 75% of the industries in Greater Cleveland.

Scovill's Cleveland Office is located in the Penton Building. During the twelve years of its establishment there has been a satisfactory demand for the sale of Scovill Products in the Cleveland Territory.

## Practical, Husky and Finished in Chromium



No. 12144  
SINK STRAINER  
(Chromium  
Plated)

No. 13011  
P. O. PLUG

Here are two items in Scovill's line of Plumbers' Brass Goods which are built to withstand the most severe service. This Sink Strainer and Pull Out Plug for Basin are made of seamless brass tubing, finished in chromium. When you install these Scovill products you may be sure they will not crack or split. They give satisfactory, durable service where nothing less will suffice.

The chromium finish puts these products practically in the class of nickel-silver goods—and yet keeps them within a reasonable price range. They will stay bright and new without polishing; the original sparkle returns when they are rubbed with a cloth.

*Ask your plumber today about  
Scovill Plumbers' Brass Goods*

PLUMBERS' BRASS GOODS DIVISION  
WATERVILLE, CONNECTICUT

A DIVISION OF THE SCOVILL MANUFACTURING CO.

A SCOVILL PRODUCT



**SCOVILL**  
PLUMBERS' BRASS GOODS

# A BALLCOCK MADE FROM GENUINE INGOT METAL

This standard **M-VB** Ballcock is made from genuine red ingot metal and has a bronze seat together with a special composition seat washer which is fitted to the plunger by a brass retaining cap. The standpipe is either  $\frac{1}{4}$  inch cast or iron pipe size seamless tubing. Hush tube is  $\frac{1}{2}$  inch 20 gauge.

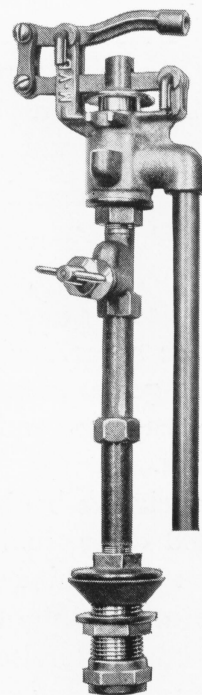
Tapped  $\frac{1}{4}$ —40 for refill tube,  $\frac{1}{2}$ —20 for float rod. The coupling nut is reamed for  $\frac{3}{8}$  inch iron pipe size supply pipe. Furnished with or without 10-inch refill tube and 10-inch float rod as ordered.

Look for the red **M-VB** on all closet tank fittings, the Scovill-made standard of excellence.

A SCOVILL PRODUCT

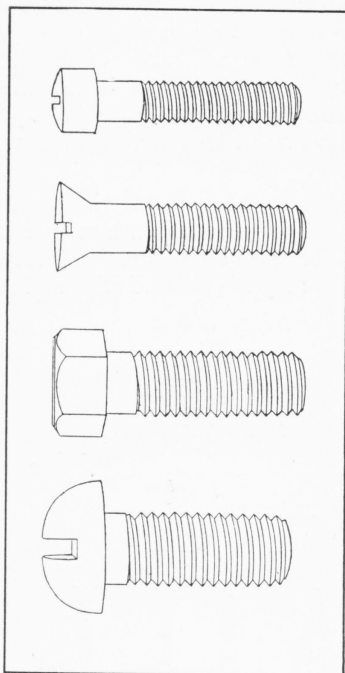


Scovill Manufacturing Company  
 MORENCY-VAN BUREN DIVISION  
 Sturgis Michigan



**M-VB**  
 Ballcock No. 6

# HERE ARE DEPENDABLE CAP SCREWS



Why not play safe? Make sure your customer doesn't lose money because of an inferior product—recommend cap screws that you know are dependable.

Scovill Cap Screws are always the same—strong, accurate, clean. The efficient, up-to-date manufacturing processes used by Scovill prevent any slip in quality. And there is always a large supply kept on hand in Waterbury, Chicago, and Newark.

# SCOVILL SHEET METAL IS THOROUGHLY INSPECTED

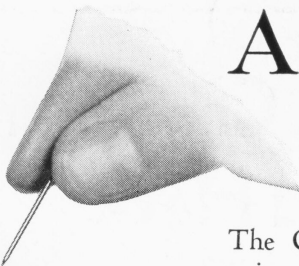
Every inch of Scovill sheet brass is thoroughly inspected by keen-eyed men who have had long experience at this work.

The rolls of brass are placed on mandrels and slowly un-



reeled before the inspectors. The inspection benches have special daylight lighting units to aid them. Whenever a defective portion is found, it is cut out. Scovill Sheet Metal is all good metal.

Carried by stationery dealers everywhere.



## A Pin a Second from this New Pin Dispenser

The Oakville-American Division of Scovill Manufacturing Company is now introducing the new Oakville TAK-A-PIN, an ingenious and useful device for dispensing pins.

The TAK-A-PIN, a mechanical appliance, dispenses pins to the fingers with the heads up. It has a capacity of 200 pins, and, so readily and easily does it deal out the pins, it has earned for itself the appropriate slogan "A pin a second."

Simple inside mechanism and a solid bakelite case insure long life to TAK-A-PIN. Furnished in three attractive colors—walnut, green and mahogany—it is ornamental as well as useful.



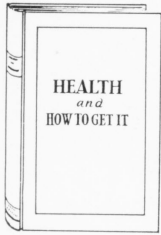
For Pin perfection, use TAK-A-PIN filled with Oakville-American pins

A SCOVILL PRODUCT



OAKVILLE-AMERICAN PIN DIVISION  
Scovill Manufacturing Company  
WATERBURY, CONN.





# THIS BOOK IS *NOT*

# FOR SALE !

"*Health and How to Get It*," this master volume on massage is detailed and comprehensive. It tells what high authorities recommend for all ailments. It describes 109 separate massage treatments. It is profusely illustrated with photographs, diagrams and scientific charts.

**But it is not for sale!** It is given free with every Hamilton Beach Vibrator.

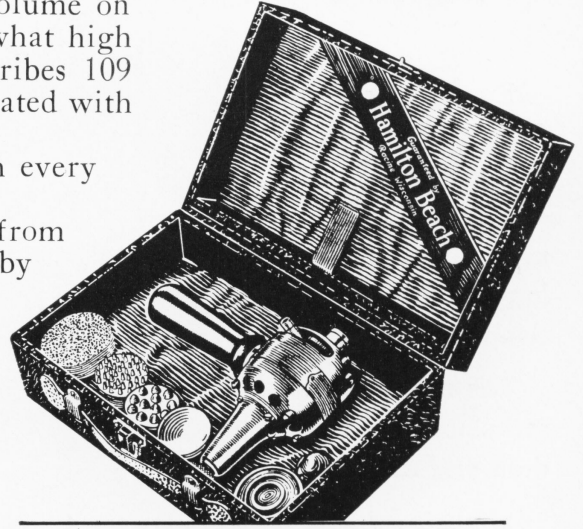
Without this book you cannot get full benefit from your vibrator. Make certain of getting a copy by choosing the Hamilton Beach Vibrator. There are four Hamilton Beach Models of different prices. But all of them are guaranteed. With each of them you get free a copy of this valuable book "*Health and How to Get It*."

## Hamilton Beach

### MANUFACTURING COMPANY

Racine Wisconsin  
SUBSIDIARY OF

Scovill Manufacturing Company



A SCOVILL PRODUCT



## Ask Your Plumber What Characteristics Your Piping Should Have

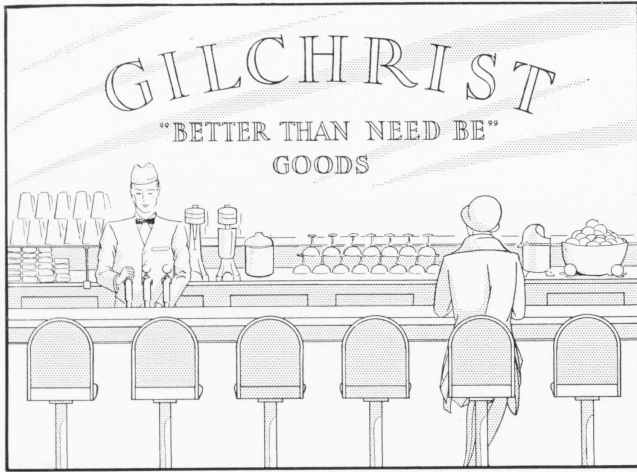


Let your plumber be the judge. Ask him what characteristics your piping should have.

First, he'll tell you that you should use brass pipe. For brass will not rust and you will be sure of an adequate supply of clean, clear, healthy water. Next, he'll tell you that your pipe should be easy to install.

And that is exactly what Scovill Brass Pipe was designed for—ease of installation. It is free cutting, it threads freely, and it will stand most bends without the trouble and expense of annealing. Install Scovill Brass Pipe in your home today.

# Now you may have Gilchrist equipment in COLORS



In line with the modern trend, Gilchrist now presents to the modern soda fountain the famous Gilchrist Electric Drink Mixer No. 25, *in colors*, and the new and improved Gilchrist Ice Cream Dishers, No. 35, *in colors*.

The Mixer, built to the same reliable standards that have gained such widespread favor for Gilchrist products, is now furnished with the upright piece in four colors—ivory, green, black and white. And the dishers, now made with shorter handles for easier use, and in a manner that allows them to be cleaned thoroughly with a minimum of trouble, are furnished in nine different sizes and shapes—with nine different colored handles. Each size has a different colored handle for greater ease in selecting the correct size.

A SCOVILL PRODUCT



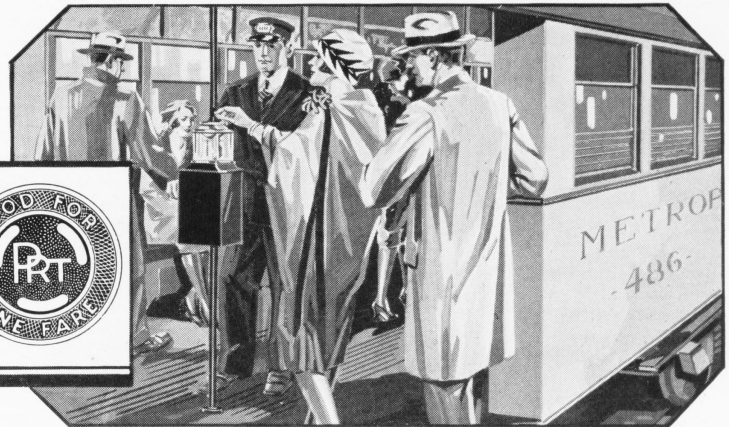
THE GILCHRIST COMPANY  
NEWARK, NEW JERSEY  
SUBSIDIARY OF  
SCOVILL MANUFACTURING COMPANY



# TOKENS



Scovill-made street car tokens are presented by thousands of people daily all over the country. Some thick, some thin, some big and some little tokens. But all of them bright and shiny.



For nearly one hundred years the Scovill Manufacturing Company has been making coins, medals, and planchets. Scovill workmen are experienced in fine die work.

Traction companies using Scovill tokens have learned their high quality and have found it the best insurance against counterfeiting.

# SCOVILL MANUFACTURING COMPANY, Waterbury, Conn.

The Oldest Brass Company in America and One of the Largest in the World

## EXECUTIVE OFFICERS

E. O. GOSS.....*President and General Manager*  
J. H. GOSS.....*Vice President and General Superintendent*  
C. P. GOSS, JR.....*Vice President and Supt. of Mill Depts.*  
G. A. GOSS.....*Vice President*  
L. P. SPERRY.....*Treasurer and Comptroller*  
W. M. GOSS.....*Secretary*  
F. J. GORSE.....*Assistant Treasurer*  
B. P. HYDE.....*Assistant Secretary*  
T. B. MYERS.....*Assistant Secretary*

## BRANCH OFFICES - WAREHOUSES - FACTORIES

CHICAGO, ILL.  
1229 West Washington Boulevard.  
Scovill Manufacturing Co., George S. Lemon, District Manager.  
Plumbers' Brass Goods Division, and Morency-Van Buren Div., C. A. Baldwin, District Sales Manager.  
Oakville-American Pin Division, C. W. Anderson, Sales Office Manager.  
Hamilton Beach Mfg. Company, K. C. Bonde, Representative.  
(Office and warehouse. Stocks carried of brass mill products, fasteners and cap screws, as well as products of Plumbers' Brass Goods Division, and Oakville-American Pin Division.)  
900 Franklin St.  
A. Schrader's Son, Inc., Sales office and warehouse.  
A. E. Fay, Manager.

NEW YORK CITY  
280 Broadway.  
Scovill Manufacturing Company, George T. Power, District Manager.  
Plumbers' Brass Goods Division, and Morency-Van Buren Div., L. S. Rothwell, District Sales Manager.  
Oakville-American Pin Division, E. F. Brown, Sales Office Manager.  
Hamilton Beach Mfg. Company, H. F. Shotten, Representative.

ATLANTA, GA.  
95 Fairlie Street.  
Scovill Manufacturing Company, D. W. Copeland, District Sales Manager.  
Plumbers' Brass Goods Division, and Morency-Van Buren Div., H. J. Mason, District Sales Manager.

PHILADELPHIA, PA.  
Franklin Trust Building, 15th and Chestnut Streets.  
Scovill Manufacturing Company, Alfred C. Maule, District Sales Manager.

BOSTON, MASS.  
80 Federal Street.  
Scovill Manufacturing Company, Harry J. Lehman, District Sales Manager.  
Plumbers' Brass Goods Division, and Morency-Van Buren Div., W. M. Hall, District Sales Manager.  
170 Summer Street  
Hamilton Beach Mfg. Company, H. B. Perkins, Representative.

PROVIDENCE, RHODE ISLAND  
183 Public Street.  
The Scovill Manufacturing Corporation, Frank J. Collins, Representative.  
A branch of the Boston office. (Office and warehouse. Stocks carried of brass mill products.)

TRENTON, NEW JERSEY  
Muirhead and Ott Streets.  
Plumbers' Brass Goods Division, Morency-Van Buren Div. (Office and warehouse. Stocks carried of brass tank fittings.)

CINCINNATI, OHIO  
49 Central Avenue.  
The Scovill Manufacturing Corporation, F. L. Wiggers, District Sales Manager, Office and Warehouse. Stocks carried of Brass Rod.  
Under general supervision of the Chicago office.

CLEVELAND, OHIO  
1213 West 3rd Street.  
Scovill Manufacturing Company, W. K. Wellman, Representative.

DETROIT, MICHIGAN  
General Motors Building.  
Scovill Manufacturing Company, Edward McCann, District Sales Manager, Room 7-251.  
A. Schrader's Son, Inc., R. W. Davis, Mgr. Room 12-221.

SAN FRANCISCO, CALIFORNIA  
434 Brannan Street.  
The Scovill Manufacturing Corporation, George D. Engle, District Sales Manager.  
Plumbers' Brass Goods Division and Morency-Van Buren Div. K. M. Reid, District Sales Manager.  
Oakville-American Pin Division, Charles R. Barry Co., Representatives.  
(Office and warehouse. Stocks carried of brass mill products.)  
926 Howard Street  
Button and Fastener Division, Dolliver & Brother, Representatives. Branch at Los Angeles. Service Branches, Portland, Oregon, Seattle, Wash.

LOS ANGELES, CALIFORNIA  
2261 East 15th Street.  
The Scovill Manufacturing Corporation, Ellsworth D. Goldsmith, Representative.  
A branch of the San Francisco Office.  
(Office and warehouse. Stocks carried of brass mill products.)  
1151 So. Broadway.  
A. Schrader's Son, Inc., of California, John Hoerger, Pacific Coast Manager.

1134 So. Main St.  
Button & Fastener Division, Dolliver & Brother, Representatives.

AKRON, OHIO  
705 Johnston St.  
A. Schrader's Son, Inc., of Ohio, M. C. Stevens, Mgr. (Factory, warehouse and Sales Office.)

TORONTO, CANADA  
334 King Street, East  
A. Schrader's Son, Inc., S. A. Howell, Mgr. (Factory, warehouse and Sales Office.)

LONDON, ENGLAND  
26-29 New Street, Westminster, S. W.  
A. Schrader's Son, Inc., F. H. Gerrans, Mgr. (Assembling plant, warehouse and Sales Office.)

PARIS, FRANCE  
91 Bis Avenue de Terne  
A. Schrader's Son, Inc., of France, James Sinstadt, Mgr. (Assembling plant, warehouse and Sales Office.)

BERLIN, GERMANY  
Reichsstrasse 89-111, Berlin Charlottenburg 9.  
A. Schrader's Son, Inc., Otto Schober, Sales Representative.

MELBOURNE, AUSTRALIA  
422 Little Collins St., Stock Exchange Bldg. Post Office Box 1922.  
A. Schrader's Son, Inc., Proprietary Limited. E. P. Howard, Mgr.

THE HAGUE, HOLLAND  
13 Korte Voorhout.  
European Sales Office, Scovill Manufacturing Co., L. van Herk, Manager.

## Divisions and Subsidiaries

### MAIN PLANT DIVISION WATERBURY, CONN.

Manufacturers of brass, bronze and nickel silver alloys in the form of rod, sheet metal, wire and tubing. Specializing in the manufacture of brass goods of all descriptions: buttons and fasteners, thimbles, Queen Anne burners, ferrules, hinges; steel and brass cap and machine screws, containers, automobile parts, forgings, electrical and radio parts.

C. P. GOSS, JR., *Vice President and Supt. of Mill Depts.*—A. C. LUSHER, *Supt. of Mfg. Dept.*  
E. S. SANDERSON, *Sales Manager*—B. P. HYDE, *Sales Promotion*—BRINTON CARRIGAN, *Marketing Councilor*

A. SCHRADER'S SON, INC., Brooklyn, N. Y.  
Makers of Pneumatic Valves Since 1844

W. T. Hunter, President and General Manager; F. Trismen, Secretary and Treasurer; H. M. Scheck, Assistant Treasurer; R. L. de Brauwere, Sales Manager; A. G. Underwood, Manager, Accessories Sales; M. H. Tisne, Manager Manufacturers Accessories Sales; P. L. Mitchell, Manager Dealer Relations; W. J. Kirkpatrick, Service Manager; S. D. Hopkins, Advertising Manager; S. T. Williams, Superintendent.

### PLUMBERS' BRASS GOODS DIVISION

Waterville, Conn.  
Bath and Shower Fixtures, Flush Valves and Miscellaneous Plumbers' Brass Goods  
W. W. Bowers,  
Ass't. Secretary and Sales Manager.

THE GILCHRIST COMPANY  
Newark, New Jersey  
Soda Water Fountain Supplies, Electric Drink Mixers, Ice Cream Dishes, Ladles, Ice Picks, Spoons, Soda Glass Holders, Lemon Squeezers, etc.  
Thomas Jameson,  
Treasurer and General Manager.

### OAKVILLE COMPANY DIVISION, AND OAKVILLE-AMERICAN PIN DIVISION

Oakville, Conn.  
Brass and Steel Common Pins, Safety and Special Pins, Paper Clips, Fasteners and Clasps, Piano Hardware, etc.  
Bennet Bronson, Vice President; George Boden, General Manager; C. F. Doherty, Ass't. Secretary; C. C. Shee, Sales Manager, Oakville-American Pin Division.

MORENCY-VAN BUREN DIVISION  
Sturgis, Michigan  
Plumbers' Brass Goods, Tank Equipment, Flush Valves, etc.  
R. H. Van Buren, Manager.  
Tracy H. Van Buren, Ass't. Manager.

HAMILTON BEACH MANUFACTURING COMPANY  
Racine, Wisconsin  
Fractional Horsepower Motors, Electric Sewing Motors, Vacuum Cleaners, Electric Drink Mixers, Vibrators, Drink Heaters, Hair Dryers, and other Electrical Household Appliances.  
T. B. Myers,  
Vice President and General Manager.  
E. Q. Bangs, Secretary.

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*and every one equipped with  
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This tiny mechanism is no bigger and weighs hardly more than a cotter pin. Yet its absence would cripple the most powerful car that runs on pneumatic tires.

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# Schrader

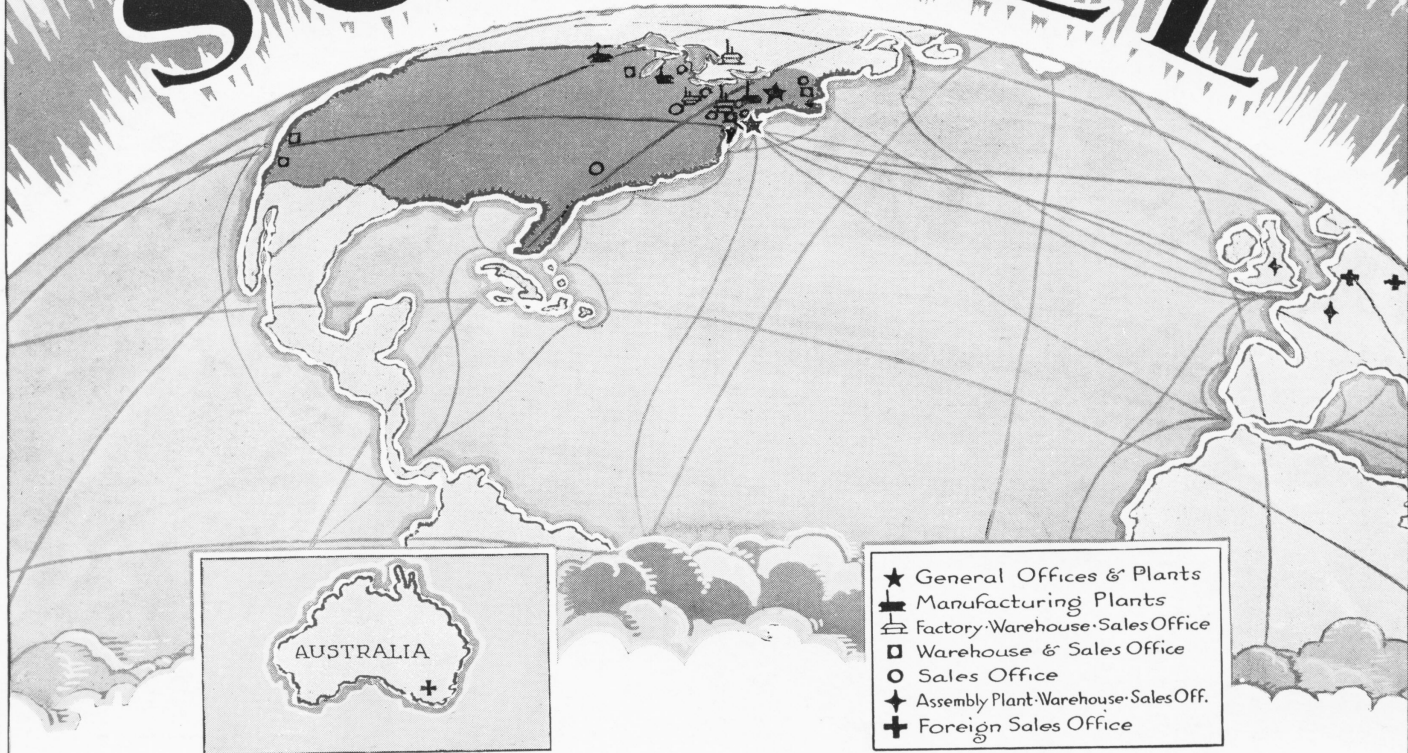
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TIRE VALVES

TIRE GAUGES

# SCOVILL



## Scovill Service

The Scovill Casting Department is prepared to produce cuprous alloys for special manufacturing purposes—the Scovill Art Department is available for the development of special designs—Scovill's Engineers are ready to cooperate with manufacturers to overcome any manufacturing problems—the Scovill Laboratory is ever at work providing

the scientific supervision that governs the manufacture of all products of Scovill's mills and factories.

SCOVILL SERVICE is inclusive and complete. The company is prepared to furnish in almost unlimited quantities partly fabricated goods as well as parts and finished products.

*Investigate Scovill's manufacturing facilities.  
Send a sample or description of your product for  
prices, or ask for aid in solving your problems.*

*General Offices and Main Plants*

**SCOVILL MANUFACTURING COMPANY**  
WATERBURY, CONN.

*European Sales Office: SCOVILL MANUFACTURING COMPANY*  
13 Korte Voorhout, The Hague, Holland