supply and distribution of minerals and nitrogen, and in most cases an additional supply improves plants.

According to Lipman, there is an average of ten tons or more per acre of organic matter in all cultivated soils, and some have many times this amount. The West Virginia experiment station found an average of 42½ tons per acre in fertilized soil, compared with 35 tons in the unfertilized. In the black soils of the middle west there are upward of 50 tons per acre and largely because minerals were deposited in abundance there in geological times. With these minerals in abundance, the plants have done more work than in thinner soils.

Stoddart says: "During daylight on a bright day, one square meter of leaf surface manufactures about one gram of carbohydrate material in one hour. For an acre of corn about the time of tasseling, there is manufactured about 170 pounds of carbohydrates in one day." Dugger says: "The production per square meter of leaf surface may be about 1 gram of organic matter per hour. This gram of sugar involves the use of the carbon dioxide contained in 2.5 cubic meters. A vield of 300 bushels of potatoes on an acre involves. including tops and roots, about 5400 pounds of water-free substance, or all the CO, to a height of more than one and one-third miles over the acre, assuming no gain meanwhile."

By the aid of minerals, these carbon compounds are first made and then distributed throughout the plants to roots, stem and leaves, and constitute the tissue of the plant. In this form plant material is lef at the end of the crop season, or at any time that it happens to be arrested in growth, and is the principal organic matter so abundant in the surface soil. This work of making organic matter depends upon the capacity of plant roots to take up water, which leads us to consider the activity of roots and of their relation to stem and leaf. The amount of organic matter manufactured by plants depends upon the extent of the root system as well as upon the leaf surface. In some plants the root system about equals in weight the tops, in others the root system is much larger while in still others it is smaller.

### Root System Extensive

There are about 600 million grass seeds sown to the acre of bent grasses, and the root system of each plant after a few weeks of healthy growth would reach a total length including the infinite number of root hairs, of a minimum of 20 yards. This makes a total length of roots in an acre of grass of about 7,000,000 miles, or enough to stretch around the earth at the equator almost 300 times. An acre of pumpkin vines are estimated to have about 50,000 miles of root system, and an acre of corn near 150,000 miles, depending of course upon the number of plants per acre, and the growth of the plants. Grass will be seen to have a distinct advantage of other plants in the production of fibrous roots.

This immense root system of plants combined with tops, leaves and stem makes a total annual acreage production of about 5 to 10 tons of grass, 8 to 15 tons of corn, including the ears, and as much as 60 tons of mangles in a bumper crop. But organic matter lasts 40 years in cultivated soil—at least there are traces of it that long according to Lawes and Gilbert. Within these forty years, the soil accumulates a great mass of organic matter in various stages of decay, amounting to in some cases as much as 100 tons per acre.

To perform these miracles of growth. plants require large volumes of water, a lot of leaf surface, and extensive root system and the proper proportions of minerals to be used as catalyzing agents. The capacity of a plant to take water into its system is vitally related to the strength of the soil solution as well as to the extent of the root system. In order for a plant to use water economically, it must have minerals in the right proportions. On the average a plant must use 500 pounds of water to manufacture one pound of organic matter based on dry weight. Poor crops in thin soils often will require twice as much, while good crops in fertile soils properly supplied with mineral matter will do the same work on half the amount of water.

Stoddart observes that "only the very fine root hairs, located near the growing tips and extending but a short distance back of them, act as absorbers of plant The root hairs are long, food matter. slender single cells. The walls are very thin, composed largely of cellulose and are easily pervious to liquids. Under normal conditions of growth, water passes into the root hairs together with the dissolved plant food. The rate at which water enters plants depends upon the extent of the root system and the number of root hairs. Whatever we can do to insure a larger number of roots and root hairs helps to make a better, more fully developed plant."

The application of mineral plant foods to the soil in the vicinity of the germinating seeds tends to promote early root growth. At the Iowa Experiment station, Professor F. B. Smith has found that "the desirable effects of fertilizers on early growth, maturity and yield appeared to be in proportion to the development of the roots of the plants, and the greatest development of both primary and secondary roots was secured when the fertilizers applied in the hill, thoroughly were mixed with the soil." At the University of Nebraska, Professor J. C. Weaver reported that roots in the fertilized zone of the soil tended to branch more freely and had an average of twice the number of root hairs as those in the unfertilized zone. According to these authorities, the way to increase the water capacity of plants is to apply mineral fertilizer to the soil.

### Soil Sanitation Value

Mineral plant foods are related to soil sanitation. Dr. John M. Coulter reported several years ago "that roots of certain plants excrete substances which impede further root activity." If this phenomenon proves to be general, as now seems likely, the invasion of new soil areas by roots may make possible their escape from the substances which they give off or which arise by subsequent decay. Even in the case of cultivated crops, it is probable that fertilizers are of less value as sources of plant food than in their action upon soil constituents and in counteracting the noxious effect of root excreta or of decaying vegetation. Certain root enzymes are oxidizing agents of much importance and assist in the destruction of deleterious soil compounds; however, when these compounds are present in excess, the oxidizing action becomes lessened and the addition of nitrates and of other fertilizer salts is of great value." It would be difficult for us to imagine how organics in a fertilizer would effect this result mentioned by Dr. Coulter since the trouble he speaks of is due to excreta from roots and from decaying organic matter.

Organic matter is often considered the vitalizing part of the soil. In reality it indicates that at some time in the past there was an ample supply of mineral matter and intense plant activity. That organics still exist in the soil also indicates that plants still have access to minerals to keep up the manufacture of organic compounds. A gradual decline of organics in cultivated soils indicates a corresponding decline in mineral solvents, and a lessening of the capacity of plants to grow organic matter. When these mineral solvents are restored, organic matter begins to accumulate.

My investigations do not permit me to undervalue organics in the soil. In quantities they improve its physical properties. To apply manures as nitrogenous fertilizers has long been the custom among thrifty farmers. Where it can be had at a cost in keeping with its behavior in the soil, it should be applied and not wasted. When we use organic nitrogen in a mixed fertilizer on a 50-50 organic and inorganic basis, we do not accomplish what we have thought. For instance, if the mixture is made up of 400 pounds of some organic matter per ton, and we apply 500 pounds of the mixture per acre, this would average 100 pounds of the organics per acre or about 1/3 ounce per square yard, or 1/27 ounce, or less than a thimble full to each square foot of soil. This could not possibly influence the physical properties of the soil, when there are already 500 to 2,000 times this amount in the same soil area. If it is a slow acting nitrogen we are seeking, we have many times the amount in the organic matter already stored in the soil.

There is no doubt but that we will for a long time be able to buy organic nitrogen, and when it is used as a fertilizer we should use it with a full knowledge of what it is and what it does. According to Sir John Russell, the plants rarely ever get more than 50 per cent of the total mnitrogen of organic compounds. In the decay of the material the bacteria of the soil get a heavy toll, and much of the nitrogen also goes off in the form of gas. The higher plants get what is left after this heavy toll has been taken out. There is a popular belief that the one virtue of organics is that they do not leach. Our knowledge of the law of the decay of plant residue clearly shows us that organics leach upward in the form of gas, far more than minerals leach downward in the soil solutions. Prof. John B. Smith of the Rhode Island Experiment Station reports in Soil Science, November, 1928, page 247:

"Nitrates moving downward after leaching rains were often retained in the subsoil layers, and at such times the quantities there present were in excess of those remaining in the surface layer, under midsummer conditions. Nitrates and nitrites leached from the upper soil layROUND GRIP

## EVERYGOLFER A PROSPECT FOR ONE OR MORE "" STROKE SAVERS

AND THE SQUARE GRIP

Stroke Savers have the famous Beckley-Ralston Square Grip. Coupled with perfect balance this grip induces automatically just the correct directional accuracy as the club head comes into the ball. Note the illustrations—the round grip with no assurance of direction while the square grip sends the ball on the way in a straight line exactly as intended by the player.

Beckley STROKE-SAVERS

Extra golf club sales. Added golf club profits. Stroke Savers do not displace regular clubs excepting the Putter. They do not interfere with sales of other clubs—they are in a class by themselves—are used only for shots on or near the green. Nationally advertised — p o p u l a r everywhere because they reduce the uncertainty of the short game—and enable the average golfer to shoot lower scores. Stroke Savers are the biggest selling special golf clubs ever made—the only golf clubs with a definite guarantee of performance behind them.

83



## THE BECKLEY-RALSTON COMPANY Manufacturing Division,

70 W. 22nd St., Chicago, III.

Makers of Stroke Saver Short Game Irons —Hex Grip Woods and Irons—The Trapshooter Niblick—The Walloper for those who can't use the Woods-Bronson Golf Shoes. ers were returned by the upward movement of soil water to replace that lost from the surface by evaporation."

Organics that are grown in the soil are better placed than those applied to the soil. Of the hundred pounds or more produced daily on each acre, it will be understood that about half of it is beneath the soil in the form of stocks, stolons. roots and root hairs, and well distributed in the soil. We estimate from information taken from scientific records that each hundred pounds of a good mineral fertilizer will produce at least an additional ton of organics, and will leave this in the place where it will do the most good.

The principal difference between organics and inorganics so far as plant growth is concerned is that organics must be reduced to inorganics before they can be used by the plants, while soluble inorganics are used directly by plants. Except in simplified or inorganic form, organic compounds have practically nothing to do with plant growth. Except to maintain an even supply of soil water, and to influence soil temperature, they are not related directly to plant activity and plant growth. Soil containing a high per cent of humus can be used frequently to advantage, to smooth over or to level the surface of lawns and gardens and golf greens. But it should always be remembered that it has a very low percentage of plant food elements and should not be substituted for mineral solvents commonly found in fertilizers.

Almost 250,000 species and varieties of plants have already been discovered and named by botanists. The large number of kinds of uncultivated plants is the result of the organized power of the plant kingdom to adjust itself to the simpler chemical elements and get the most out of the environment. Artificial plants or cultivated plants present a somewhat different They have been coaxed and problem. petted and helped and fed and made to do many things inconsistent with the blind forces of unaffected nature. By the constant aid of man they have been adjusted to man's needs-and often at a terrible cost to the species and varieties of plants.

### Plants in Fight for Survival

For instance, most of our better field and garden crops if left alone would in a single season pass forever from the face of the earth. They would not be equal to the struggle for existence. Their en-

emies in the plant and animal kingdom would pounce down upon them and deal a death blow at one swing of the pendu- . lum of fate. But man brings them under his dominion and fights back the enemies of certain plants. In this way, he dictates to nature on what terms these plants may live. This he does in his own interest and for his own satisfaction. In the early development of agriculture, farm manures and all kinds of organic matter constituted the sole source of plant improvement. Then came the gypsum, lime and ground shell age, whereby these elements supplemented the farm manure program. Then Lawes and Gilbert and Von Liebig hit upon the dissolved bone and the superphosphate theory. It was also left to Von Liebig to explode the "humus theory" of soil fertility. Up to that time it was thought that the humus in the soil was used directly by the plant as food. His investigations showed that "as plants die down they necessarily enrich the soil with humus, but this humus as such forms no part of the food-supply." Up to the time of these discoveries there was a steady decline in yield and quality of farm and garden products. In recent years the soils program has included a revision of our studies on plant growth, including the mineral theory of plant feeding, and as a result production has been gradually increasing.

There can be no doubt but what any manufacturer can prepare mixtures with any percentage of organics, and good business demands that this be done if the ultimate consumer insists on it. But for reasons that I have tried to set forth in this paper, sound soil science demands that the entire trend of the business shall be in the direction of minerals. Most of the experiment stations have adapted their soils and fertilizer programs to the theory of mineral plant foods. They have adopted the general work of plant physiologists, setting forth the facts that plants take into their systems:

*Phosphorus, Nitrogen,* and *Sulphur* in the forms of phosphates, nitrates and sulphates of some basic element, usually calcium;

Potassium—as carbonates, phosphates, nitrates and sulphates;

Calcium—as bicarbonate, phosphate, nitrate and sulphate;

Carbon—in the form of carbon dioxide; Oxygen—in the form of water and free gas. 8 of the first 10 Pros who saw Kroydon's new irons with the Hy-Power Steel Shafts bought sets for their own use.

## THE HY-POW/ER STEEL SHAFT Kroydon's Remarkable Invention

A Cross section of hosel of the new "Muscle-Back" Kroydon Irons,

B Soft metal insulation fusing steel shaft and club head. Prevents hand abock.

C Hy-Power Steel Shaft. An exclusive Kroydon Patent.

A

C

B

h

Years ahead of any hickory or steel shaft ever before on the market. Aids control, adds distance and *stays right forever*. Leading Professionals now playing Kroydon steel shafted irons claim they're *the finest clubs ever manufactured*.

## Kroydon's Marvelous Machine

It draws steel tubing in one piece into the exact shape of a hickory shaft—thick where it joins the hosel and tapering upward until its narrowest diameter is well up the shaft where it should be.

In addition, these shafts are graded in whip and stiffness from driving iron to niblick just as hickory shafts were graded. That gives you, for the first time, a perfect individual shaft in everlasting spring steel for every different club in a Matched Set.

Other features of the 1931 Professional-by-Kroydon Line are the shock-absorbing joint, the "Muscle-Back" Blades and a brand new set of wood models.

See them, play them, sell them and PROFIT!

Matched Sets	Priced to Sell for
5, 6, 8, 9 or 10 Irons	\$41.75 - \$100
Driver, Brassie and Spoon	\$30 - \$75
idividual Clubs - Irons \$5-	-\$10, Woods \$5-\$25

The leading magazines in the United States are carrying Kroydon's 1931 advertising in page and column size to millions of readers. Be ready for *your* club members when they call for Kroydons—the finest Matched Clubs a golfer ever swung. And your profit is Right!



Tell us any idea for making GOLFDOM advertising more helpful.

## Set of Books No Stymie to Pro with Brains and Ambition

## By DAN GOSS

CAN YOU stretch your imagination enough to picture a normal, sane person, of average intelligence or better, starting out of his own volition under a blazing sun, a hundred in the shade and no shade, and really enjoy hitting a little round white ball?

That is, "enjoying it" when he is hitting the ball as he thinks he should. But when he's not, Dante's Inferno would be Coney Island compared to the tortures he suffers. All on his own volition. He can stop when he wishes—yet he'll carry on, hour after hour, mile after mile, keeping every nerve under absolute control, performing tasks of precision that rival the Johannason Blocks by judging distances up to 200 yards to within a FEW INCHES.

Stretch your imagination again and picture any human able to do the above several days a week every week, yet revolting and finding the silliest kind of excuses to keep putting off until tomorrow and tomorrow and tomorrow a task that can be performed in 15 minutes a day, in his own office or shop, under a whirring, oscillating electric fan and with a 5-gallon cooler of ice water at his elbow. And the 15 minute task means dollars and cents to him, means far more than ten times the same amount of time spent out under the sun playing or practicing.

It is obvious, as I pointed out in a previous article, that any pro, by his mental arithmetic tasks, has the ability to work with figures. It is equally obvious to me that the same pro who will spend hours practicing to get a fade out of his iron shots has the patience, ten times over what is needed, to devote a few minutes a day to the thermometer of his business—his books.

I don't know of two things that are more parallel in a pro's life than his books on his business and his game.

When he's hitting his shots he's in heaven. All's well with the world. But when he's smothering his tee shots, shanking his irons, pulling his putts off line and other things that send him home with the thought "If dinner is ready I won't eat—if it isn't I'll raise hell" (you know, just pure cussedness), you can talk all you want to about hell having no fury like a woman scorned; I'll still say that a sailor, just off a whaler, sounds like a minister of the gospel compared to this pro.

## Books Catch Errors

And the same with a set of books. Suppose you've posted the payment on your show cases to the firm that sold you that motor with the buffing wheel on one side and the grinder on the other-because the two happen to total the same for that month. Before long, nasty letters start coming in from the people that sold you the motor threatening to come out and get it, and all the while you are trying to convince them that you did pay that installment-AND YOUR BOOKS CAN PROVE IT! And then you find the error! You, too, use some of the words that can only be found in the newest Broadway plays.

Or, after you've balanced your books and find them a nickle out and then do it over and find them a dime out, and the third trial shows you both previous balances were wrong—a missed two-foot putt for that doubled bet on the back side is a mere nothing compared to your present feelings.

But whenever you want to find how much you owe the Off-Line Golf Ball Co. for balls for the previous month; or the Ever-Hook Brassie Mfg. Co. for their month's shipments and you turn a couple of pages and the figures jump right up, accurate to the penny compared with their statement—the books are O. K. And when you strike your monthly balance and find that everything is jake and even tho you lost \$1.80 instead of making at least a hundred over your drawing account, as you had thought—you still feel good.

And whether you believe it or not and you won't—its a hundred times easier to keep a set of books accurately than it is to shoot any course in anything like par

## The LATEST IMPROVEMENT in IRON CLUBS



MACGREGOR takes pride in presenting the new BAP Irons...hailed already as the sensation of 1931... "the finest steel shafted iron clubs that have ever been developed."

PAT APPLD FOR

Use the coupon to get YOUR copy of our catalog describing BAP Irons and all other MAC-GREGOR Golf equipment.

THE CRAWFORD, MCGREGOR & CANBY CO. Established 1829, Dayton, Ohio

THE patented, exclusive MACGREGOR "Neutralizer" and "Flexicor" supply that long-sought-for, heretofore unattainable goal-all the strength of steel with the "feel" and action of the best hickory.

The Neutralizer distributes the flexure of the shaft and neutralizes vibration. It also protects against breakage at the point recognized as the "danger line" by providing a yielding reinforcement between the non-flexible hosel and the flexible shaft. The Flexicor is fitted into the shaft, under the grip, supplementing the action of the Neutralizer.



THE	CRAWFO	RD, MACGREGOR	&
	CA	NBY CO.	

DAYTON, OHIO

Please send me a free copy of your catalog, "MACGREGOR Golf Goods, 1931."

Name	• •	•	*	•	÷		•	•										*	*	*				×					
Addres	s												*																
Cite																													

The advertisers pay for your GOLFDOM; deal with them.

-even tho you are playing winter rules by improving your lie.

I'll just cite one instance. Walk into any business college in your city, or any close-by city. You will find boys and girls there who only three months ago received their mail R. F. D., who were considered Sears & Roebuck customers and who with hundreds of others, on his or her same route, made the postman change his Lizzie to a one ton truck so he could haul all the catalogs. Some of them lived so far back in the country that anyone wearing a pair of knickers was followed for blocks. Six months from the time they enter this business college 90 per cent of these youngsters will be able to make a set of books lay down and yell "Uncle" or hop up and say "Mammy" like only Jolson can.

Do you know of any boy, six months off the farm, who has stepped out and shot any course in anything like par figures even tho he took "one over" on half the holes. Neither do I nor do I ever expect to see one in spite of all the prodigies that blossom forth yearly.

Isn't it obvious then that if you can do something that requires years of patience and effort that you can easily learn to do something that the average country boy can learn in six months? I think it is.

Personally—and mind you its my own belief—and I may not have a second to the motion in GOLFDOM—I believe the average pro refuses to give thought of any consequence to the accounting part of his business for the same reason that thousands of dubs believe a pro can't help them with lessons.

### Terms Easy to Learn

How many times have you heard a dub say, "Aw, what's the use of taking lessons? All he talks about is stiff left arm, pivot, throw the club head at the ball, don't stop —follow through, and a lot of other junk. He never tells me anything I can understand." Haven't you heard that, or words to that effect, more times than you would really have liked to have heard them?

The dub that gets the urge to take up the game feels like the average pro feels when he gets the urge to put in a real set of books. He may call in an accountant and when he hears such terms as BAL-ANCE SHEET, VOUCHER SYSTEM, TRADING STATEMENT, PHYSICAL IN-VENTORY, PROFIT AND LOSS AC-COUNT, DEPRECIATION, TURNOVER, he, too, may begin to get that "Aw, what's the use" feeling and not even start. And so like the dub's desire to take up the game—another good intention has gone to make pavement for hell. I've been told that hell is paved with good intentions. I wouldn't doubt it. That's a fitting place for them.

It is just as wrong for an accountant to start a pro off, who has the urge, with advanced terms as it is for a pro to start that way with a dub. Both should keep their language of the subject on a par with the listener's ability to understand. School children are taught multiplication first then algebra; never vice versa.

Many pros forget that dubs understand nothing about such terms as "stiff left arm" and "stay back of the ball" at the beginning even tho the instructions are interpolated with "Here let me show you what I mean" every now and then. Likewise, accountants forget that men who are considered successful and smart business men can't keep a set of single-entry books.

### No Use Hiring Others

A smart business man will give as his excuse that he neither has the time or the desire to learn because he can hire men to do it. But he'll also admit that even though he does, he still must find some way of knowing if the man he has hired to do the work is doing it properly. He can either learn himself so he can check up the man hired or hire someone else to check the first man—and someone else to check the second man, etc. But he's no better off until he actually learns for himself whether his work is being done right.

You can hire someone to keep books for you because you think you can't—or don't want to—which is better than not having it done at all. But if you do, you must still learn for yourself whether it is being done properly. So why not do it yourself in the first place which will take very little more time than is needed to check up on the man you employ.

And again, doing it yourself is more valuable in the same sense that knowing what makes a car run gives you more assurance in driving the car than if you just knew that stepping on the starter makes it go. Its the same as trying to improve your game by reading about it or having someone tell you what to do. Haven't you found that you could learn more in an hour of practice than you could by reading ten syndicated newspaper services? Wouldn't you rather watch Charles Hall hit tee shots for five minutes than have

# "These shafts actually add distance"

this golfer reports

"... I've been playing golf for 12 years with a best score of 88. One day I borrowed a set of clubs from a friend, and, to my amazement, scored an 84. Those clubs were shafted with Bristol Torsion Steel shafts. I didn't wait long before ordering a set for myself, and my game has been consistently better ever since. These shafts actually add distance."



More evidence for the golfer who wants only facts. Evidence from golfers who have actually played with Bristol Torsion Steel shafted clubs.

Everybody knows that Torsion adds life and whip to any club. Have you tried out a Bristol Torsion shafted club? Just as good on woods as on irons. Note the *feel*. Find out what it does for your game.

You can get Bristol Torsion shafted

clubs from McGregor, Spalding, Wilson-Western, Hillerich and Bradsby, Kroydon, Vulcan, Great Lakes, Butchart-Nicholls and others.

## Easy to get all the facts

A postcard from you brings you a free copy of The Bristolite our absorbing publication, packed with golf news and gossip and the complete story of Bristol Torsion Steel Shafts. The Horton Manufacturing Co., 183 Horton St., Bristol, Conn.

It is not a Bristol Torsion Steel shaft if you don't see this trademark and the open torsion seam that runs the length of the shaft. Its double steel walls give it greater strength.



Only reliable companies are allowed to advertise in GOLFDOM.

him try and tell you how he does for an hour?

Now as the revenue officer said as he started down the cellar of the bootlegger's home, "Let's get down to cases."

It's easy to criticize but constructive criticism is something else. It isn't my purpose to haul you over the coals just because I think I can get away with it. My purpose is to try to show you that if you'll just devote a little time to a function of your business that the majority neglect because of laziness, because they don't think it important, you'll find it the most interesting work you have ever done —and by far the most profitable of any you do.

In using several hundred words to lead up to this point, I did so with the same thought in mind that a mother uses to give a baby castor oil. She mixes it with orange juice to make it easier to take. I've led you along trying to make it easier to take not because it's so hard to take but because if I came right to the point I'd get as far as the mother would that would say to her small son, "Here, buddy boy, is ten cents. Go to the drug store and buy 10c worth of castor oil—AND TAKE IT."

You have this advantage. You can gauge the results of your effort before you begin taking what you would call "castor oil" or worse before you begin taking the doses. You can gauge your results not by horrible examples that I'll point out but by showing you IN YOUR OWN AFFAIRS how much better off you will be.

Now sit steady and let me finish because, like the round-about way of showing you in previous articles that cost marking and price tagging had a far greater significance than you imagined, I'll show you that certain things in your own business, that you do and have been doing, would mean a lot more to you—IF YOU KNEW HOW AND WHERE TO LOOK.

The first of the year you took your annual statement. What did it tell you? Here's what you could readily see: *Assets*: In this you had your cash in the bank, money owed you, inventory of your stock and a guess at your furniture and fixtures. *Liabilities*: How much you owed and maybe who owed it to you and when it was due.

NOW, HONESTLY, WHAT ELSE CAN YOU TELL AT A GLANCE FROM YOUR STATEMENT? It is supposed to be a history of the previous year's operation. Can you tell if you are giving too much credit? I gave credit for years and stopped for a reason far more important than because they wouldn't pay their accounts. Can you tell how many turnovers you had? Can you tell if your bank loans are too much?

In other words, outside of whether you made or lost money what else does your statement tell you?

Now grab a chair or something to brace you because you are in for a series of shocks.

Supposing a salesman walked in and said "Here's a keen line. Its going like a house afire all over the country. I'm going right over to your competitor and give it to him because it will take you four months to sell your first shipment."

After your first impulse to crown him and not queen of the May either—has died down and the impulse to throw him out on his ear has passed, if you'll listen you'll hear this: "We have obtained a copy of your statement for last year. We find that it takes you four months to sell whatever you buy—on an average throughout the year. That means you must have lots of merchandise that you keep for six and eight months because your ball sales are quick turnover and your other sales must be very poor to slow you down to a four month's average."

#### What Turnover Means

If you think he's a magician get out your statement. Divide your stock on hand into your total sales for the year, both cash and credit—or all cash if your accounts are guaranteed. Is it more than three to one or is it four, five or six to one. That is the answer to how many times you turned your stock for the year.

If your stock inventories \$3,000 and your sales for the year were \$9,000 you got three turnovers, one every four months. If your sales were twice as large as your stock you got two turnovers. Now do you call that good business? Keeping stock on hand from four to six months—when you can get it inside of two weeks at the most —and more often in three days from the time you wire.

If your statement shows you that you keep merchandise four to six months on an average, it means that if you'll speed up your turnovers by watching your purchases more carefully and pushing stock that isn't moving, you'll get more interest on your investment; you'll be able to carry a bigger and better assortment of merchandise—which obviously will increase your sales—ON YOUR SAME CAP-ITAL and in addition reduce your bank