

**THE  
MACARONI  
JOURNAL**

**Volume XXI  
Number 4**

**August 15, 1939**

# *The* Macaroni Journal



Braidwood, Illinois

August 15, 1939

Vol. XXI No. 4

## *Self Help!*

WHO of us doesn't need help in the successful management of our macaroni-noodle manufacturing and distribution business?

Very few of us are entirely self-sufficient—or rather, feel that we are.

The acquaintanceship which the National Macaroni Manufacturers Association has provided, and the coöperativeness which it encourages and inspires, are invaluable.

Like others, all will find membership in the National Macaroni Manufacturers Association a good investment.



"Thank You . . .

I NEVER DREAMED YOU COULD PACKAGE OUR COMPLETE LINE IN SO FEW DIFFERENT SIZES"



Manufacturers are usually pleased to learn how we can cut down their inventories of packaging materials. Less investment and storage space is required. Many years of specializing in solving the packaging problems of egg noodle and macaroni manufacturers has taught us not only the requirements of a successful sales package, but also how to package a full line in the fewest possible number of different sizes and styles of containers. Many of our country's largest firms and a lot of smaller but no less particular ones specify ROSSOTTI Cartons, Labels, and coöperation. You also will benefit from this superior, specialized service. Call in our nearest field man, or write us today, for complete information.



**ROSSOTTI LITHOGRAPHING COMPANY, INC.**

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BRANCH SALES OFFICES IN PRINCIPAL CITIES

**PACKAGING HEADQUARTERS FOR THE FOOD TRADE**

## Presidential Message

*A Declaration of Policy and an Appeal for Support of the Association's fine program of general promotion.*



To the Macaroni Products Manufacturers and the Allied Trades.

Greetings:

It is indeed regrettable that the office of a paid president could not be maintained. Many of the objectives in mind, at the time the paid president was employed, have been accomplished. It is the intention of your present directors and officers to hold all of the gains that have been made while restoring the membership and finances of the Association to their proper places.

Practically all of the past president's work will be continued by Mr. Donna and Dr. Jacobs. The methods to be used in securing enforcement of the Federal Trade Practice Act will be covered in a bulletin to be sent to Association Members exclusively. These matters will be handled in a more practical manner than heretofore, and with better results. Special reports of Dr. Jacobs will be sent to members exclusively in the future. These reports will cover research work, analyses, and up-to-date government regulations and interpretations.

The work of Mr. Donna in the matter of publicity needs no explanation. Everyone is agreed that it is among the most consistent and constructive work that has been done by this Association. The cost has been insignificant. When Mr. Donna requests a small donation from you for carrying on this work, do your part and it will come back to you many times over.

The durum wheat situation on the new crop looks none too good. Caution should be used this year in contracting Macaroni Products "Around the Clock" at the low prices that have been prevailing. In fact considerable stiffening of the price on Semolina Macaroni Products seems to be warranted.

Many manufacturers have not taken advantage of the opportunity for better cost accounting. The Association has available complete bookkeeping and cost accounting systems which will prove very valuable. The exact knowledge of costs which can be had by using this system will go far in preventing ruinous competition. Mr. Donna can supply these at reasonable prices.

The Association hopes to better conditions for all manufacturers but members will, of course, receive the most benefits. Several new manufacturers have joined and many more should and will become associated with us. All are welcome.

The new directors and officers are deeply appreciative of the honor the members of the Association have bestowed upon them. They also realize fully the obligations that go with this trust. It is their intention to maintain a "middle of the road," "feet on the ground" policy for the ensuing year. Suggestions are requested.

The macaroni business is a good business. It supplies good food at most reasonable prices. Its possibilities of expansion are enormous. Let us move forward in our businesses and in our Association in a conservative and business like manner—building on a good foundation of sound principles.

J. H. DIAMOND, President.



**QUALITY**  
IS  
**SUPREME**  
IN

★ ★ **TWO STAR** ★ ★  
**MINNEAPOLIS MILLING CO.**  
MINNEAPOLIS, MINN

# THE MACARONI JOURNAL

Volume XXI

AUGUST 15, 1939

Number 4

## Individual Plus Collective Action

The Macaroni Industry may have some problems that are peculiar to the business in which its operators are engaged, but, generally speaking, it differs only slightly from other food industries. It is made up of quite a number of large firms, or more medium size operators and altogether too many exceedingly small firms that reflect little credit on the industry as a whole.

Like practically every known food trade, it has a national association that is entitled to more support than it generally receives. Officially, the macaroni-spaghetti-noodle industry is composed of nearly 350 manufacturing units, many of them so small as to hardly merit the name of manufacturers. Eliminating the many very small firms and others that are interested only in selling their output to a neighboring trade, there are left not more than 150 manufacturers who do a state-wide or interstate business.

It is from this group of 150 that the National Macaroni Manufacturers Association must obtain its membership and support. Of this number about 30 firms are classified as large in capital structure and production—converting over one hundred barrels of raw material daily into finished products of a quality to which the industry points with pride. Perhaps eighty others have capacities ranging from twenty to one hundred barrels daily and dispose of their output either direct to retailers or through jobbers. The remaining 40 firms have fine, up-to-date small plants and make use of every known form of distribution.

It is interesting to study the relation of the several groups to the national organization. All of them have asked themselves many times, "What is the value of a national trade association to me, individually, and to the trade, generally? What benefits can it offer me that non-members will not receive?" Many of the large firms and a goodly number of the medium size firms have answered the questions for themselves. They are satisfied that there is need for a national organization to represent the Macaroni Industry and are willing to make sacrifices to maintain one. In addition to the few that are content to give lip service, they give the Association considerable of the time of their executives in addition to moral and financial support.

Aside from the national benefits that an industry derives from its national trade association, individuals are helped to solve their problems. Tangible evidence of this is not always easily discerned, but so many are satisfied that this is true that they have continued their support year in and year out.

In the industrial world of which the Macaroni Industry is an important part, there are problems and situations today that can best be met and solved collectively instead of individually. In trade associations all the progressive members pool their energies, their efforts and their intel-

ligence to accomplish things that are too large for individuals. A trade association does not do away with individual effort. It merely directs the manner in which this effort or power can be applied for the good of the individual and of the trade generally.

President Franklin D. Roosevelt, in a recent address, made some remarks on the trend in business that are interesting and prove the need for greater watchfulness of individual and trade interests. He said, in part:

"The unfeeling statistics of the past three decades show that the individual business man is running a losing race. Perhaps he is forced to the wall; perhaps he cannot command credit; perhaps he is squeezed out by highly organized corporate competitors, as your corner grocery man can tell you.

"Recently a careful study was made of the concentration of business in the United States. It showed that our economic life is dominated by some six hundred and odd corporations, who control two-thirds of American industry. Ten million small business men divided the other third.

"More striking still, it appeared that if the process of concentration goes on at the same rate, at the end of another century we shall have all American industry controlled by a dozen corporations and run by perhaps a hundred men.

"I believe in individualism, but I mean everything that the word implies. I believe that our industrial and economic system is made for individual men and women, and not individual men and women for the benefit of the system. I believe that the individual should have full liberty of action to make the most of himself, but I do not believe that in the name of that sacred word a few powerful interests should be permitted to make industrial cannon fodder of the lives of half of the population of the United States."

Former Association President James T. Williams once said that so far as he could learn no other food trade was composed of so many individually-owned plants or firms as is the case in the macaroni-noodle trade; that in no other line of business were so many proprietors truly proud of their own business and anxious to so conduct it as to pass on to their heirs an inheritance of which both donor and recipient could be proud.

The National Macaroni Manufacturers Association encourages this individualism. It welcomes the support of these individuals in the work of preserving the trade, of promoting the business and of making its products more deservedly popular. That is why the door to association membership is always left conveniently open to those who do not now but should and eventually will belong. A more united macaroni industry is a safe guarantee of the continuance of the individual ownership of plants which is so remarkable in this industry.

# DURUM WHEAT AND MACARONI PRODUCTS

## The Importance of Durum Wheat in American Agriculture and Industry

### Part I. Durum Wheat — Its Development, Properties, and Use

R. H. Harris, Cereal Technologist

North Dakota Agricultural Experiment Station, Fargo, N. Dak.

Durum differs from the bread wheats in being a member of a class known to the botanist as *Triticum durum*, whereas the majority of other wheats commercially grown are varieties of *Triticum vulgare*. Other species are *Triticum compactum* or the club wheats; *Triticum spelta*, the emmer wheats; *Triticum dicoccum* or rivet wheat; and *Triticum polonicum* or Polish wheat.

Durum wheat is harder and more flinty than bread wheat, and tends to be higher in gluten or protein content. It is also more highly pigmented and the durum varieties which are considered most suitable for the manufacture of superior macaroni products possess a deep amber color, and are translucent when grown under proper conditions of climate and soil. The name "durum" is derived from the Latin word "hard" and renders the term durum more appropriate than hard wheat since in many grain markets this adjective is applied to those varieties of bread wheats which are vitreous and hard in texture in order to distinguish them from durum and the "softer" more mealy bread and pastry flour wheats. In addition, this word carries its own special meaning to those familiar with Latin. In certain regions of the United States and Canada the term "rice," and "goose wheat" is used for durum.

#### Geographic Distribution

Durum wheat was obtained from Northwestern Africa by the botanist Desfontaines. There is no available evidence pointing to prehistoric cultivation of this class of wheat, although a number of wheat grains found in the Graeco-Roman cemetery at Hawara resemble some forms of durum grown at the present time, and the naked wheat of ancient Egypt, termed "Coyo," was durum according to a statement made by Orlov and cited by Alsberg, also 72 of the 74 race characters of durum, have been



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Dr. Harris received his early scientific training at the University of Saskatchewan, receiving the degrees of B.Sc. and M.Sc. in chemistry. He then accepted a position as chemist at the Saskatoon, Saskatchewan plant of the Quaker Oats Company. The next move was to Saint Paul, where he studied and investigated the biochemical properties of dough under the direction of Dr. C. H. Bailey. This was followed by a return to the position with the Quaker Oats Company where he remained until September, 1934, when graduate study for the Ph.D. degree was entered upon at the University of Minnesota. This degree was awarded in December, 1936. Since that time Dr. Harris has been in charge of the milling, baking and cereal research at North Dakota Experiment Station.

found in Algeria, Egypt, and Abyssinia, 55 in Europe and 51 in Asia. The further one progresses from the center of variability, the fewer the number of race characters met with, and the smaller is the range of variability of the types found. This evidence points rather clearly to the general geographic districts of Northern

Africa as the birth place of durum wheat. Alsberg writes: "At the present time some forms of durum wheat are met with in all parts of the world . . . the whole of North and South (Cape Colony) Africa, the Southern peninsulas of Western Europe, the South and East of European Russia, the Southern parts of the provinces of West Siberia, Turkestan, Persia, India, Beludjistan, Mesopotamia, Asia Minor, Syria, Palestine; in America the Western part of the Great Plain of the United States, the Southwestern part of the provinces of Canada, the plains of Mexico, Brazil, Argentina, Chile and the Southeastern part of the mainland of Australia." He further states: "In some of these regions durum wheat is an important crop; in others, it occurs but rarely. In East Siberia, China, Tibet and Hindustan, as well as in Japan, it is 'almost absent.' In Europe and Asia no variety has been found as yet which has not been recorded for the African district. South Africa (Cape Colony) has 9 varieties, Asia but 20 out of 34 forms, and European and Asiatic Russia, 19 varieties."

Durum may be grown either as a winter or spring wheat according to climatic conditions. Alsberg points out that in regions where winter wheats grow best, but spring sown wheats will grow in the event of great damage to the winter wheat crop in the autumn or winter months, the loss in some measure may be offset by sowing spring wheats. Regions of Eastern Washington and Oregon are such localities, but there the common spring wheats usually outyield the durum.

Durum was introduced into the United States during the latter part of the 19th century. In 1899, M. A. Carleton, Cerealist of the United States Department of Agriculture, made a special trip to Russia for the purpose of securing the best durum wheat. Following its introduction, the

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annual production of this grade of wheat rose to 6,000,000 bushels in 1903. The principal area of growth of this wheat in the United States at the present time is in the North central region of North Dakota, and smaller quantities are raised in portions of South Dakota, Western Montana, and Minnesota. This wheat is resistant to certain races of stem rust which attack bread wheats, and does not require as high a rainfall as the latter class of wheat. The principal other durum producing areas of the world are situated in Western Canada, Russia, and Northern Africa. The center of production is gradually moving northward, indicating that rust resistance is of greater moment than drought resistance. The best durum is apparently produced under semiarid conditions. Alsberg finds an inverse relationship existing between precipitation and quality as expressed in hardness and gluten content of the kernel. Thus, "In India the hardest wheat grows in the south, in Russia toward the southeast, in North America to the northwest." Alsberg further states: "One of the principal advantages of growing durum in any semiarid climate is the reduction of the risk, even if, on an average over a period of years, the yield is less than for common wheat. This is of an especial importance for the subsistence of the peasant farmer who faces famine when he is subjected to a crop failure in two successive years."

#### Characteristics

The difference in rust resistance between durum and hard red spring wheat varieties is becoming narrower from year to year, due to the introduction of new high quality rust resistant spring wheats through the combined efforts of the plant breeder and the cereal chemist. It has been commonly found that a rust infection may exist on the sheaths and leaves of the durum wheat while the peduncle or neck remains unattacked. This condition will permit a fairly satisfactory plump kernel to develop under an infection which causes great damage to certain varieties of common bread wheats. Durum wheat is, however, subject to a disease commonly known as "blackpoint" which does not attack common bread wheat to any great degree. "Blackpoint" or "smudge" is a name given to a black or brownish discoloration of the seed coat. The extent of this discoloration, in some instances, is confined solely to the germ and varies from a very slight infection at the top to a large brownish color over the entire germ portion of the kernel. The discoloration is usually caused by a fungus *Helminthosporium* associated with other fungi. The development of this organism is favored by the presence

of moisture at the germ end of the kernel when the wheat is allowed to stand through unfavorable weather conditions. Much of the Canadian crop in some years contains kernels damaged in this way. The durum milling companies are averse to handling durum infected by this disease as it appears to be difficult to

from practically every state west of the Mississippi showed the following variations: Moisture—8 to 12%; ash 1.30—2.35%; fat 1.10—2.40%; fiber 1.70 — 2.85%; pentosans 5.80 — 8.20%; protein 10.1—17.7%; cane sugar 1.60—3.90%; weight per 1,000 kernels—23.3—55.1 grams. Alsberg pointed out that as durum



Wheat Heads

effect a complete separation. The semolina produced from it tends to contain black specks which result in the semolina being heavily discounted by the macaroni manufacturer. It is probable that some "blackpoint" durum may be used without injury to semolina color provided great care is used in the amount allowed in the mix and the degree of infection is not too great.

The quality of durum wheat varieties varies greatly, as quality for the macaroni manufacturer depends both on vitreousness and color. In regard to the latter property, the wheats with the highest proportion of yellow kernels are preferred. Color apparently is largely tied up with hereditary effects, but locality of growth does undoubtedly have an effect upon this property. In North Dakota the best durum and macaroni is produced in seasons of normal temperature and precipitation while in hot dry seasons, as in 1936, the color is usually inferior for macaroni manufacture. Alsberg summarizes the ranking of various durum varieties over a period of years as follows: Mindum, Kubanka-75, Akrona, Kubanka-132, Kubanka, N.D.R-216, Nodak, Golden Ball, and Monad.

#### Chemical and Physical Properties

Unpublished results of the Bureau of Chemistry obtained from analyzing hundreds of samples of durum wheat

wheat tends to run higher in protein content, semolina and macaroni products tend to possess relatively high protein content, and since in most countries protein is an expensive element of the diet, durum products may be of considerable significance in the cost of national dietaries. Because of the high pigment content of durum, flour milled from this wheat is not regarded with favor for bread making purposes due to popular demand for dead white bread. It may be that durum products are of somewhat greater food value than bread wheat products owing to their high protein and pigment content. Further investigations are needed, however, to definitely answer this question. The differences in physical behavior between durum and common wheat glens probably result from variations in the colloidal properties of the two glens. It would also appear likely that starch prepared from the two classes of wheat differ because of physical properties. The swelling capacity of gelatinized durum starch appears to be greater than that of hard red spring wheat starch (Alsberg). It consistently yields more viscous paste. Further investigations along this line are needed, taking into account the size distribution of the granules. Rask and Alsberg have studied durum and hard winter wheat starches and point out that both these types of wheat are more suitable for

macaroni production than is hard red spring wheat. Mangels and Bailey have also presented evidence to the same effect when studying the action of chemically gelatinizing agents upon starches prepared from different types of wheat.

more perfectly removed from hard wheat flour with a resultant whiter flour. Although durum is not regarded principally as a high quality wheat for bread making, it is used to some extent for this purpose in England and the continent where millers

advance samples from durum areas and determine the districts of superior color.

#### Semolina and Farina

Dr. J. A. LeClerc of the Food Research Division, U. S. Department of Agriculture in his booklet on "Macaroni Products" (1933) defines semolina as "the coarsely ground and carefully purified milling product or middlings of durum wheat. It consists of grits of different sizes; in fact, the term 'semolina' is the Italian name for grits or middlings. If the grits should be ground finer, the result would be flour. Farina is the name of a similar product milled from hard common wheat and is coarser than semolina, grade for grade."

These products are defined as follows by the National Macaroni Manufacturers' Association:

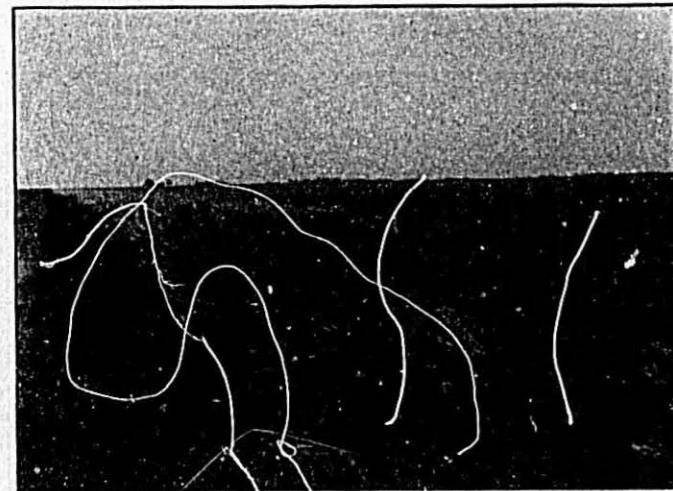
*Semolina* is the purified middlings obtained from the grinding of durum wheat. It is free from bran and other offal and shall contain not more than 13.5% moisture and not more than 1% of flour.

*Farina* is the purified middlings obtained from the grinding of hard wheats other than durum wheats. It is free from bran and other offal and shall contain not more than 13.5% moisture and not more than 1% of flour.

Semolina was probably first made in the household with the use of hand stones or pounding devices. It is made at the present time in central and Southern India and a few localities in Northern India in buhr stone mills. These hard stone mills are known as *chakkis*. Alsberg describes the process of milling as consisting first of soaking the wheat for a period of 6 to 12 hours to facilitate the removal of the branny coat of the kernel. It is then partially dried and ground. The product is sieved through fine muslin or rubbed on thin cloth tied over the end of a basket. A separation of granules according to size is thus effected, and the smaller particles are further separated into semolina (*suji*) by winnowing. Large power driven *chakkis* do not appear to be used for semolina production, probably owing to the superior quality of semolina produced in the modern roller mills.

Protein quantity is not considered to be as important in the manufacture of semolina as it is in the instance of bread flour production. If the protein content is above 12.0% there is usually no complaint. Too high a protein content may possibly be detrimental to the quality of macaroni processed from such wheat. "Strength" is quite important in macaroni, spaghetti, vermicelli or other "long goods" in

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A Wheat Field

#### Commercial Milling of Durum Wheat

One of the first uses of seeds by primitive man was by boiling seeds which had been reduced by pounding and grinding between stones. Pots of clay and other fire proof vessels were used by the cave man while the California Indians used tightly woven baskets. The cooking was accomplished by dropping hot stones into the water and food material contained therein. Porridge was a major cereal dish until recent times. According to Dr. Alsberg, the introduction of the art of grinding greatly simplified the preparation of cereal foods, and led directly to the baking of various kinds of flat breads and cakes from a mixture of meal and water. The texture of the baked cake now became an important matter and caused wheat and rye to gain an advantage over the other cereal grains. Owing to the presence of gluten, wheat meal forms a dough when mixed with water in the proper proportions with a consequent formation of a more or less porous cake.

The comparative difficulty of grinding hard vitreous wheat varieties in primitive mills or even between the modern buhr stones caused the softer wheats to be favored. Hard common wheats were heavily discounted and durums were scarcely salable on the world markets. With the introduction of the roller mill following 1870, the hard wheats began to command a preference over the soft wheats, because now the bran and germ could be

are accustomed to dealing with difficult and hard wheats. Milling is done at higher moisture contents than in America and the miller is enabled to get the durums into a more favorable milling condition owing to differences in moisture content and tempering period. The English trade regards durum wheat as a substitute for weak or filler wheats such as Danubian or English, in spite of exceedingly high gluten content. Durum wheat is the most suitable material for the manufacture of macaroni products. The heavier, stiffer dough is preferred in macaroni making. Less water is required in the dough, and this is an advantage since the water has later to be removed by drying. The reverse situation exists in bread baking where the baker prefers a high absorption flour which will increase his yield of loaves per barrel of flour.

The yield of semolina obtained from durum wheat is highly correlated with test weight per bushel, and it is usually found that the yield of semolina decreases more rapidly than flour yield as test weight decreases. The selection of durum wheat for commercial semolina production is based largely upon color. The deeper the color of the endosperm, the more desirable the wheat. The carotene content is not known to be related to vitreousness or protein content. In certain years, high premiums have been paid for color, and as the same area may vary widely in different years, it is common practice for semolina millers to obtain

# Is it Good?

## The most VITAL question your products have to answer

The most exacting checks in your laboratory are really quite moderate compared to the test your products undergo at a customer's table! There, only one all-important question is asked—only one answer expected. The customer asks: "Is it good?" Your products *must* answer "Yes."

For years we have been testing and choosing wheats, milling, testing and re-testing Gold Medal Press-tested Semolina No. 1 to insure the presence, in largest measure, of those qualities which help you make macaroni products highly satisfactory to your customers. General Mills' Gold Medal Press-tested Semolina No. 1 is noted for those characteristics which spell *fine* results to the manufacturer. It is noted for *all 'round ability* to produce products

with fine taste, appetizing appearance and FULL COLOR AND FLAVOR the things that mean everything to the housewife.

These are reasons why Gold Medal Press-tested Semolina No. 1 gives you not only the kind of results you must have in your plant—but, most important, the *re-buying* action you want from your customers.

Use Gold Medal Press-tested Semolina No. 1 with full confidence. Many daily tests guarantee that this Semolina will assist you to make the kind of macaroni products your customer insists upon. To the question, "Is it good?", Gold Medal Press-tested Semolina No. 1 milled by General Mills, Inc., speaks for itself.



A COMPLETE DURUM SERVICE FOR MACARONI AND NOODLE MANUFACTURERS

DURUM DEPARTMENT

**WASHBURN CROSBY COMPANY**

(TRADE NAME)

Central Division of General Mills, Inc.

Offices: Chicago, Illinois

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order to prevent stretching or breaking during the cooking or drying and breakage in the package during shipping of the dried product. The bran of durum is said to be very difficult to separate from the endosperm even though the tempering period is lengthened. Commercial semolina manufacture differs in some important respects from bread flour milling. In a durum mill, corrugated "U" cut rolls are used to secure a shearing rather than a pulverizing effect and to produce a minimum yield of flour with a maximum yield of semolina—sharp granular material. In flour mills, smooth rolls are used in addition to corrugated rolls to reduce or pulverize the middlings to flour consistency. The purifying system of a durum mill is more extensive than that of a flour mill, due to greater difficulty in securing a clean separation of the endosperm from branny material. Semolina granulation has an important effect upon color and must therefore be carefully controlled by the miller. The finer the granulation, the poorer the color, due principally to more severe treatment in milling. The requirements of the macaroni manufacturer regarding granulation are not by any means uniform and accordingly the granulation must be varied to meet the changing desires of the purchaser.

Note—The article by Dr. Carl Alsberg "Durum Wheats and Their Utilization" contains a very comprehensive summary of literature relating to durum wheats and semolina.

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## Postpone Labeling Provisions

Congress Amends Food and Drug Act to Delay Effective Date of Some of Its Provisions . . . President Roosevelt Signs Bill

On the eve of the effective date of many provisions of the food section of the new Food and Drug Act, Congress passed the Lea Bill (H.R. 5762) giving food manufacturers further time to prepare their food labels to comply with the provisions of the new law. It was signed by President Roosevelt on June 23, 1939, two days before the effective date of the measure adopted last year.

This action by Congress postpones the effective date of some of the labeling provisions until January 1, 1940. It gives users of labels a six-months respite on all provisions except the one prohibiting false or misleading labeling and the one requiring a statement of the quality on the label. It also provides for the postponement of the effective date of the provision requiring certification of the use of certified coal tar colors in foods where they are permitted. (Artificial coloring of macaroni, spaghetti and egg noodle products is strictly prohibited.)

The bill further provides for the postponement up to July 1, 1940 in meritorious cases but only under administration regulations. They will be granted after a full review and

complete study of all requests, and then only in the public interest.

## Original Provision Effective

With the extensions referred to, many of the main provisions of the new Food and Drug Act became effective June 25, 1939, as originally scheduled. Among the more important are:

- The one prohibiting adulteration of any kind;
- The one prohibiting false and misleading labeling;
- The one making it illegal to offer food for sale under the name of another food;
- The one which provides that "an imitation of another food" must be labeled "imitation" in type of uniform size and prominence of the name of the food and immediately after the name of the food imitated.
- The one requiring a statement on package of the quantity of the contents in terms of weight, measure, or numerical count.
- The one providing the penalties for violations.

## Line Drawn on Flour Products

Is plain macaroni, spaghetti or vermicelli a manufactured food or is it merely a different form of a raw material?

The answer to this question may have an important bearing on the future sales of this 100 per cent wheat food in the light of a recent decision by the Federal Surplus Commodities Corporation. The ruling is on products made from wheat and graham flours.

It is permitted to exchange wheat and graham flours for the blue stamps in cities where the stamp plan is effective. Any grade of flour may be purchased by the relief clients with their blue stamps, but Philip F. Maguire, executive vice-president of the Surplus Commodities Corporation, has ruled that products made from such flours, such as pancake flours or cereal mixtures, may not be purchased under the plan now being tested in several cities.

The ruling is explained by the claim that the latter are manufactured prod-

ucts and are thus outside the class of "surplus commodities" as defined by the corporation executives.

Since plain macaroni products are neither baked, cooked, roasted nor toasted, should they come under this ban? An official ruling has been requested by the National Macaroni Manufacturers Association in the name of its supporting members. Members only will be officially advised of the administration's attitude on this very important question.

## General Mills Plans Food Plant

General Mills, Inc. is planning to build a new breakfast food plant in Buffalo, New York, according to an announcement made by Donald Davis, president of the concern. Approximately \$2,000,000 will be spent in constructing and equipping the new plant adjacent to the Washburn Crosby flour mill. It is expected to have it ready early in 1940. The new mill will manufacture breakfast food, cakes and cake flour.

WHO SELLS IT

## BUYER'S GUIDE

WHERE TO BUY IT



Amber Milling Co.  
Flour and Semolina  
Barozzi Drying Machine Co.  
Macaroni Noodle Dryers  
Breuer Electric Co.  
Industrial Vacuum Cleaners  
Buhler Brothers  
Presses  
Capital Flour Mills, Inc.  
Flour and Semolina  
John J. Cavagnaro  
Brakes, Cutters, Dies, Die Cleaners,  
Folders, Knaders, Mixers, Presses  
and Pumps



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## Durum Wheat Supplies Largest In Several Years Despite Short Crop

Supplies of durum wheat in the United States for the 1939-40 season, from present indications, will be the largest in several years despite prospects of a below average crop, states the Agricultural Marketing Service in a Special Summary of the Durum Wheat situation. Stocks of old wheat carried over were unusually large and the increase in stocks more than offset the decrease in the crop. Disappearance of durum wheat from the 1938 crop was the largest in recent years as a result of increased millings and fairly large exports. Prices fluctuated over a relatively wide range during the season and reached the lowest level since 1933. Cheapness of durum wheat was reflected in lower prices and increased utilization of durum products.

Stocks of durum wheat in the United States at the close of the 1938-39 season, June 30, totaled approximately 17,710,000 bushels, the largest carry-over since statistics became available 5 years ago. Should the July 1 estimate of 30,890,000 bushels for the 1939 crop be realized, the durum wheat supply for the 1939-40 season would total 48,600,000 bushels, or about 20,000,000 bushels more than were utilized in 1938-39.

A total utilization of approximately 28,000,000 bushels is indicated for the 1938-39 season compared with about 26,000,000 bushels during 1937-38. Mill grindings accounted for 14,821,000 bushels, of which 7,590,000 bushels were milled during the 6 months, July through December, and 7,231,000 bushels, January through June. Millings during 1937-38 were 13,630,000 bushels.

Exports as shown by inspections totaled 1,765,000 bushels during 1938-39 and were about equally divided between the two 6 months periods. Exports were negligible during the 1937-38 season. Seed requirements for the 1939 seedings were placed at 4,944,000 bushels, which would leave about 6,430,000 bushels for feed or waste against 5,825,000 bushels for seed and 6,780,000 bushels for feed or waste during the previous season. Shipments of United States durum from Duluth during the season totaled 5,827,992 bushels. Deducting exports and re-shipments to other western markets, would indicate a commercial utilization at other lake ports or eastern markets of around 4,500,000 bushels.

Little or no durum wheat apparently was imported during 1938-39, although official statistics of wheat imports do not segregate the wheat

by classes. Shipments of Canadian durum to the United States as compiled by the Canadian Bureau of Statistics exceeded overseas shipments of Canadian wheat from United States ports by about 1,750,000 bushels during the 12 months, July, 1938, through June, 1939. This difference, however, was fully accounted for by an increase in stocks of Canadian durum in bond in the United States during that period.

### Disappearance of Canadian Durum Above Last Season

The disappearance of Canadian supplies of durum wheat during the 1938-39 season was apparently well above those of the previous year since supplies at the beginning of the season were larger and stocks at the close were much smaller than a year earlier. Stocks of old durum wheat in Canada at the first of July, 1938, were reported at 9,902,000 bushels, and, together with a crop estimated at 22,000,000 bushels, gave a total supply of 31,902,000 bushels. At the close of June, 1939, stocks in all positions were reported at only 6,622,000 bushels, which would indicate a disappearance of approximately 25,300,000 bushels. Overseas shipments from Canadian ports were reported at 12,793,000 bushels and in addition stocks of Canadian durum in bond in the United States were increased 2,500,000 bushels, leaving nearly 10,000,000 bushels for domestic utilization.

The quality of the 1938 durum crop in both the United States and Canada was unusually good. As reported in an earlier review, the quality of the United States durum was excellent and quite satisfactory from a milling standpoint. Test weight was high and color was good. Practically all of the terminal market receipts aside from that going into Red and Mixed durum classes graded Hard Amber. Because of the satisfactory test weight, a large part of the inspections graded No. 1 and No. 2. Nearly 75% of the Canadian durum inspections during the 11 months ended June, 1939, graded No. 2 or better compared with slightly less than 61% during the corresponding months of the previous season.

### World Supplies of Durum Wheat Show Increase for 1939-40 Season

World supplies of durum wheat appear to be materially larger than last season. Stocks of old crop durum in Canada, July 1, were somewhat under those of a year ago but

conditions of all wheat in the Prairie Provinces at the close of July indicated a larger durum harvest than last season despite a reported intention by growers to reduce durum acreage both in Manitoba and Saskatchewan. The acreage of all kinds of wheat seeded in the Prairie Provinces exceeded the reported intentions by about 480,000 acres.

The North African crop of durum wheat is about average and generally of good quality. The Moroccan crop of hard wheat, which is mostly durum, is estimated at 24,802,000 bushels against 13,428,000 bushels in 1938. The Algerian crop is placed at 31,048,000 bushels and the Tunisian crop at 11,390,000 bushels compared with 23,063,000 and 7,349,000 bushels, respectively, last season. No estimates are available for the Italian and Spanish durum crops but production of all classes of wheat in these countries is unofficially reported about up to that of 1938.

Prices of durum wheat in United States markets during the 1938-39 season reached the lowest level since 1933 and fluctuated over a rather wide range. The weighted average price of No. 2 Amber durum at Minneapolis during the first week in July, 1938, was 83.4c per bushel. Prices tended steadily downward during July and averaged 72.1c during the first week in August. A further decline occurred in September and October and the lowest point of the season was reached during the first week of November when the average price was 62.7c per bushel. In December prices advanced to an average of about 71 1/2c and held around this level until April when a moderate advance took place and extended through May. At the first of June the average price had reached 82c but the market weakened as prospects for the new crop remained favorable and at the close of the month the weighted average price of No. 2 Amber durum had declined to 72.7c per bushel, or slightly more than 10c below the corresponding price a year earlier. A further decline occurred during the first 3 weeks in July.

Canadian prices reached even lower levels than United States prices. Starting at approximately 68c per bushel at the first of July, No. 2 Amber durum, basis Fort William and Port Arthur, declined to 42c at the close of the first week in October. Prices fluctuated between 43c and 46c per bushel during the period November through March and advanced slightly, reaching approximately 56c per bushel at the close of May. Some decline occurred, however, during June and early in July and on July 15 No. 2 Amber was quoted, basis Fort William and Port Arthur, at 44 3/4c per bushel.

## DURUM WHEAT: SUPPLY AND DISTRIBUTION, UNITED STATES

Items of supply and distribution	1935-36 1,000 Bushels	1936-37 1,000 Bushels	1937-38 1,000 Bushels	1938-39 1,000 Bushels	1939-40 1,000 Bushels
Supply:					
Stocks, July 1:					
Farm .....	945	3,086	863	2,352	7,614
Interior Mill and Elevator .....	722	966	460	1,284	2,840
Commercial .....	1,560	1,577	376	428	3,998
Merchant Mills .....	1,900	1,160	1,740	1,161	3,258
Total .....	5,127	6,789	3,439	5,225	17,710
Crop .....	24,759	8,836	27,971	40,445	30,890
Total domestic supply .....	29,886	15,625	31,410	45,670	48,600
Imports, July-December .....	864	* 8,178	* 50		
Total supply, July-December .....	30,750	23,803	31,460	45,670	
Distribution, July-December:					
Mill grindings .....	8,080	7,179	6,748	7,590	
Feed and other use .....	2,668	4,597	3,238	3,065	
Exports .....				878	
Total .....	10,748	11,776	9,986	11,533	
Stocks December 31:					
Farm .....	11,250	5,827	10,949	19,271	
Interior Mill and Elevator .....	3,530	1,720	3,668	5,915	
Commercial .....	1,830	922	3,556	3,885	
Merchant Mills .....	3,392	3,552	3,301	5,066	
Total .....	20,002	12,027	21,474	34,137	
Imports, January-June .....	* 2,946	* 1,115			
Total supply January-June .....	22,948	13,142	21,474	34,137	
Distribution, January-June:					
Mill grindings .....	7,643	4,873	6,882	7,231	
Seed requirements .....	5,202	4,702	5,825	4,944	
Feed and other use .....	3,314	128	3,542	3,365	
Exports .....				887	
Total .....	16,159	9,703	16,249	16,427	
Stocks, June 30 .....	6,789	3,439	5,225	17,710	

Compiled or computed by the Agricultural Marketing Service from official or trade data

\*Estimated from official or trade data.

## DURUM WHEAT PRODUCTS: U. S. PRODUCTION AND DISTRIBUTION

Av. 1931-32	Durum Wheat Ground BUSHELS	Production*		Exports Macaroni, etc. POUNDS
		Semolina BARRELS	Flour BARRELS	
1935-36				
July-December .....	6,916,568	1,159,716	284,785	1,223,713
Jan.-June .....	6,566,430	1,089,188	307,461	1,187,546
Total .....	13,482,998	2,248,904	592,246	2,411,259
1934-35				
July-December .....	6,468,443	1,069,131	290,899	938,548
January-June .....	5,779,986	986,318	267,008	1,043,522
Total .....	12,248,429	2,055,449	557,907	1,982,070
1935-36				
July-December .....	8,079,600	1,277,468	354,860	943,239
January-June .....	7,642,642	1,181,320	343,401	1,042,154
Total .....	15,722,242	2,458,788	698,261	1,985,393
1936-37				
July-December .....	7,178,821	1,126,855	354,027	903,688
January-June .....	4,872,839	843,685	186,344	1,515,939
Total .....	12,051,660	1,970,540	540,371	2,419,627
1937-38				
July-December .....	6,747,909	1,070,141	354,309	1,532,537
January-June .....	6,881,882	1,141,055	296,777	1,345,699
Total .....	13,629,791	2,211,196	651,086	2,878,236
1938-39				
July-December .....	7,590,460	1,245,377	414,520	1,783,847
January-June .....	7,231,375	1,256,964	336,818	1,494,226
Total .....	14,821,835	2,502,341	751,338	3,278,073

Source: Data prior to July 1, 1933, U. S. Bureau of Foreign and Domestic Commerce. Subsequent data, Agricultural Marketing Service.

\*Total production included under semolina when production of semolina and flour is not reported separately.

## New Plant in Detroit

The Michigan Macaroni Manufacturing Company, Detroit, Michigan, expects to open its modern plant at 3265 Bellevue Avenue, about the middle of August. The new plant is



ideally located with a railroad siding owned by the firm to facilitate shipment of the plant's output.

The building, which will house "the largest and most modern macaroni factory in Michigan," according to its new owners, is practically new, modern and up-to-date in every respect. It has over 35,000 square feet of floor space. It is of steel and concrete construction. In the production room are being installed the latest in the way of mixing and kneading machinery, hydraulic presses and automatic controls. The drying rooms are the most modern, while the packaging room is equipped with machinery for both bulk shipments and packaging. Victor Cavataio is president of the new corporation and Dominic Cavataio is vice president. "When completed," says President Cavataio, "this will be the largest macaroni concern in Michigan, having a daily capacity of 200 barrels. We will manufacture a complete line of macaroni and egg noodle products."

The Michigan Macaroni Company was founded in 1920 by the late Peter Cavataio, and owned by him until his death in April, 1938. For the past few years it has been managed by Victor Cavataio. On the death of the founder and owner, Victor and Dominic Cavataio decided to incorporate the business and to move to larger quarters to maintain and satisfy their rapidly increasing sales.

The old plant at 2235 Mullett Street, E., will continue operation under new management and a new name.



## Report of the Director of Research For July

Dr. Benjamin R. Jacobs

Since the close of our recent convention in New York and the discontinuance of the New York office of the Association I have received many inquiries from macaroni manufacturers concerning the labeling requirements of the new Federal Food, Drugs and Cosmetic Act.

As has already been announced the effective date of the labeling provisions has been extended to January 1, 1940 and therefore manufacturers of macaroni products need not comply with this until that date.

However, it is my suggestion that all manufacturers having new labels prepared should at the earliest possible date arrange these labels so that they comply when the time comes. Many manufacturers have already done this and since the requirements are simple there is no hardship on anyone.

All manufacturers of macaroni products who are members in good standing of the Association, can obtain the desired information concerning the labeling requirements from this office by addressing me at No. 2 Grace Court, Brooklyn, N. Y. Non-members of the Association shall be expected to pay a nominal fee for this information if it is solicited from this office.

Although the prescribed labeling is simple there are certain requirements with which each manufacturer, packer or distributor must comply in order to avoid unnecessary expense and further complications with the Food Authorities.

I am just in receipt of a letter from

the Chairman of the Food Standards Committee of the Food and Drugs Administration. This letter refers to a preliminary survey which the Committee is undertaking for the purpose of establishing standards for macaroni and noodle products.

I would appreciate it if the members of the industry would cooperate with the Association as well as with the Standards Committee to the fullest extent, in the work that it is undertaking. The letter follows:

"UNITED STATES DEPARTMENT  
OF AGRICULTURE

Food and Drug Administration  
Washington, D. C.

August 4, 1939.

Mr. B. R. Jacobs, Washington Representative,

The National Macaroni Manufacturers Assn.,  
2026 Eye Street, Northwest,  
Washington, D. C.

Dear Mr. Jacobs:

The field force of the Food and Drug Administration is now making a preliminary survey of the macaroni and noodle industry preparatory to a consideration by the Food Standards Committee of identity standards for these products. Appreciating the fact that many of these plants visited will be members of your Association, it seems appropriate to advise you that the purpose of these inspectional visits is to acquire essential data and information for the Committee, and that they have not been planned for the purpose of discovering probable violations of the Federal Food, Drug, and Cosmetic Act. Assuming that the members of your Association are in sympathy with the object of our investigation, we believe that with this advice there will result more effective cooperation between your industry and this administration.

In its consideration of food schedules

the Committee has expressed the desire to receive from the industry concerned all possible factual information. To that end we welcome submission of such information either in the form of reports, briefs or by personal appearances on the part of national associations and independent manufacturers. It is not expected that there will be an opportunity at the next meeting of the Committee to give attention to the schedule on macaroni products and noodles, but due notice will be given well in advance of the meeting at which this schedule will come before the Committee, so that the industry will have an opportunity to present its views in writing or in person.

Very truly,  
(Signed) W. S. Frisbie,  
Chairman, Food Standards  
Committee."

The importance of this action to the entire macaroni industry cannot be over-stressed. Again it is the pleasure of the National Macaroni Manufacturers Association to serve the trade by representing its members directly and the others indirectly. Why should there be "any others"? The cost of Association membership is now negligible compared with the service rendered and no manufacturer of macaroni and noodle products should withhold his support. Place your confidence in the trade association of your industry, confer through it with other equally interested manufacturers and we will get the kind of standards that the industry wants. Here's another opportunity for helpful cooperative action, from which all will benefit, Association members and non-members. (These should be a rare species in a well organized macaroni industry.)

wheat from a crop almost as large as last year's began pouring into bins already crowded with carryover supplies.

This development, together with world-wide government subsidized competition for international trade on a scale seldom, if ever, equalled before, confronted the conferees at London.

Depressing factors included the heavy flow of new U. S. wheat and bright prospects for spring wheat in the northwest, particularly in Canada. Back of this, however, was the fact that the world's crop this year will be only slightly less than last year's bumper yield. According to the International Institute at Rome, if current prospects materialize, pro-

duction in the northern hemisphere, excluding Russia and China, may total 3,530,000,000 bus. This would be 10% smaller than last season but 11% above the average for 1933 to 1937.

The U. S. farmers' reduced acreage was largely responsible for the lower production prospect. A crop officially estimated at 716,655,000 bus would be 214,000,000 smaller than harvested a year ago but this country has a carryover of 265,000,000 bus from last season. Canada is expected to produce more than 400,000,000 bus, its largest harvest in 11 years, to add to an already big surplus. The total world carryover from last season is estimated at about double the 600,000,000 bus carryover a year ago.

### Wheat Prices Drop to Record Lows

World wheat prices sank early this week (July 12, 1939) to lows that had not been touched this early in the season for six to eight years, reports *The Northwestern Miller* of that date.

While representatives of the leading producing nations met in London in a new attempt to chart a course by which their governments hope to solve the international wheat problem, grain traders in Chicago, Winnipeg and Liverpool, the principal markets, sold on the prospect of a huge world surplus.

With farmers throughout the northern hemisphere marketing 1939 grain or preparing to harvest it, new

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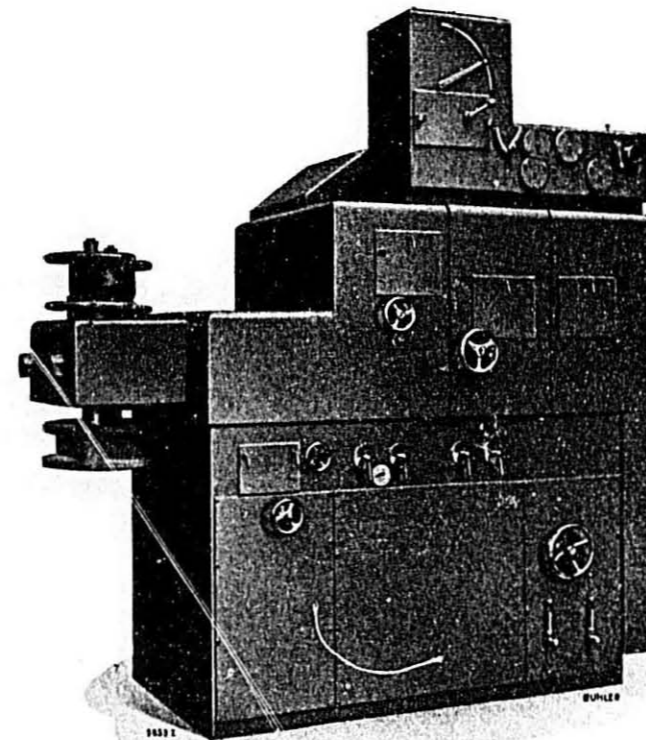
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## Quantitative Methods for Evaluating the Quality of Macaroni Products\*

D. S. Binnington, H. Johansson and W. F. Geddes

### Cooking Characteristics

The cooking properties of macaroni are highly important and may be roughly defined as the ability to resist disintegration upon prolonged boiling with water, coupled with a satisfactory degree of tenderness in the finished product. Quantitative measurement of such characteristics is a very difficult problem, and tests of this kind have been usually confined to a visual estimate of turbidity in the cooking water, coupled with mastication of the macaroni, as an index of tenderness. Early attempts to evaluate these qualities quantitatively by active boiling were unsuccessful; the amount of disintegration found was exceedingly variable and no method was available for measuring tenderness.

Recently, the Italian investigator Borasio (1935) has published a valuable paper on the cooking characteristics of alimentary pastes, and details methods he has developed for their investigation. His technique has served as a basis for the procedure to be described, and, as the original paper is not readily available, this work is reviewed in some detail. Borasio lists the principal characteristics of interest from a cooking standpoint as:

- (1) Degree or amount of cooking required.
- (2) Resistance to disintegration.
- (3) Capacity for absorption of water.
- (4) Increase in the volume of the paste.

A paste of good quality possesses a notable cooking degree (i.e., requires a relatively long time to cook), a high degree of resistance to disintegration, a large water absorption, and a considerable increase in volume. He points out that cooking tests made by active boiling are subject to considerable variation due to concentration and violent agitation, and outlines a test in which 250 g. of macaroni is cooked, without boiling, in 1 liter of 1% salt solution by means of an oil bath maintained at 105° C. The time in minutes required for complete cooking is taken as a measure of the cooking quality. Unfortunately, however, no indication is given as to the criteria employed to judge when cooking is complete.

In addition to ascertaining the cooking time, the water absorption

\*Continued from June issue. Reprinted by permission of Cereal Chemistry, March, 1939.

is determined by draining for five minutes on a Buchner funnel and observing the increase in weight. Volume increase is measured by placing the cooked and drained sample in a specially designed volumeter

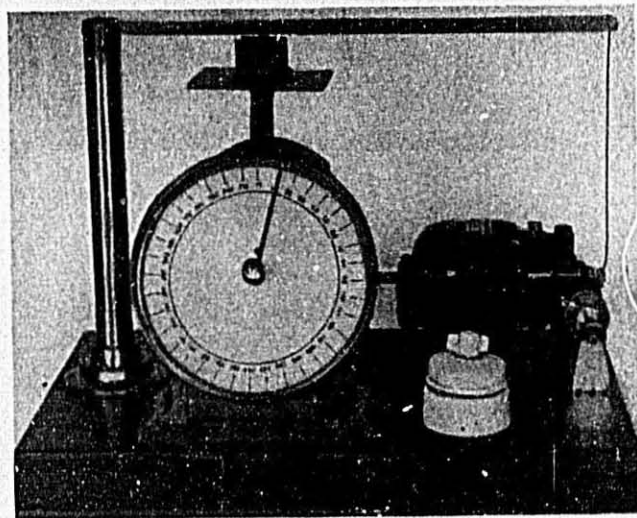


Fig. 1. Breaking-strength-tester.

and adding a known amount of water; the increase in volume is read from a graduated tube, a similar determination having been conducted with the uncooked material. Resistance to disintegration is estimated in an approximate manner by allowing the residual water from cooking to stand in a graduated cylinder and measuring the volume of deposited material. More accurately, the residual water is made up to definite volume and an aliquot evaporated to dryness on a steam bath in a tared beaker and dried to constant weight at 105° C., the presence of added salt being corrected for by a quantitative determination of chlorine. It is stated that with macaroni of good quality, the residue will not exceed 6%.

**Development of the test.**—In developing a test along the lines of the above procedure, it was felt that some method of measuring tenderness was essential, and as a preliminary, a tenderness tester was constructed, modeled along the lines of the instrument designed by Bonney, Clifford, and Lepper (1931) for canned fruits and vegetables. This device consists essentially of a plunger terminating in a circular

metal disc which rests upon the sample to which a load is applied at constant rate by means of mercury until a predetermined reduction in sample thickness is obtained; the weight of mercury is taken as an index of the tenderness.

The major factors associated with the test were investigated with a modified form of this apparatus, and the following conclusions drawn:

(1) It is necessary to take the mean of at least five replicate tests from a single cooking in order to secure a fair average.

(2) A definite optimum time of cooking appears to exist beyond which excessive softening results.

(3) Standing in water at room temperature for a moderate length of time (30 minutes) after cooking does not affect the results appreciably.

(4) Small variations in macaroni temperature have no significant influence on the compression values.

(5) The presence of salt in the water employed for cooking results in increased tenderness for a similar cooking time. There is some indication, however, that the variability is increased.

The selection of a suitable thickness to which the sample should be compressed remained to be determined and, in an effort to investigate this, a test was made in which the load was applied in increments of 100 g., the reduction in thickness being measured after each addition. The results, calculated as percentage reduction in thickness and plotted against load, are shown in Figure 2.

The initial rapid drop represents the collapsing of the tube walls under the weight of the plunger and flask; compression then proceeds at

(Continued on Page 20)

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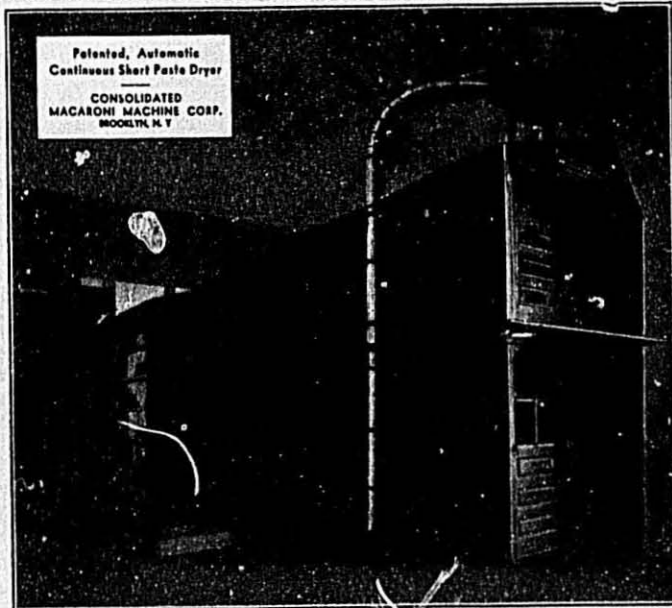
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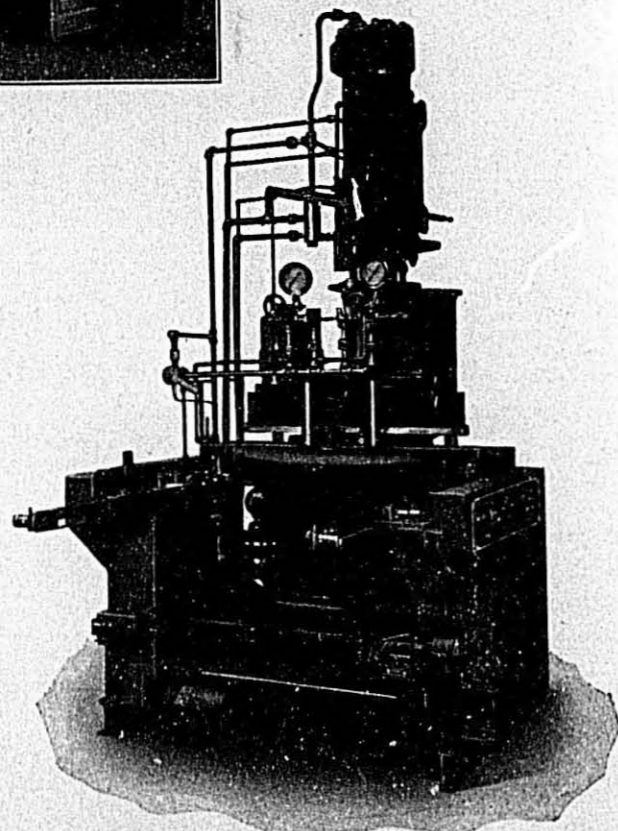
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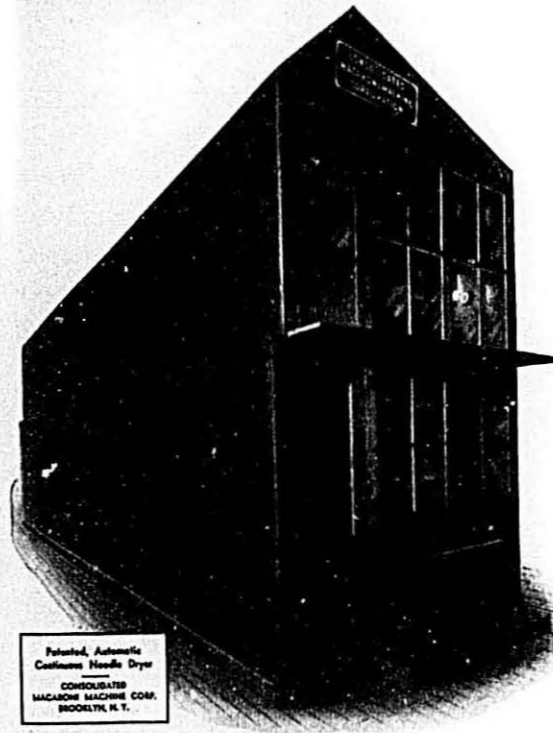
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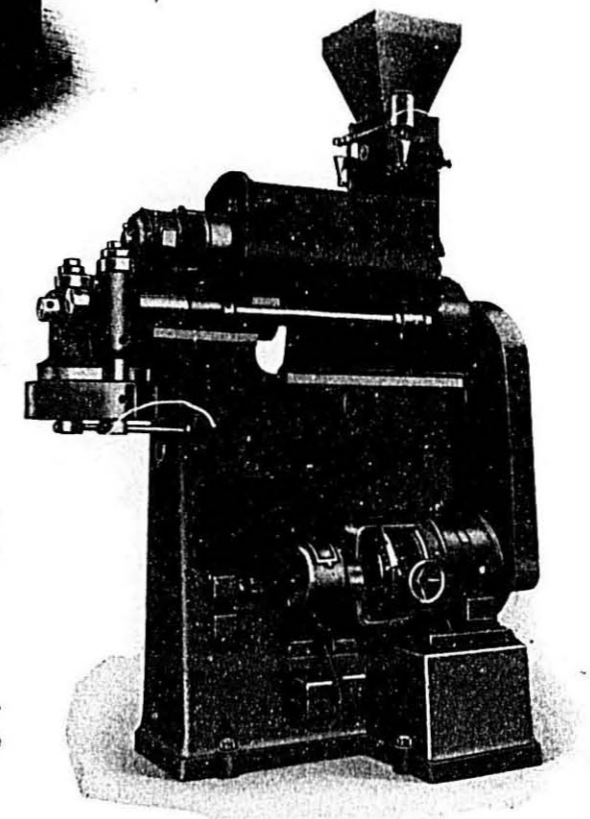


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(Continued from Page 16)

a uniform rate over a considerable load-range and then increases rather rapidly. Obviously, the latter corresponds to a definite "yield" or "break" point, at which the sample gives way completely. A very important point disclosed by these studies was the effect of rate of application of load, which must be quite uniform if comparable results are to be secured. This precluded routine application of the test in the manner described above and suggested the desirability of incorporating a recording device.

**Description of recording tenderness tester.**—The apparatus as finally developed is illustrated in Figure 3 and certain details in Figures 4 and 5. It consists essentially of a plunger terminating in a circular brass disc 30.5 mm. in diameter and fitted with a platform to hold a 125 ml. flask. The total weight of this assembly, including the flask, is approximately 160 g. Means are provided for loading with mercury at a constant rate, and the compression characteristics of the sample may be measured in terms of weight of mercury with the aid of a micrometer device, or a record may be obtained upon a slow-speed kymograph chart.

The main assembly is mounted on a stout pillar and is so located that the recording pen is approximately  $\frac{1}{4}$  inch below the top of the chart when the disc is in contact with the base of the instrument. This position is designated as the zero point and corresponds to a micrometer setting of .500 inch. The micrometer head is insulated from the remainder of the assembly, and an exact indication of the zero point is secured by means of an electrical contact between the micrometer spindle and a metal strip attached to the platform; this contact may be made to actuate a buzzer or signal light as desired. Setting of this zero is facilitated by mounting the contact strip on the end of a strip of spring bronze, which is raised or lowered by means of a fine thread screw. The micrometer device is employed to measure the original thickness of a sample and can then be set to indicate when compression has proceeded to a specified fraction of this amount; alternatively it may be used to establish a thickness scale upon the kymograph chart. This scale is then transferred to a strip of celluloid and used in measuring and interpreting charts obtained with the recording device.

For recording purposes, the vertical motion of the plunger is multiplied by means of a long lever arm coupled to the platform by means of the pin-and-slot device, illus-

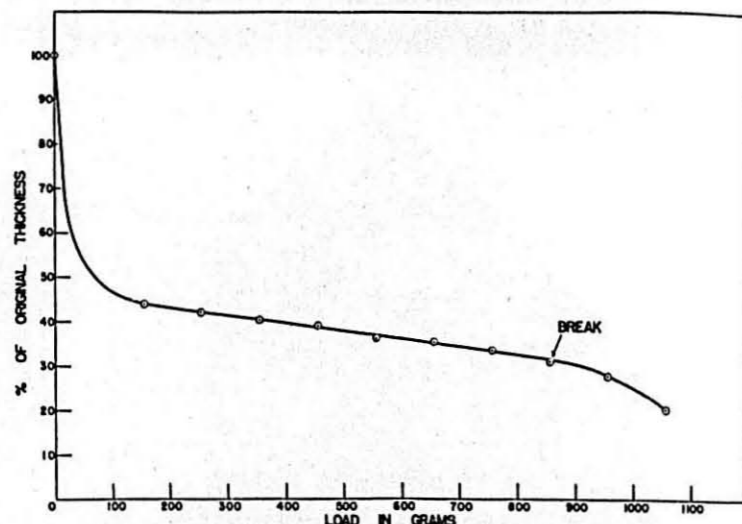


Fig. 2. Graph showing reduction in thickness of cooked macaroni with increasing load.

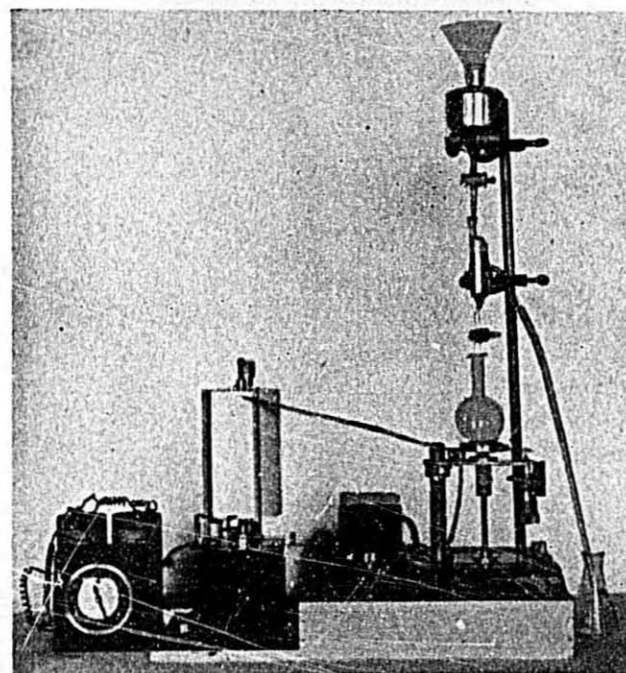


Fig. 3. Recording tenderness tester.

trated in Figure 4. When properly fitted, this system is practically free from backlash and permits of establishing a linear thickness scale upon the chart. In order to prevent turning of the platform with consequent disengagement of the pin from the slot, the plunger is key-way cut and a key fitted into the bearing. A lock screw is also fitted enabling the system to be temporarily held in a raised position.

Recording is accomplished upon a kymograph drum 4 inches in diameter by  $6\frac{1}{4}$  inches in height, rotating at a speed of one revolution in approximately 11 minutes. The drive is from the hour spindle of a spring-wound clock suitably geared up. Unless very carefully constructed with specially cut gears, such a system possesses considerable backlash, and a uniform time scale cannot be established. For this reason, the kymograph has been fitted with

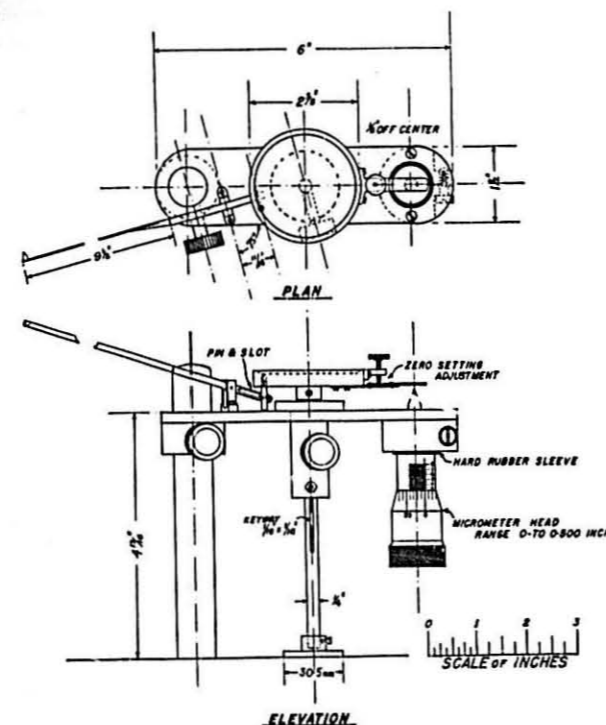


Fig. 4. Recording tenderness tester; detail of main assembly.

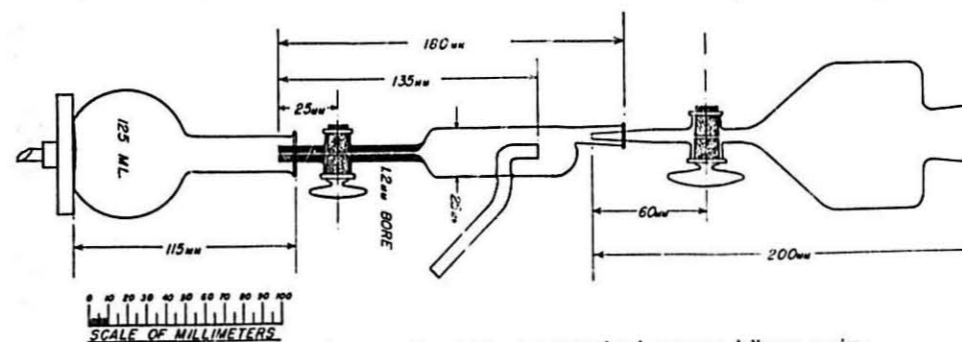


Fig. 5. Recording tenderness tester; detail of constant-head mercury delivery service.

a time-marking device actuated from a modified Telechron clock marking every 15 seconds. A synchronous motor drive would undoubtedly be superior to the clockwork arrangement described and might eliminate the necessity of an independent time-marking system.

Load is applied to the sample at a constant rate of approximately 12 g. per second, by means of mercury delivered from the constant-head device. In this apparatus, mercury flows into the constant-level vessel at a rate slightly in excess of its delivery to the loading flask, the surplus overflowing into a receiver. With this arrangement the head may be maintained constant within 1 to 2 mm. The orifice of the delivery tube is adjusted to deliver 57

c.c. per minute. Clean, redistilled mercury is employed and the delivery rate checked frequently, as it tends to slow down with time due to surface oxidation. When it has fallen to 55 c.c. per minute, the mercury is removed and cleansed by spraying through dilute nitric acid; the apparatus is also cleaned with the same solvent.

A typical record obtained with the tenderness tester is illustrated in Figure 6, together with details of the various characteristics of the curves that have been found most valuable in recording and interpreting the results.

The best single index appears to be the time from the start of application of load to the break point. (This value can be expressed as

actual load, because the rate of application is constant; in view of the magnitude of the internal variability, however, no useful purpose could be served by such twelve-fold increase in these values.) The second value recorded is the time required to compress the sample to an arbitrary thickness of 0.115 inch. This point was selected because in the majority of cases it falls in the linear portion of the record and definitely below the break-point. The third value employed is the angle made between a prolongation of the linear portion of the curve and the so-called base line. A fourth value is secured by computing the ratio of "time to reach 0.115 inch" to "time to break." From these values a single-figure tenderness score is tentatively computed by the following formula:

$$\text{Tenderness score} = \text{time to break} + \text{angle} + (\text{ratio} \times 10).$$

**Details of cooking testing procedure.**—A high-temperature thermostat is employed for the actual cooking and is so adjusted that the water temperature in the beakers falls between 95.5° and 96.0° C. If oil is employed in the bath, a temperature of 105° to 106° C. is required; if, however, ethylene glycol (commercial Prestone) is used, a temperature of only 101.0° to 101.5°

C. is required. A 500-c.c. tall-form lipless beaker is placed in the bath and 250 c.c. of distilled water, previously heated to approximately 95° C., is added. The beaker is covered with a watch glass and allowed to remain until the temperature reaches 95.5° to 96.0° C. A 25-g. sample of macaroni is introduced and thoroughly stirred. Cooking is continued for exactly 30 minutes, with stirring at 10-minute intervals. The beaker is then removed from the bath and the macaroni drained in a tared basket for two minutes, weighed, transferred to a beaker, and washed three times with cold tap water.

The sample is stored under tap water until required for the tenderness measurements which are made

upon five strands selected at random, drained and placed on filter paper before locating under the plunger of the apparatus.

The additional values detailed by Borasio (1935) are outlined below.

**Volume of dry macaroni.**—This determination is conducted with a 10-g. sample and a small volumeter consisting of a 50-c.c. Erlenmeyer flask fitted with a ground-glass joint and a measuring tube graduated from 0 to 10 c.c. in 1/20 c.c. High-boiling petroleum naphtha is employed as the displacing liquid since water might introduce appreciable errors due to swelling during the determination. Borasio used water and apparently determined the dry volume on the cooking test sample; in our experience this prior wetting introduces serious irregularities into the tenderness results.

**Water absorption.**—This value is computed from the increase in weight upon cooking as outlined above.

**Volume increase with cooking.**—Originally, the measurement of wet volume was conducted according to the procedure outlined by Borasio, with a specially built volumeter. Examination of a large number of results, however, indicated that a very close relation existed between wet weight and volume, and statistical analysis of these data showed a correlation of .984, a value

sufficiently high to permit of accurate prediction of the latter from the former by the following formula:

$$\text{Volume of cooked macaroni} = -8.81 + 1.0085 \times \text{net weight.}$$

The volume increase may be obtained by relating the wet volume

to the dry volume; this latter value, however, has been found to vary only within a very narrow range, and for this reason it seemed unnecessary to carry this phase of the testing beyond the determination of water absorption.

(To be concluded in next issue)

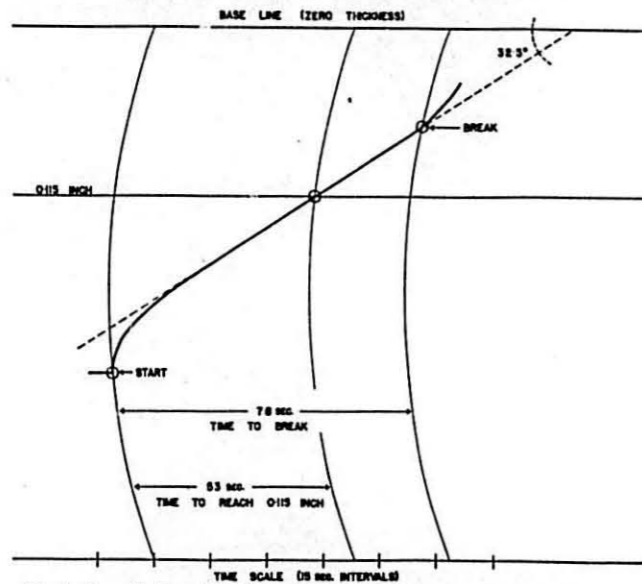


Fig. 6. Reproduction of tenderness test chart illustrating the measurements employed for evaluation.

# A WELL KNOWN FACT

Only the **FINEST** grade Durum Wheat will make a **UNIFORM** Semolina.



What you **PUT IN** at the top of the mill comes out at the bottom.

**EASTERN SEMOLINA MILLS, INC.**

Colburn S. Foulds, President

Executive Office, 220 West 42nd Street

New York, New York

## National Weeks

### National Spaghetti-Noodle Week, October 7 to 14

Plans for the general observance of the Macaroni Industry's third consecutive annual week are being made with the greatest care and with the hope that it will attract the industry support that it merits.

The dates for the annual event recommended by The National Macaroni Institute, and unanimously approved by the manufacturers and allied at the New York convention of the Industry last June include two week-ends. This is accomplished by starting the week on a Saturday and ending it the following Saturday.

Funds for its national promotion will be solicited from manufacturers and allied interested in bringing macaroni products to the special attention of prospective new consumers. Plans whereby manufacturers can best capitalize the opportunity will be announced as definite financial support is assured.

Every macaroni-noodle manufacturer will be invited to cooperate in the proper observance of The Industry Week, October 7-14, 1939.

**National Retail Grocers' Week** National Spaghetti-Noodle Week, October 7-14, 1939, will be followed immediately by National Retail Grocers' Week, October 16 to 21.

With the designation of the dates by the National Association of Retail Grocers, elaborate plans are being made to make this annual event the most successful ever conducted by Nargus. Not only will it be a merchandising event, but a broad education campaign will be sponsored to acquaint the general public with the men and women who serve them as retailers of their daily food.

Since these two weeks follow one another, there is much that retailers and macaroni-noodle men can do in cooperative promotion.

### Ready for Macaroni Census

The United States Bureau of Census has completed its plans for its biennial census of macaroni-noodle manufacture for the year 1939. Forms for the usual census report by manufacturers will be ready for distribution shortly after the close of the present year.

The 1937 Census of Macaroni Manufacture which was ready for distribution quite early in 1938 was made possible by the splendid cooperation of the manufacturers in making early returns, and since this census provided about the only reliable figures obtainable on the production of this food, all manufacturers are urged to be equally prompt in making their returns as early as

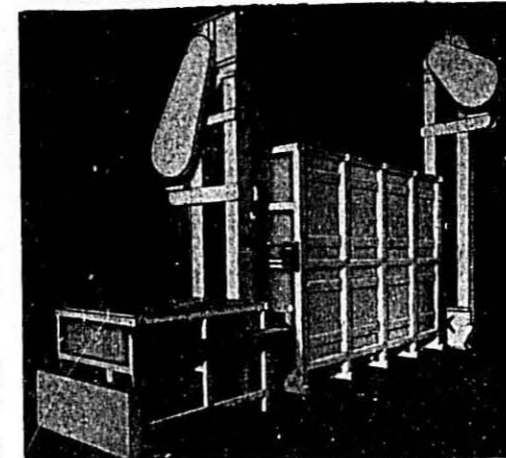
possible after January 1, 1940. Bookkeepers should be instructed now to start getting facts and figures ready for this very important report.

Data for the 1937 report was compiled from returns by 420 manufacturing establishments, consisting of 319 establishments classified in the Macaroni and Noodle Industry, and 101 establishments classified in other industries (bakery, foods not elsewhere classified and other industries) which manufacture macaroni and noodles as secondary products.

In 1937, the 319 reporting establishments calculated that their total

production was 636,921,220 pounds, made up of 536,934,579 pounds of plain macaroni, spaghetti, vermicelli, etc.; 93,941,980 pounds of egg noodles and 6,094,666 pounds of plain or water noodles. Adding to this the production of the 53 establishments whose output that year was valued at less than \$5,000 each, the total production was considerably in excess of 650,000,000 pounds in 1937.

What will it be this year? Exact and prompt returns by all the manufacturers will help to obtain valuable and dependable figures by the middle of the coming year.



Get **Champion** Prices . . . before you buy

## THIS CHAMPION SEMOLINA BLENDER

**SAVES TIME • SAVES HARD, BACK-BREAKING LABOR • SAVES DIES • SAVES MONEY . . .**

The surest way to increase profits is to cut production costs. The Champion Semolina Blender, illustrated above, is one of the cost-reducing units engineered by Champion. Insures sanitary handling of the flour, uniform sifting and removal of all foreign substances, plus perfect blending and cleanliness of the dies. Speeds up production and improves the quality of your products. Automatic operation and built for a lifetime of service with virtually no cost for upkeep.

Other Champion profit producing equipment include Dough Mixers, Weighing Hoppers, Water Scales and Noodle Brakes—all accurate and automatic in operation.

All Champion Machinery is reasonably priced and sold on easy time-payments with no carrying charges.

### CHAMPION MACHINERY CO., Joliet, Ill.

Send me complete information regarding your Champion Semolina Blender and Sifter; also, price, terms and tell me about your Easy Installation Payment Plan. I am also interested in securing a . . .

NAME . . . . .

COMPANY . . . . .

ADDRESS . . . . .

CITY . . . . . STATE . . . . .

It Will Pay You to Clip and Mail Coupon for Details

**Seek Cease and Desist Order**

The enforcement division of the National Macaroni Manufacturers' Association has taken steps to get a cease and desist order from the Federal Trade Commission against a firm that is attempting to sell the trade an ingredient that is considered an adulterant. It claims to be "Vitaminized Pure Egg Yolks."

Members of the Association are being advised of the action and warned against attempting to use ingredients of that nature. Action is predicated on the theory, and probable fact, that the material is being offered for use as a substitute for egg yolks; further on the grounds that such materials are usually colored with carotene or other coloring agents.

Steps are also being taken to watch

\*The producers of the ingredient in their literature imply that it is impossible to detect the so-called vitaminized egg yolks and artificial coloring supposedly contained, but the Macaroni Laboratory is sure that it can easily detect the presence of this product in any quantity in which it may be used, either as an egg substitute or an artificial color.

the markets for finished products containing this ingredient to ascertain whether or not the suspected brands are in violation of the federal and state food laws.

**Elected Vice President**

Louis N. Brockway has been elected a vice president of Young & Rubicam, Inc., and beginning August 15th will have charge of contact on all General Foods products handled by the agency, according to an announcement by Raymond Rubicam, Chairman of the Board. Mr. Brockway, in his new work, will succeed Clarence E. Eldridge, who has resigned from the agency to become a vice president of the General Foods Sales Company, Inc.

Mr. Brockway has been with Young & Rubicam for nine years, all of that time as one of the account executives on General Foods work. Since January 1st he has been associate head of General Foods contact under Mr. Eldridge.

**Macaroni Imports and Exports**

The Monthly Summary of Foreign Commerce, published by the Bureau of Foreign and Domestic Commerce, for May, 1939, shows that the macaroni imports increased while the exports continued to decrease.

**Imports**

During the month of May, 1939, the imports increased to 133,422 pounds worth \$13,524 as compared with the figures for April, totaling only 67,718 pounds, valued at \$6,164. The first five months of 1939 show 425,564 pounds of this foodstuff imported at a cost of \$41,683.

**Exports**

Macaroni products continued to drop off during May, 1939, when only 180,476 pounds were exported with a value of \$14,587 as compared with the exports for April, 1939, which were 252,258 pounds worth \$19,093. The total exports for the first five months of 1939 were 1,225,635 pounds valued at \$95,511.

Macaroni products were exported to the following countries during April, 1939:

Countries	Pounds
France	490
Sweden	2,200
United Kingdom	10,803
Canada	40,079
Costa Rica	230
Guatemala	946
Honduras	495
Nicaragua	1,462
Panama, Rep. of	6,325
Panama, Canal Zone	7,126
Salvador	1,879
Mexico	33,697
Newfoundland & Labrador	13,682
Bermuda	1,025
Trinidad & Tobago	2,369
Other Br. W. Indies	2,523
Cuba	8,270
Dominican Rep.	6,552
Neth. West Indies	3,656
Haiti	5,009
Colombia	736
Br. Guiana	300
Sirinam	228
Peru	144
Venezuela	564
British India	12
China	292
Netherland Indies	994
Hong Kong	762
Philippine Islands	24,275
Br. Oceania	231
Fr. Oceania	567
New Zealand	96
Br. East Africa	26
Un. of So. Africa	720
Liberia	351
Mozambique	360
<b>TOTAL</b>	<b>180,476</b>

**Insular Possessions**

Alaska	39,953
Hawaii	75,827
Puerto Rico	127,111
Virgin Islands	1,702
<b>TOTAL</b>	<b>244,593</b>



**King Midas Luncheon Group**

Annually the executives of the durum department of King Midas Flour Mills of Minneapolis, Minn., entertain the ladies who attend the conventions of the National Macaroni Manufacturers Association. Here are pictured the guests at luncheon at Radio City, New York, Tuesday, June 27, 1939. Among those invited were:

- Mrs. P. F. Vagnino, Kansas City, Mo.
- Mrs. Louis S. Vagnino, St. Louis, Mo.
- Mrs. T. Viviano, St. Louis, Mo.
- Mrs. Peter Viviano, Louisville, Ky.
- Mrs. Sam Viviano, Carnegie, Pa., and daughter
- Miss Jennie Cunco, Connellsville, Pa.
- Miss Schreni
- Miss Rose Sarli, Kansas City, Mo.
- Mrs. John Larsen and daughter, Tecumseh, Mich.
- Mrs. Lester S. Dame, New York, N. Y.
- Mrs. C. W. Wolfe, Harrisburg, Pa.
- Mrs. Kaylor
- Mrs. John Krahulec, Braidwood, Ill.
- Mrs. Thos. Cunco and daughter, Memphis, Tenn.
- Mrs. E. T. Villaume, St. Paul, Minn.
- Mrs. Albert S. Weiss, Cleveland, Ohio
- Mrs. Ralph Nevy and daughter, Cumberland, Md.
- The Misses Ronzoni, Long Island City, N. Y.
- Mrs. J. H. Diamond, Lincoln, Nebr.
- Mrs. P. R. Winebrenner, Philadelphia, Pa.
- Mrs. Alfred Rossi, Auburn, New York
- Mrs. M. Procine, Auburn, New York
- Mrs. G. LaMarca and daughter, Boston, Mass.
- Mrs. W. J. Dougherty, Philadelphia, Pa.
- Mrs. David Wilson, New York, N. Y.
- Mrs. W. F. Ewe, Minneapolis, Minn.
- Mrs. Geo. L. Faber, Chicago, Illinois

**Old Dad MacNoodle**

says:

**Questions Stimulate Action**

A successful salesman told me, "I never yet met a buyer who could not be made to talk by asking him questions. Some of these birds who sit back with the wisdom of an owl in their faces and the brains of a gnat in their heads, are hard to get started. But they will answer questions if I ask enough of them."

There may be something in that method. At all events it is important that the prospective purchaser be induced to talk. An old manual of the Curtis Publishing Co. contained this, in urging the questioning method: "Don't let things lag. Keep everything coming your way; that is, so arrange it that everything said is in your favor, asking questions to keep it that way."

A salesman may combine the qualifications of Vash Young and Dale Carnegie and yet get nowhere with a customer who will not open his head, save to yawn.

Questions, skillfully chosen, a supply of them kept in reserve for use when needed, will certainly bring results, even though the replies may not be answers.

It is a salesman's business to know all the answers when he encounters sharp, questioning customers, but it should be his business, too, to know a lot of the questions.

Questions are apt to be the only solution to the problem of how to find out what those "strong, silent men" are thinking. And if you do not know what is in the prospect's mind, how can you expect to meet the objections he is mentally making.

Abraham Lincoln once declared: "There are two things even God Almighty doesn't know; how an Illinois jury will decide and who a widow will marry." To these might be added: "What the buyer is thinking who will not talk."

Few salesmen are sufficiently psychic to read the mind behind the poker face of a prospect physically present but mentally absent, and it seems almost futile to go on hammering away on one fact or yammering about another, just hoping to strike fire by accidentally touching what is in the buyer's mind.

**Will Adjust Wage Law Complaint**

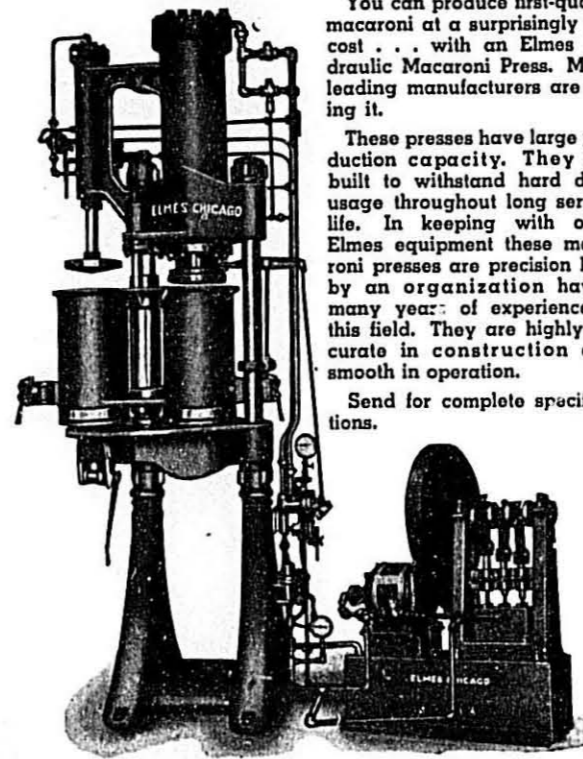
The Chicago Macaroni Company, Chicago, Illinois, which was indicted last month charged with violating the Federal wage and hour law, has taken steps to settle the matter, according to Mr. Steve Matalone, president of the concern. "Charges against the firm were due to the fact that a few months ago we were rushed with orders and had a few men work overtime. Instead of paying them time and a half, we paid them the regular way," says Mr. Matalone. "At this writing we are pleased to state that

this little incident is being straightened up."

The indictments charge the company with not paying the 25c per hour required under the wage and hour law, according to press notices of the action, with not paying time and one half for overtime, and falsification of work records or failure to keep work records.

The Chicago Macaroni Company, according to the indictment, employs nearly 200 persons, has an annual payroll of \$165,000 and did a gross business of more than \$2,000,000 last year. It claims a daily capacity of 175,000 pounds.

**FIRST QUALITY AT LOW COST**



You can produce first-quality macaroni at a surprisingly low cost . . . with an Elmes Hydraulic Macaroni Press. Many leading manufacturers are doing it.

These presses have large production capacity. They are built to withstand hard daily usage throughout long service life. In keeping with other Elmes equipment these macaroni presses are precision built by an organization having many years of experience in this field. They are highly accurate in construction and smooth in operation.

Send for complete specifications.

**CHARLES F. ELMES ENGINEERING WORKS**  
213 N. MORGAN ST. Chicago SINCE 1851

We come nearest being just in our thoughts of others when we are generous in our thoughts of others.

### Charles C. Rossotti Married

Popular Executive of Rossotti Lithographing Company Takes a Successful Grocery Executive as His Wife, July 22, 1939

Having announced his engagement and approaching marriage at the recent convention of the National Macaroni Manufacturers Association

The happy bride is popularly known as "Betty." She is the vice-president of her father's firm, a large importing and wholesale grocery organization. She was born and raised in Pittsburgh, Pa., spent a year in Florence, Italy, after completing her high school work and on her return attended a finishing school in Virginia. After graduating from the University of Pittsburgh, she became associated with her father and since

receptions at Connellsville, Pa., by Vice President Joseph J. Cuneo of the National Association; at Chicago by Directors A. Irving Grass and Frank Traficanti, and in Lincoln, Nebraska, by President and Mrs. J. H. Diamond.

### More Information for Employes Regarding Their Company

Better company relations with the public and within the company usually result when employes are reliably and regularly informed concerning their company's general plans, policies and problems. This seems to be the conclusion reached by many of the 160 companies whose methods are described in a new report "More Information for Employes Regarding Their Company" just issued by the Policyholders Service Bureau of the Metropolitan Life Insurance Company.

A significant fact disclosed by this study is the increasing attention being given to finding out what employes want to know about their company before starting a program of education. The questionnaire technique, found to be extremely helpful, is discussed and the actual results of one typical questionnaire are given.

An analysis of the contents of various media used to reach employes is given in a summary table. This shows more than 100 different subjects and answers to the question "What are companies telling their employes?"

A considerable portion of the report is taken up with descriptions of various types of media used for informing employes, the extent of their use, their relative merits and the conditions under which each seems best suited. To offer a typical picture, the complete employe-information programs of three companies are outlined.

### Resigns

H. W. Kestila, for the past 8 years employed by Keystone Macaroni Mfg. Co., Lebanon, Pa., has resigned his position with that concern. During the time Mr. Kestila worked at Keystone, he was credit manager, sales manager and purchasing agent.

Before coming to Keystone, Mr. Kestila was employed by Washburn Crosby Company as assistant sales manager in the Semolina and Rye Departments.

Mr. Kestila intends to stay in the macaroni business as a broker supplying the trade with such supplies as shooks, cellophane and celloface bags, printed cellophane in sheets and rolls, corrugated cases, and macaroni paper.



ON HONEYMOON'S TRAIL

Charles and Betty start on their honeymoon that will take them to Canada, Mexico and all points West in the United States via auto, train and plane. The happy bride was Miss Elizabeth Victoria Ossola and the proud groom is Charles C. Rossotti, both well known macaroni-noodle manufacturers.

in New York City last June, Charles C. Rossotti, vice president of the Rossotti Lithographing Company of New York, became a benedict on July 22, 1939. His bride was Miss Elizabeth Victoria Ossola, daughter of Mr. and Mrs. Jack Ossola of Pittsburgh and New York City.

The simple, but impressive wedding ceremony, performed in St. Mary's Church, Alexandria, Virginia, was witnessed by members of the two immediate families and many friends. This was followed by an informal reception that was attended by scores of relatives and friends of the two youngsters. The day was of double significance to the groom, being his birthday as well as his wedding day. "On that day, I was 36 years old," said the proud benedict, "and I knew of no better way to celebrate it than by taking unto me a wife to share my fate."

has been in charge of the New York branch of the firm.

The groom, who prefers to be called "Charlie," is vice-president in charge of sales of the Rossotti Lithographing Company, North Bergen, New Jersey. He entered his father's business in 1921 and with his brother Alfred helped to make it one of the largest concerns that supplies the macaroni-noodle manufacturers with cartons and labels. He is one of the best known allied in the macaroni industry, having called on practically every important manufacturer during his 18 years of service.

Mr. and Mrs. Charles C. Rossotti spent their honeymoon touring the United States, Mexico and Canada by rail and plane, and plan to be at home to their many friends at Tracey Garden, Englewood, N. J., after September 1st. En route west on their honeymoon they were given

### Conditions Favor High Domestic Prices for Wheat, in Relation to World Prices

Conditions continue to favor high domestic prices for wheat relative to world prices, the Bureau of Agricultural Economics states in its current issue of The Wheat Situation. Prices in foreign markets are depressed by prospects of the largest wheat supplies in history, and prices at Liverpool have dropped to the lowest level in modern times.

Domestic prices have remained independently strong, in comparison, influenced by a prospective United States crop very little above the annual domestic disappearance, a large proportion of wheat being placed under loan, and announcement of the continuance of the export-aid program. The price of No. 2 Hard Winter wheat at Kansas City for June 1939 averaged only 6 cents lower than for June 1938, while the price of parcels at Liverpool averaged 36 cents lower than a year earlier.

Prospective world wheat supplies for the year beginning July 1, 1939, are now estimated by the Bureau at about 5,290 million bushels, or about 120 million bushels above the record

supplies of last year. References to world production and stocks report exclude the Soviet Union and China. The 1939 world production is now tentatively placed at about 4,090 million bushels, which is about 480 million bushels less than the record crop of 1938. This reduction, however, only partly offsets an estimated increase of approximately 600 million bushels in world stocks of old wheat carried over. The stocks on July 1 are tentatively placed at about 1,200 million bushels compared with about 600 million bushels a year ago.

Production in the Northern Hemisphere may be about 3,615 million bushels, or about 380 million bushels less than a year ago. Significant decreases, compared with 1939, are indicated for the United States and Europe, while larger crops are estimated for Canada and Northern Africa. The United States crop is estimated to be 214 million bushels below the production last year and the European crop about 215 million bushels less than in 1938. In the Southern Hemisphere seeding is nearing completion and present indications point to a somewhat smaller crop in Argentina, but a slight increase in production in Australia.

European wheat stocks have been greatly increased during the past year

and world trade in wheat and flour in 1939-40 may not be as large as in 1938-39. It is possible, however, that political and military considerations in Europe might induce further large purchases during the year. In the European exporting countries prospects are again for large crops, although significantly below the record production of a year ago.

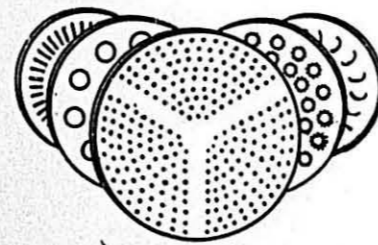
A United States wheat crop of 717 million bushels was indicated as of July 1. This is about 15 million bushels larger than the average domestic disappearance during the past 2 years, and about 30 million bushels larger than the 10-year (1928-37) average. If exports should turn out to be near the 10-year (1928-37) average of about 70 million bushels, a crop of this size would cause the carry-over on July 1, 1940 to be significantly reduced below that for 1939, which is estimated to be about 265 million bushels.

Where some are goaded to desperation; others are prodded to destinations.

So few meet with success because so many expect success to meet them half-way.

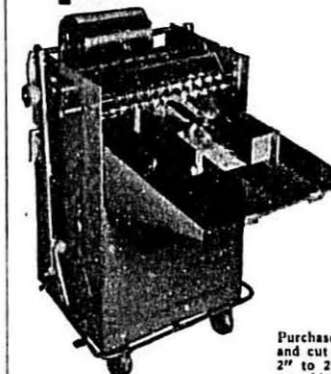
## STAR DIES WHY?

Because the Following Results Are Assured  
SMOOTH PRODUCTS—LESS REPAIRING  
LESS PITTING — LONGER LIFE



THE STAR MACARONI DIES MFG. CO.  
57 Grand Street New York, N. Y.

## CELLOPHANE USERS ... WHO ARE HAND WRAPPING



Investigate  
this  
PETERS  
CELLOPHANE  
SHEETING  
AND  
STACKING  
MACHINE  
and save  
10-25%  
of cost

Purchase your cellophane in rolls and cut to desired size sheets from 2" to 24" wide x 3" to 28" long on this fully automatic machine.

When Stacker Table is filled, machine automatically stops. No operator is required. Machine is portable, operates from electric light socket and requires floor space of only 3' x 4'. Slitter, Counter and Electric Eye Attachment furnished, if desired.

Ask us to send you complete information. It will be a pleasure to promptly do so without obligation.

PETERS MACHINERY CO.  
4700 Ravenswood Ave. Chicago, Ill.

**"Quickies" Are Introduced**

A rose by any other name smells just as sweet. By the same reasoning, elbow macaroni by any other name is the same delightful and satisfying food but with added appeal.

Minnesota manufacturers like to call their macaroni products pretty names. There are the "Creamettes" by The Creamette Company, Minneapolis, and now comes the Minnesota Macaroni Company with the name "Quickies." Introduced last month, here's what the press says of the product, the producer and the advertising campaign that introduced the common shape of macaroni under an alluring name:

Quickies, an absolutely new and quicker cooking macaroni made by the Minnesota Macaroni Company, was introduced to the retail trade with the biggest advertising and merchandising campaign ever presented for macaroni in St. Paul.

Advertisements appear in the *St. Paul Dispatch-Pioneer Press* four times a week from the start of the campaign in February right on into November. This consistent barrage of advertising in the *Dispatch-Pioneer Press* is bound to make customers buy Quickies. And when the housewife

buys Quickies she also buys related items.

Seventeen downtown and neighborhood theaters are showing Quickies movies for thirty-three theater weeks.

There are thirty-eight billboards in St. Paul, illuminated and regular, showing the package and the premium.

Store and window hangers, in four colors, sell the merchandise.

**Macaroni, Spaghetti Grow in Popularity**

Here's how the *Gazette* of Charleston, W. Va. puts it: Even on the warmest days we find at least one hot dish on every dinner table. What could be better than macaroni or spaghetti, served the way the family likes them best, plus a combination summer salad, cool drink and a dessert? There is no meal more nourishing that can be prepared as quickly with as little heat. And there is none more economical.

Macaroni and spaghetti are becoming popular as salad bases with elbows, green vegetables, eggs, pickles, ketchup, and mayonnaise.

**Credits Fresh Air**

The following taken from the One Hundredth Anniversary edition of *The Herald-News*, Joliet, Illinois

(May 14, 1939), has an interesting industry angle:

Fresh air plays an important part in the production of macaroni, which is one of the reasons why the Bossi Macaroni Company is located at Braidwood. Officials of the plant claim that macaroni dried where the air is fresh and sweet gives the macaroni a better flavor.

The Rossi Company is the third oldest macaroni manufacturing plant in the United States and its products are used extensively throughout the nation.

Strangest fact about macaroni products is that the size and shape determine the taste. With very little change in the ingredients, spaghetti, four kinds of noodles—sea shells, rings, alphabets, rosa marino—and vermicelli are made as well as the macaroni.

Forty men and women are employed at the Rossi plant.

**Truly a Melting Pot**

America is truly the melting pot of the world. Another proof of this is the following item from the *Standard-Times* of Bedford, Mass.:

"The Priscilla Alden Club will hold a public dancing and whist party Friday evening at Alsace-Lorraine Hall.

"The committee in charge consists of Mrs. Mary Longhi, Mrs. Edith Sgarzi, Mrs. Adele Canevazzi, Mrs. Romana Pirani, Mrs. Marmelina Balboni and Mrs. Angelina Lenari."



**One and Only Driving Lesson**

If an automobile driving novice were permitted only one driving lesson, none would be more instructive and effective than the following:

"Always Expect the Other Fellow to do the Wrong Thing. You are then in a Position to do the Right Thing."

Rely on the other fellow to slow down, or depend on the other driver to give you the right of way—he'll do it only four times out of ten, according to a recent highway survey in Massachusetts.

Too many of us put too much faith in the ability and good intentions of the other driver. Cromwell once said, "Trust in the Lord, but keep your powder dry."

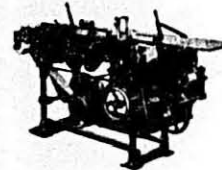
Do not depend on the other fellow. Slow down instead of expecting that the other driver will step on his brake. Yield the right of way when there is a question. Keep your car in such shape that you can meet all emergencies instantly.

It's smart to be careful.

**Carton Packaging Savings Today Are Tomorrow's Profits**



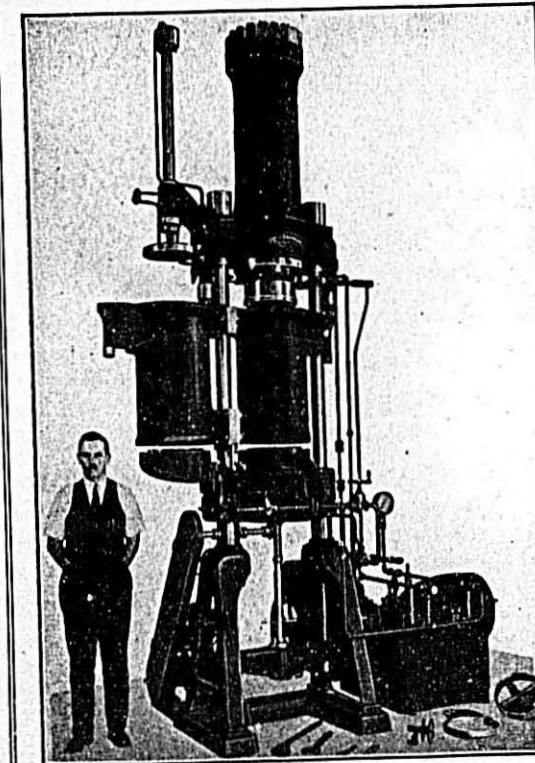
SET UP your macaroni and spaghetti cartons with this fully automatic PETERS SENIOR CARTON FORMING AND LINING MACHINE at speeds of 30-60 cartons per minute. For productions of 10-40 cartons per minute, adjustable JUNIOR Model equipment is available.



CLOSE your macaroni and spaghetti cartons with this fully automatic PETERS JUNIOR CARTON FOLDING AND CLOSING MACHINE at speeds of 30-60 cartons per minute. JUNIOR Model equipment also available to close 10-40 cartons per minute.

Send us samples of your cartons or advise their sizes. We will be pleased to recommend machines to suit your requirements.

**PETERS MACHINERY CO.**  
4700 Ravenswood Ave. Chicago, Ill.



PRESS No. 222 (Special)

**QUALITY SEMOLINA**

**DURAMBER**  
EXTRA FANCY  
NO. 1 SEMOLINA

**IMPERIA**  
SPECIAL  
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**FANCY**  
**DURUM PATENT**

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DAILY CAPACITY—2,000 BARRELS

Exclusive Durum Millers

J. F. DISPENBACH President Minneapolis E. J. THOMAS Vice Pres. & Gen'l Mgr.

**John J. Cavagnaro**  
Engineers and Machinists

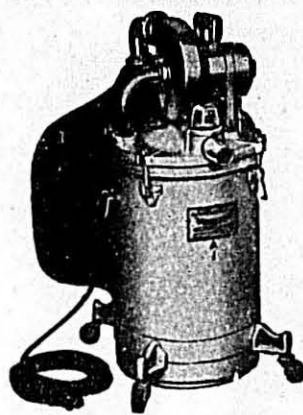
Harrison, N. J. - - U. S. A.

Specialty of  
**Macaroni Machinery**  
Since 1881

- Presses
- Kneaders
- Mixers
- Cutters
- Brakes
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- Moulds

All Sizes Up To Largest in Use

N. Y. Office and Shop 255-57 Center St. New York City



**CUT COSTS 3 WAYS WITH A BREUER'S BALL BEARING TORNADO INDUSTRIAL VACUUM CLEANER**

1. Powerful suction (1 H.P. O. E. motor) pulls dust, dirt, flour and semolina that breeds insects and molds, from crevices and corners, on floors, pipes, bins, chutes, blenders, sifters and dryers. Safeguards your products and equipment; improves working conditions.
2. Cuts power bills, motor maintenance and bearing replacements by cleaning out destructive dust; reduces fire hazards.
3. Sprays insecticides. Readily converted into a powerful sprayer, throwing a fine mist that penetrates every crevice.

**What User Says!**

These rugged portable units are saving money in many macaroni and noodle factories. Built to last for years. Furnished complete with attachments for cleaning entire plant and all machinery. LaRosa Macaroni Company, Brooklyn, N. Y., says, "It saves repairs for us and does a real cleaning job." Write today for new catalog, list of users and free trial offer.

**BREUER ELECTRIC MFG. COMPANY**  
5076 N. Ravenswood Avenue, Chicago, Illinois





**Cellophane at the Fair**

Macaroni-noodle manufacturers who were in New York City in June attending the convention of their industry took advantage of the special day set aside by the management of the New York World's Fair to visit the many interesting exhibits on the fairgrounds on Macaroni-Noodle Day, June 28, 1939. An exhibit that few overlooked is the du Pont's "Wonder World of Chemistry." The manufacture of this valuable packaging material is explained by pictures and lectures and its many uses explained.



A lecturer tells just how cellophane is made, using a scale model of a casting machine to demonstrate the process. One of the girl attendants discusses the uses of the material and holds aloft sample packages on which it is employed. Food products are well represented. In the accompanying cut, the girl is shown displaying macaroni packages.

"Since the first day of the New York World's Fair, 13 per cent of the total gate visited du Pont's exhibit," says Mr. H. B. Putney, merchandising manager of the firm. "A little simple arithmetic will convince you of the impressive crowd that has been handled to date."

**C. B. Schmidt Cools Off in the Fair's Igloo**

During his tour of the "World of Tomorrow," C. B. Schmidt, an executive of the Crescents Macaroni & Cracker Co., Davenport, Iowa, spent a good deal of his time in the Carrier Igloo, where George S. Kent, director of the exhibit, personally conducted him behind the scenes of modern air conditioning.

Mr. Schmidt revealed he is extremely interested in air conditioning and that he has been the proud owner of a Carrier installation since 1918. At that time, a young engineer by the name of R. T. Tree, who is now Carrier District Manager in the New York area, installed an air conditioning unit in his plant.

According to M. Schmidt, air conditioning has stepped up production from 30 barrels of dried macaroni a day to 135 barrels.

The Carrier exhibit at the World's Fair is a gigantic Igloo with "snow" incrustated walls. "Northern Lights" play from the Igloo's ceiling, providing a magnificent spectacle.

**Canadian Durum Research Specialist Goes to Fargo**

L. D. Sibbitt, who has been a member of the staff of the grain research laboratory of the Board of Grain Commissioners, Winnipeg, Canada, for the past nine years, has been appointed assistant cereal technologist, North Dakota Experimental Station. Mr. Sibbitt took over his new duties as assistant to Dr. R. H. Harris at Fargo about July 15. During the past nine months Mr. Sibbitt has been acting experimental miller for the grain commissioners' research laboratory. Prior to this work he was engaged, under the direction of Dr. W. F. Geddes, former chief chemist of the laboratory but now with the University of Minnesota, in spring and durum wheat research.

**A MATTER OF VALUE**

Of necessity, a good die, responsibly and unconditionally guaranteed, must needs be priced at just so much. It cannot be sold for less. Responsible macaroni manufacturers, keen and efficient in the management of their business, realize this and profit by purchasing their dies and repair work from:

**F. MALDARI & BROS., INC.**

178-180 Grand Street



New York, New York

TRADE MARK

"Makers of Macaroni Dies Since 1903—With Management Continuously Retained in Same Family"

**Smaller World Wheat Crop in Prospect**

**Spread Between Domestic and British Prices Expected to Widen**

The Bureau of Agricultural Economics sees prospects of a smaller world crop of wheat this year compared with last. Basis is the acreage reduction in the United States, and indications of smaller yields per acre in Europe. Increases are expected in Canada and North Africa.

The Bureau says that estimates of area and condition reported to date indicate that production of wheat in the Northern Hemisphere this year may be about 500,000,000 bushels less than the crop of last year. (Figures are exclusive of Soviet Russia and China.) Production in the Northern Hemisphere totaled 3,982,000,000 bushels last year—an all-time high record.

In the Southern Hemisphere, production may be about 75,000,000 bushels smaller than last year, "if growing conditions are about average for the remainder of the season. . . . Accordingly, world production may be expected to total close to 600,000,000 bushels below the 1938 harvest," the Bureau added. The 1938 world crop was 4,555,000,000 bushels.

To the production this year must be added the carry-over of wheat on July 1. The world carry-over on July 1, will "about double" the 1938 figure, the Bureau said. The carry-over on

July 1, 1938, was about 600,000,000 bushels. Of the total carry-over this July 1, it is expected that about 54 per cent will be had by the 4 major exporting countries, about as follows: United States, 22 per cent; Argentina, 17 per cent; Canada, 11 per cent; Australia, 4 per cent.

Domestic prices of wheat have been continuously above world prices since last December. The Bureau said that "the spread of domestic wheat prices above British wheat prices for the 1939 crop is average wider than for the 1938 crop, as a result of smaller prospective domestic wheat supplies, the higher Federal loan rate on wheat, and the continuation of the export-aid program."

The July 1 carry-over of wheat in the United States was estimated by the Bureau at about 265,000,000 bushels. Of this total, about 200,000,000 bushels will be hard red winter and hard red spring wheats, it was stated.

**Mill Increases Capacity**

With the addition of a new 400-barrel unit to its durum mill at Rush City, Minn., the Amber Milling Company of Minneapolis, Minn., now operates a mill with a capacity of nearly 2,000 barrels daily. It will be in a better position than ever to take care of orders for mixed cars of semolina and durum flour.

John F. Diefenbach is president of the milling firm and E. J. Thomas is vice president.

**July Flour Production Shows Sizable Increase**

Mills which represent about 64% of the total flour production of the United States reported to *The Northwestern Miller* that they produced, in aggregate, 5,667,539 bbls of flour in July, compared with 5,588,878 the previous month, 5,878,087 the same month last year, 5,531,569 in July, 1937, and 6,220,708 three years ago.

Although output of major spring wheat mills of the Northwest changed little during the month and southwestern mills gained over 21,590 bbls, Buffalo mills slipped back about 23,325 bbls. This was more than offset, however, by large gains made by mills in Ohio, Indiana and Michigan, including those at Toledo, which reported almost a 4,000-bbl increase. More than a 45,000-bbl gain was registered by mills of Illinois and eastern Missouri, including Chicago and St. Louis, but Pacific Coast production dropped back by more than 21,000 bbls.

Details on the month's production, by sections, is given in the following table:

	TOTAL MONTHLY FLOUR PRODUCTION				
	July, 1939	Previous month	1938	July, 1937	1936
Northwest	1,151,745	1,150,578	1,229,986	1,079,094	1,568,171
Southwest	2,052,102	2,030,510	2,177,571	2,421,815	2,238,423
Buffalo	824,297	847,621	851,922	827,714	931,902
Central West—Eastern Div.	471,662	412,020	422,059	270,095	340,091
Western Division	301,685	256,447	297,924	248,809	311,661
Southeast	127,379	131,960	401,101	325,222	366,124
Pacific Coast	738,669	759,742	406,524	349,220	464,336
Totals	5,667,539	5,588,878	5,787,087	5,531,569	6,220,708

**Appointed Plant Manager**

W. E. Roys, who for a number of years has been employed as an executive in the production department of The Foulds Milling Company's plant in Libertyville, Illinois, was recently appointed plant manager to succeed G. G. Hoskins, who resigned in June. Robert B. Brown will represent the firm in the National Macaroni Manufacturers Association.

**National Cereal Products Laboratories**

Benjamin R. Jacobs, Director  
Consulting and analytical chemist, specializing in all matters involving the examination, production and labeling of Macaroni and Noodle Products.

Laboratory—No. 30 Front St., Brooklyn, N. Y.  
Offices—No. 2 Grace Court, Brooklyn, N. Y.  
No. 2026 Eye St. N.W., Washington, D. C.  
Brooklyn 'Phones Washington, D. C. 'Phones  
CUMberland 6-2549 REpublic 3051  
TRiangle 5-8284 ADams 8035

**"CHEESE"**

The manufacture and distribution of Italian type of cheese is our business. GRATED CHEESE is our specialty.

Are you using, or planning to use, grated cheese in one way or another in your products? If you are, you owe it to yourself to write to our headquarters. We may have information which would interest you.

Quality and price will meet your requirements.

STELLA CHEESE CO.  
651 West Randolph St. Chicago, Ill.

**AVAILABLE AN AGGRESSIVE EXECUTIVE**

Capable of Assuming Full Management of Macaroni and Noodle Plant.

Broad Experience in Sales and Purchasing and in all Phases of Macaroni Operations.

Thorough Knowledge of all Macaroni Outlets on Eastern Seacoast. Married. Will Go Anywhere.

For Further Information or Personal Interview, Address Box 335, Macaroni Journal, Braidwood, Illinois.

— Macaroni Boxes of Wood Our Specialty —  
**KANSAS CITY SHOOK & MANUFACTURING CO.**  
Wilson, Arkansas  
Sales Agent—A. R. Shearon, Marked Tree, Arkansas

**The MACARONI JOURNAL**

Successor to the Old Journal—Founded by Fred Becker of Cleveland, Ohio, in 1903

Trade Mark Registered U. S. Patent Office  
Founded in 1903

A Publication to Advance the American Macaroni Industry

Published Monthly by the National Macaroni Manufacturers Association as its Official Organ  
Edited by the Secretary-Treasurer, P. O. Drawer No. 1, Braidwood, Ill.

**PUBLICATION COMMITTEE**

J. H. Diamond.....President  
P. H. Winebrener.....Advisor  
M. J. Donna.....Editor and General Manager

**SUBSCRIPTION RATES**

United States and Canada.....\$1.50 per year in advance  
Foreign Countries.....\$3.00 per year, in advance  
Single Copies.....15 Cents  
Back Copies.....25 Cents

**SPECIAL NOTICE**

**COMMUNICATIONS**—The Editor solicits news and articles of interest to the Macaroni Industry. All matters intended for publication must reach the Editorial Office, Braidwood, Ill., no later than Fifth Day of Month.

**THE MACARONI JOURNAL** assumes no responsibility for views or opinions expressed by contributors, and will not knowingly advertise irresponsible or untrustworthy concerns.

The publishers of **THE MACARONI JOURNAL** reserve the right to reject any matter furnished either for the advertising or reading columns.

**REMITTANCES**—Make all checks or drafts payable to the order of the National Macaroni Manufacturers Association.

**ADVERTISING RATES**

Display Advertising.....Rates on Application  
Want Ads.....50 Cents Per Line

Vol. XXI AUGUST 15, 1939 No. 4

**Proud of Home Firm**

The citizens of Lake Charles, Louisiana, are proud of the modern macaroni factory that operates in their home city and of the "French Maid" brand manufactured therein, according to a recent issue of the *American Press* of that city.

"Of much interest to young and old alike, are the modern processes used by the Calcasieu Macaroni Company, one of Lake Charles' newest industries, in making the popular brand of spaghetti and macaroni known as French Maid.

In the spotless and sanitary factory in this city under the direction of A. N. Natali, president of the firm, French Maid products are manufactured for wholesale distribution in all of Southwest Louisiana and eastern part of Texas.

All families in Lake Charles and the surrounding territory are invited by Mr. Natali to come down to the

plant of the Calcasieu Macaroni Company, 706 Railroad Avenue, and see the interesting way in which the famous French Maid products are made."

**Receiver Sells Noodle Assets**

Sale of Blue Ribbon Company Is Confirmed by Judge McDonald

Edward L. Lewith, receiver of Blue Ribbon Noodle Company, Incorporated, South Main Street, on May 19, 1939, sold the assets of the firm and the 'sale was confirmed in an order signed by Judge Michael F. McDonald.

The business was sold to Attorney Herbert M. Ball for \$6,500 in cash, with the provision the sale be subject to a lien of the Clermont Machine Company amounting to \$4,496.19.

Attorney Ball, who appeared at a preliminary hearing in the courthouse, said: "I cannot disclose the names of the persons I represent at this time."

The case, started as an equity suit, went before the Luzerne County Court during March term under the heading Anthony Balanis, et al, vs. Blue Ribbon Noodle Company, Inc.

Balanis and others are former employees of the company who started the suit to collect back wages. They asked for the appointment of the receiver.

**Packaging Institute to Hold Convention**

The first annual meeting of Packaging Institute, Inc., will be held on October 12-13, at the Edgewater Beach Hotel, Chicago, according to decision of the Board of Directors, meeting in New York on June 22.

Announcement was also made of the formation of a Packaging Supplies Division, as the third division of the Institute, which already has Packaging Production and Packaging Machinery Divisions, comprising the former members of the Production Managers Association and the Packaging Machinery Manufacturers Institute.

The establishment of the new Supplies Division is in line with the expressed purposes of the Institute to "provide opportunity for the machinery manufacturer, production man and the supplier of the integral parts of packages to discuss and study the im-

**BUSINESS CARDS**

**CARTONS**  
QUALITY AND SERVICE  
GIVE US A TRIAL

**NATIONAL CARTON CO.**  
JOLIET, ILLINOIS

**MERCANTILE COLLECTIONS**

OFFICIAL REPRESENTATIVES FOR  
N. M. M. A.

**WRITE—**

For Bulletins of Claims Placed by the Industry.  
For Pad of Service Forms and Information about our Procedures.

**CREDITORS SERVICE TRUST CO.**  
Tyler Building  
LOUISVILLE KENTUCKY

**CLASSIFIED ADVERTISEMENT**

**WANTED**—One used vertical press 13½" or approximate size; one used horizontal press for short cuts; one kneader; also dies and other used equipment. All in good condition. Address PTO, c/o Macaroni Journal, Braidwood, Illinois.

There are two hundred WHOLESALE GROCERS in the British Isles. Can they sell your products? Complete list sent you for \$7.50. R. C. Taylor, 331 Arch St., Philadelphia, Penn.

provement, standardization, techniques and methods of packaging, and to coordinate their efforts."

Firms engaged in manufacturing, importing or marketing supplies used in connection with packaged goods and packaging machinery are eligible to membership in the Supplies Division.

An industry program, to be submitted to the annual meeting in October, was presented for discussion at directors' meeting by George R. Webber, Chairman of the Program Committee. Among current Institute activities is issuance of a bulletin providing for inter-industry exchange of technical information.

William M. Bristol, Jr., Bristol-Myers Co., is President of the Institute.

**"Quality Insurance" Is the Best Policy Don't Take Chances—You Can Depend On**

A /A No. 1 SEMOLINA  
FANCY DURUM PATENT FLOUR  
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**CAPITAL FLOUR MILLS  
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1561 Hudson Blvd., Jersey City, N. J.

*Renowned Manufacturers*

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**MACARONI—NOODLE DRYERS**

**ONLY!**

*The Only Firm Specializing In Alimentary Paste Dryers*

**THE ONLY SYSTEM KNOWN TO BE SPACE—TIME—LABOR SAVING  
AND GUARANTEED UNDER EVERY CLIMATIC CONDITION**

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We can help you solve your problem. Consult us without obligation.

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<p><b>OUR PURPOSE:</b> EDUCATE ELEVATE</p> <hr/> <p>ORGANIZE HARMONIZE</p>	<p><b>OUR OWN PAGE</b> National Macaroni Manufacturers Association Local and Sectional Macaroni Clubs</p>	<p><b>OUR MOTTO:</b> First-- INDUSTRY</p> <hr/> <p>Then-- MANUFACTURER</p>
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E. Ronzoni, Jr., Ronzoni Macaroni Co., Inc., Long Island City, N. Y.	Frank A. Zunino, The Atlantic Macaroni Co., Inc., Long Island City, N. Y.

## President and Secretary Conference

*Association Policies Discussed, Activities Planned and  
Committee Appointments Completed*

To carry out the program approved by the members of the National Macaroni Manufacturers Association at the New York Convention and to put into effect the policies agreed upon at the several meetings of the Board of Directors, M. J. Donna, Secretary of the Association, journeyed to Lincoln, Nebraska, for a two-day conference with the organization's new president, J. H. Diamond of Lincoln, July 20 and 21, 1939.

Under the present plan of operations more and more responsibility will fall on the several standing committees of the Association whose personnel was selected as reported to the Association membership in Bulletin No. 3.

In making the Committee appointments listed, President Diamond observed:

- 1—That our Association is a voluntary organization of Friends of our industry, each obligated to do his part in helping the Association attain its objective—trade betterment.
- 2—That if each Member does his bit, the work of the President and his staff will be lighter; more will be interested in the organization's work and a better feeling prevail.
- 3—That he is now putting to the test the fellows who urged him to accept the presidency at the recent convention—ask them now to keep their pledges of support.
- 4—That he wants all Members to take a greater personal interest in the Association's activities—writing him frequently of their experiences, their thinking and suggestions.
- 5—That all Members urge their non-member manufacturers to "forget the past" and to "have hope in the future"—to volunteer their application for membership in answer to invitations issued by the President, the Secretary and Membership Committee.

To assist him in carrying on the work of the Association, President Diamond has named the following Association and Special Committees for the 1939-1940 term:

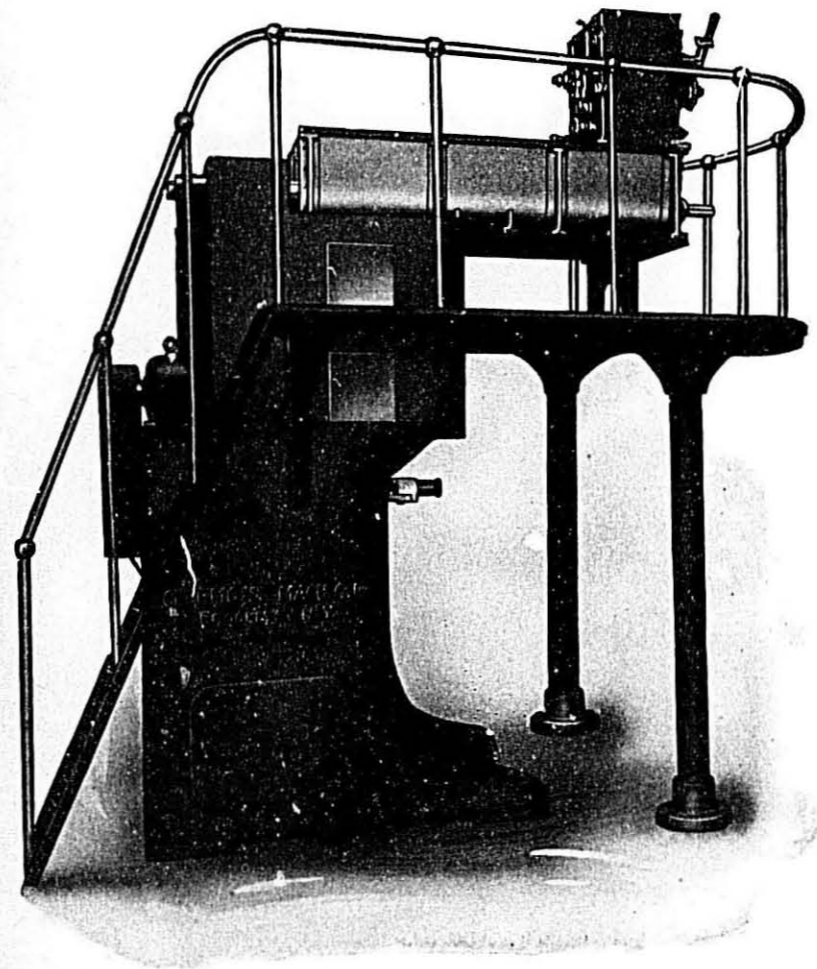
<b>EXECUTIVE COMMITTEE</b>			<b>STANDARDS COMMITTEE</b>		
J. H. Diamond (ex-officio)	Gooel Food Products Co.	Lincoln	P. R. Winebrener (Chmn.)	Krumm Macaroni, Inc.	Philadelphia
C. B. Schmidt (Chmn.)	Crescent Mac. & Cr. Co.	Davenport	John P. Zerega, Jr.	A. Zerega's Sons, Inc.	Brooklyn
F. Traficanti	Traficanti Bros.	Chicago	Samuel Gioia	Gioia Macaroni Co.	Rochester
L. S. Vagnino	Faust Macaroni Co.	St. Louis	L. S. Vagnino	Faust Mac. Co.	St. Louis
F. A. Zunino	The Atlantic Mac. Co.	Long Is. City	L. M. Skinner	Skinner Mfg. Co.	Omaha
<b>FINANCE COMMITTEE</b>			<b>MEMBERSHIP COMMITTEE</b>		
C. W. Wolfe (Chmn.)	The Mags Co.	Harrisburg	A. Irving Grass (Chmn.)	I. J. Grass Noodle Co.	Chicago
Stefano La Rosa	V. La Rosa & Sons	Brooklyn	G. D. Del Rossi	G. D. Del Rossi Co.	Providence
H. D. Rossi	Peter Rossi & Sons	Braidwood	Samuel Arena	V. Arena & Sons	Norristown
Henry Mueller	C. F. Mueller Co.	Jersey City	Albert S. Weiss	Weiss Noodle Co.	Cleveland
			Thomas Cuneo	Mid-South Macaroni Co.	Memphis
			Albert Ravarino	Mound City Mac. Co.	St. Louis
			S. E. Mountain	Fontana Food Prod. Co.	S. San Francisco
<b>STATISTICS COMMITTEE</b>			<b>EDUCATION AND PUBLICITY COMMITTEE</b>		
P. J. Viviano (Chmn.)	Kentucky Macaroni Co.	Louisville	Frank Traficanti (Chmn.)	Traficanti Bros.	Chicago
R. B. Brown	Foulds Milling Co.	Libertyville	L. S. Vagnino	Faust Macaroni Co.	St. Louis
B. A. Klein	F. L. Klein Noodle Co.	Chicago	L. M. Skinner	Skinner Mfg. Co.	Omaha
<b>LABOR AND WELFARE COMMITTEE</b>			<b>FLOUR AND SEMOLINA COMMITTEE (Special)</b>		
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