



A MARKET INVESTIGATION
FOR A
NEW CONFECTIONERY PRODUCT

By

Constantine S. Dadakis

and

Edwin J. Geittmann

Department of Business and Engineering
Administration

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Technology Dormitories

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Mr. J. C. MacKinnon

Acting Secretary of the Faculty

Massachusetts Institute of Technology

Dear Sir:

In accordance with the requirements for graduation, we herewith submit a thesis entitled "A Market Investigation for a New Confectionery Product."

We wish to take this opportunity to express our appreciation of the valuable advice and assistance given us by Mr. William DeMaris of the New England Confectionery Company, Mr. John Gore of the Beech Nut Packing Company, Dr. Samuel C. Prescott of Technology, Professor Robert F. Elder, and Professor Fairfield E. Raymond, the latter two of whom acted as thesis advisors, in the conduct of this thesis.

Respectfully yours,

Constantine S. Dadakis

Edwin J. Geittmann

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T A B L E O F C O N T E N T S

	Page
<u>TITLE PAGE</u>	1
<u>LETTER OF TRANSMITTAL</u>	2
<u>TABLE OF CONTENTS</u>	3
<u>INTRODUCTION</u>	5
STATEMENT OF THE PROBLEM	6
The Issues	9
Scope and Limitations	10
SUMMARY OF THE INVESTIGATION	11
CONCLUSIONS	17
RECOMMENDATIONS	20
<u>BODY OF THE REPORT</u>	21
RESUME OF PRECEDING EVENTS	22
Similar Products at Present	22
Similar Products in the Past	24
METHOD OF ATTACK AND RESULTS	28
Can the Product be Made	28
Will the Public Buy the Product	31
Copy of the Questionnaire	32
Questionnaire Replies by Sources	35
General Tabulation of Questionnaires	37
Analysis of Questionnaire Results	38
Comments in the Questionnaires	52
The Antiseptic Idea	52
Flavor	52

	Page
Comments in the Questionnaires (Cont'd.)	
Convenience of the Product	53
Packaging	53
Other Comment	53
Retail Distribution of the Product	55
Questions and Answers of Retailers	55
<u>APPENDIX</u>	58
CO-OPERATING COMPANIES AND INDIVIDUALS	59
BIBLIOGRAPHY	60
INTERVIEWS WITH MANUFACTURERS	61
Mr. Horwitz, Confectionery Jobber	62
Fleer Gum Company, Salesman	63
Mr. DeMaris, New Eng. Confectionery Co.	64
Mr. Livingstone, National Chicle Co.	65
Mr. Resch, Goudy Gum Company	66
Mr. Gore, Beech Nut Packing Company	67
Dr. Prescott, Technology	68
QUESTIONNAIRE RETURNS BY SOURCES	69
Ginn and Co., Restaurant, Houghton and Dutton, M.I.T. Dormitories, Boston Uni- versity, M.I.T. Service Staff, Y.M.C.A., Hood Rubber Company, New Eng. Conf. Co.	70-79
INTERVIEWS WITH RETAILERS	80
CORRESPONDENCE WITH NAT'L. ASS'N. GUM MFRS.	81-82
BULLETIN ON GUM, BUREAU OF FOREIGN AND DOMES- TIC COMMERCE	83

I N T R O D U C T I O N

Statement of the Problem

The past decade has witnessed the emergence of a popular new product in the American market. The use of mouthwash has been forced upon the public by dint of high pressure advertising. In fact so powerful and compelling has this advertising been that mouthwash has become a habit with the American people almost as set and inflexible as the use of toothpaste.

It is well known that the market for mouthwash has been exceedingly profitable. The Lambert Pharmaceutical Company, which pioneered the market, still holds the major portion. Other companies have tried again and again to break in but in practically all cases they have either failed completely or met with only mediocre success. Practically all of the failures were due, among other things, to insufficient advertising. The few competitors now in the field are also handicapped by their lack of advertising ability. But more than that they seem to have no additional appeal, no degree of uniqueness so to say, with which to attract customers to their particular brands.

On broad analysis mouthwash as it is now sold has two chief flaws:

1. It is expensive

2. It is inconvenient

There is a third, namely, that its antiseptic benefits are doubtful. But when it is remembered that most people use mouthwash for purely psychological reasons (Refreshing sensation, sweetening the mouth, guarding against bad breath, etc.) rather than for its antiseptic value, this third difficulty becomes less significant.

If the first two handicaps, expense and inconvenience, could be removed, the product eliminating them would seem to have a wider potential market.



But now let us turn to another very profitable item on the consumer market-- chewing gum. According to statistics of the Bureau of Commerce the per capita consumption of chewing gum in this country in 1931 was 89 standard sticks. In 1929 it was as high as 109. The total value of the gum consumed in 1931 was \$94,273,000, and in 1929 \$114,020,000.

It is evident from these figures that the American public has also extensively adopted the habit of chewing gum. But just as it has been exceedingly difficult for new companies to break into the mouthwash field, so has it been difficult for new companies to enter the chewing gum market. The reasons in each case are practically the same: there having been no new appeals or improvements to offer the public inducement for changing from one brand to another. Gum, with one exception, is sold on the basis of flavor and all

newcomers have adopted this same main appeal. Without tremendous advertising and promotional appropriations such newcomers were in grave danger of failure.

The one exception is Dentyne, a product of the American Chicle Company. Although Dentyne is sold in many instances on flavor (It has a pleasant cinnamon taste) the main appeal is: "It keeps the teeth white." All advertising has stressed this point, and the product has been quite successful.⁺

It would seem therefore that one of the best ways of breaking into the profitable chewing gum field would be to introduce a product with a new and different appeal, one offering the public an inducement to change to the new brand.

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There we have the complete picture: two profitable markets already developed to the point where the products have become habits with the vast majority of the public. One of the products is expensive, and the other very inexpensive. One is rather inconvenient to use, and the other is so convenient that a large group of people use it almost constantly. In both cases there is opportunity for a new product

⁺The chewing gum industry guards its statistics very closely. Our authority for the statement that Dentyne is successful is based on the word of competitors and wholesalers. Figures on national sales and consumption were obtained from the 1933 publication of the Foodstuffs Division, Bureau of foreign and domestic commerce, Washington, D.C. Although exports to foreign countries were available, U.S. sales figures were not broken down by states or territories.

with additional appeal to break into the market.

The answer, obviously, is to combine the two. If a satisfactory mouthwash-chewing gum could be developed it would at once eliminate the expense and inconvenience of ordinary mouthwash. It could be sold at five cents a package. It could be used practically anywhere and could be carried in ones pocket or handbag. At the same time it would be a confection with a brand new appeal. It would be a chewing gum, which in addition to its ordinary qualities, would give the mouth a clean, antiseptic, refreshing sensation.

This thesis seeks to investigate the development and market possibilities of such a mouthwash-chewing gum. The investigation divides itself into two parts:

1. Can such a product be made?
2. Will the public buy it when it is made?

Both of these questions will of necessity be treated in a theoretical manner. That is, the investigation is limited by the fact that samples of the product itself cannot be presented either as evidence that it can be made or as a means of gauging the public's acceptance of it by actual market tests.

The thesis will deal with the first point by questioning authorities on whether or not, in their opinion, a satisfactory product can be developed and manufactured. Then on the basis of their replies it will seek to determine the consumer's reaction to the idea, assuming that the product could be made as the research and production authorities say.

The scope of the thesis will be limited to those two main points. It will not concern itself with the manufacturing or distribution problems to be encountered in actually putting out the product. Nor will it seek to accurately estimate the potential market, or manufacturing costs. It will offer at the most only an indication of the consumers' attitude toward the idea, and the opinion of authorities on the possibility of manufacturing it to sell for five cents a package retail.

Summary of the Investigation

The large market for mouthwash antiseptics created by the flood of high pressure advertising in the last decade, and the popularity and consumption of chewing gum among the American people (89 standard sticks per capita in 1930) furnished the idea which is the subject of this thesis. The idea is to combine the two products into a chewing gum which would have the valuable properties and affect of a good mouthwash and at the same time the desirable characteristics of a chewing gum.

The investigation of the possibilities of such a product divides into two parts:

- a) Can the product be made?
- b) Will the public buy it?

The answer to the first question was sought by means of interviews with authorities on chewing gums. Three manufacturers were interviewed. All three said that at one time or another they had considered such a product. One had given up the idea after offering to co-operate with a manufacturer of popular antiseptics in developing and marketing the product and having been refused. Another has gone so far as to

make experimental products with view toward interesting the company to market it, but would not reveal his plans for the future. A third abandoned the idea as not being a suitable product to add to his line. These manufacturers advised that the product should be made a confection rather than a medicated one because the market for a confectionery product is much wider. They also pointed out the importance of flavor in the product, and the fact that peppermints and cinnamons are now the most popular.

In order to see if the development problems could be solved the writers interviewed Dr. S.C. Prescott of the Massachusetts Institute of Technology who has done consulting work for a manufacturer of chewing gums and like products. Professor Prescott stated that in his opinion a chewing gum which had the psychological affects of a good mouthwash could be made. Furthermore he thought it would not be difficult to incorporate into the product as good an antiseptic as some of the popular mouthwashes now on the market offer. He pointed out that the antiseptic value of such a product would be slight and that its main appeals would have to be based on its psychological affects such as: "Guard against bad breath, Give mouth a refreshing feeling, etc."

On the basis of this interview the writers concluded that a satisfactory mouthwash-chewing gum could be made, that it would be a confectionery product, and that it would simulate the affects of a popular antiseptic.

Information on the second question, "Would the public buy the product," was obtained by means of a questionnaire distributed to a representative cross-section of the population in and around Boston. The questionnaire sought to determine the following information:

1. The extent of the individual's use of mouthwash and chewing gum.
2. The reasons for the use or non-use of those products.
3. The preference in regard to brands of mouthwash.
4. Opinions on the proposed new product.
5. Whether or not the person thought he would use the new product.
6. Any comments or suggestions the individual had to make concerning it.
7. Ages and sex for purposes of classification.

The questionnaire was distributed to many different classes of people in effort to secure a representative result. 2080 Copies were distributed and 813 of the replies were considered properly filled out for the purposes of the investigation. A complete tabulation of places where questionnaires were placed and the results in each case is presented in the body of this report.

The returns of the survey were tabulated according to the key question "Do you think you would use the product?"

A sharp difference of opinion was found between the students on one hand and the average run of people on the other. Whereas 50% of the average people stated they would buy the product, only 25% of the student group answered thus, while 50% answered "No." Since the well educated form only a small proportion of the total population it was decided not to include the answers of the college groups in drawing conclusions because of the disproportionate influence they would have on the results. The average group includes executives, office workers, factory workers, and others so it was felt that this was as representative a group as any. This latter group was therefore used as a basis for drawing conclusions.

Of the persons who answered whether or not they would buy the product 49% answered "Yes," 24% said "No," and 27% stated they didn't know. In other words one out of every two people in the conditions and environment surrounding this group would use the product. About one quarter do not know. About one quarter state definitely that they will not use it.

It was further found that females were more favorably disposed toward the idea than men, and those in the age group 18 - 25 were more favorable than those over 25.

A tabulation to find out the acceptance of present users of mouthwash and chewing gum yielded the following results:

"58% Of those who use gum indicate that they would buy the product. 52% Of those who use mouthwash will buy the product. 61% Of those who use both mouthwash and gum state they will buy the product."

More than half of the people who use mouthwash stated they did so for "psychological" reasons. These reasons were "Guard against bad breath, Give mouth a refreshing feeling, etc." One quarter stated they used mouthwash for its antiseptic value, and one quarter replied that they used it for both reasons.

Acceptance of the new product by those who use mouthwash for "psychological" reasons was considerably higher than that of those using it for antiseptic reasons. It was found that frequent users of mouthwash were slightly more receptive to the new product than infrequent users. Frequent users of gum were by far the most receptive group.

Those who use the popular brands of mouthwash reacted much more favorably than those who use little known or home-made preparations. Pepsodent, which is used by about 20% of the people, showed the greatest percentage acceptance. Lavoris was second and Listerine third, although Listerine is used by practically half the people.

It was found that about 40% of those who use gum do so because they enjoy the flavor. This indicated the

importance of flavor in the new confection. About one third gave as their reasons for using gum the appeals of the popular mouthwash advertisements, the reasons which are classed as "psychological" in this analysis. 17% Checked the reason "Work off nervous energy."

A small survey of retailers indicated that they were in general receptive to the idea, and would stock the product on some basis or other.

The results of the general survey definitely indicate that a sizeable potential market for the product exists. It is recommended that research be undertaken to develop the product, that samples be made up, and that these samples be used for further consumer investigations. Should these surveys prove promising, the product should be put on the market in an experimental way to precede its actual introduction in the market.

CONCLUSIONS

1. A satisfactory mouthwash-chewing gum can be developed and manufactured.

- a) A chewing gum can be made which has the psychological, stimulating, and refreshing affects of a mouthwash.
- b) This gum can be made to have antiseptic properties as good as most of the popular mouthwashes.
- c) It would be sold as a confection rather than as a medicated product.
- d) A pleasant taste and flavor can be imparted to it.

2. There is evidence of a sizeable potential market for a mouthwash-chewing gum.

- a) One out of every two people in this survey said that they thought they would use the product. One quarter said they didn't know. One quarter said they would not use it.
- b) 58% Of these who use gum would buy the product, and 52% of those who use mouthwash would buy it.
- c) Women are more favorable to the new product than men.
- d) Persons between the ages of 18 and 25 are more favorable to the product than those over 25.
- e) Persons of higher education are less favorable

toward the product than the average run of people.

3. The appeals for the new product should be based on its simulation of the psychological affects of a good mouthwash.

("Psychological" appeals of mouthwash include: "Guard against bad breath, Remove bad taste from mouth, Give mouth a refreshing feeling, etc.")

- a) The product can be made to have the psychological affects of a mouthwash.
- b) More than half of the people who use mouthwash do so for psychological reasons.
- c) Those who use mouthwash for psychological reasons are more favorable toward the product than those who use it for antiseptic reasons.
- d) Acceptance of the new product is greater among the users of popular brands of mouthwash, which are the subject of most of the advertising on the popular appeals. Of the various brands Pepsodent users are most favorable to the idea.
- e) Over 30% of gum users give as their reasons "Guard against bad breath," and "Remove bad taste from mouth."

4. The product should be promoted in a manner designed to attract users of mouthwash and gum, rather than to try to develop a market among present non-users of these products.

- a) Whereas 52% of those who use mouthwash and 58% of those who use gum and 61% of those who use both would use the product, only 11% of those who use neither mouthwash or gum would buy the product.
- b) Frequent users of mouthwash are slightly more interested than infrequent users.
- c) Frequent users of chewing gum are more in favor of the product than infrequent users. 73% of frequent users of gum would buy the product, 51% of infrequent users would. Only 11% of non-users would buy it.

RECOMMENDATIONS

We believe this survey has shown that the development and sale of a mouthwash-chewing gum has possibilities which warrant further investigation. We therefore recommend:

1. That further consumer investigation be carried on in different sections of the country to verify these results.
2. That research be undertaken to develop the product and that samples of the product be used wherever possible in the consumer investigation.
3. That if the consumer investigation with samples shows promise, and the product is evidently satisfactory, the product be put on the market in an experimental way.

The investigation may be continued and the product put out by a manufacturer of mouthwash and allied products, by a manufacturer of chewing gum, or by a new company organized for the purpose with adequate funds.

B O D Y O F R E P O R T

Resume of Preceding Events

As far as this investigation was able to determine, a mouthwash-chewing gum of the type proposed in this thesis has never been put on the market. However the product has been considered in one form or another by manufacturers. Of three manufacturers who were interviewed, all three had at one time or another seriously considered the product. Because of the confidential nature of the information it is feasible to speak of these manufacturers only as A, B, and C. Their activities along these lines were as follows:

Manufacturer "A": A considered the idea several years ago and decided that the best way to produce the product was in co-operation with a mouthwash company. He wrote to the most prominent company in the field and suggested that he be allowed to incorporate their product into a chewing gum, on a mutually advantageous basis. After protracted correspondence the mouthwash manufacturer turned down the idea.⁺ Subsequently A also gave up the idea.

⁺ The writers could not obtain the correspondence or find out why the idea was not accepted.

Manufacturer "B": B thought of the idea and made a study of its possibilities about five years ago.⁺ He concluded at that time that the product would not be a good one to add to his line. Subsequently B developed a chewing gum containing milk of magnesia. He hopes to use as an appeal the fact that milk of magnesia counteracts mouth acidity, thereby helping to preserve the teeth. As yet this product has not been put on the market except in an experimental way.

Manufacturer "C": After seriously considering the idea C contacted one of the leading mouthwash companies and evidently convinced them that the idea had merit. A chewing gum was developed which imitated the taste of this mouthwash.⁺⁺ The product has not yet been put on the market and no information could be obtained as to when it would be, or if it would be.

Geographical difficulties made it impossible for the writers to interview any other manufacturers. However it is significant to note that at one time or another all three

⁺It was not possible to secure any of the results of this study. It did not however include any investigation of the consumers' reaction.

⁺⁺The writers were permitted to taste samples of the product. It had apparently been on hand for a considerable period.

had considered the product.

The fact that none has yet put such a product on the market is not indicative of the worth of the idea however, because there are probably particular reasons peculiar to each company which have kept them from exploiting this field. The manufacturers would not give out any information concerning these reasons. However it should be noticed that one has already gone so far as to manufacture the product experimentally. Another has already manufactured a similar one and is testing it on the market. The third, with limited resources, sought to secure the co-operation of a mouthwash company in the venture and was unsuccessful. From these activities it can be seen that a very deep interest in the idea has been shown by manufacturers.

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There are several similar products which shed some light on the possibilities of a mouthwash-chewing gum. They are:

Listerated Gum: A chewing gum which was manufactured and successfully sold from 1907 to 1925. Although the name suggested antiseptic qualities, actually the manufacturers did not exploit this appeal in their advertising. It was not claimed that the product would give the user any of the benefits of a mouthwash. Listerated Gum was a confectionery item with a "dormant antiseptic appeal." How much this latter contributed to its sale is impossible to tell. The writers made an effort

to contact a former official of the company without success. This much is known however: The company was very profitable from its inception, and in 1925 was bought out by The Wm. Wrigley Jr. Company which immediately took the product off the market. Company financial statements listed in Poor's and Moody's, although meagre, indicate the profitable nature of the enterprise:

	<u>Net Sales</u>	<u>Net Profit</u>
1917	\$522,059	\$ 51,177
1918	568,335	75,598
1919	775,478	155,152
1920-'22	Not Available	
1923	<u>(1st. 4 months)</u>	20,281
1924	Not Available	

Capitalization approximately \$500,000

1922 Plant capacity was doubled

The Listerated Gum Company was located at Newport, R.I. Its best known products were: "Listerated," "Lister-Mint," and "Lister-Spearmint" Gums. It is evident from the figures available that the company was definitely successful with these products.

Orasol: This product, a "mouthwash-tablet" only recently put on the market, uses the appeals of convenience and low price. Its advertising is very limited and makes no use of appeals to halitosis, after smoking, etc. Instead the advertising is

concentrated on sore throats, colds, and similar uses of a medical nature. There is no way of gauging the success of the product except by the fact that it is sold at all subway and news stands, bearing in mind that these outlets handle only fast moving items.

Dentyne: This is a cinnamon flavored chewing gum produced by the American Chicle Company, which advertises: "It makes the teeth white." The company does not further substantiate the claim and there is no indication that any agent is used which benefits the teeth in this respect. Nevertheless, the product is an example of a chewing gum with a definitely additional appeal. It has succeeded remarkably well, as witnessed by the attempts of competitors to immitate it, and the statements of wholesalers, retailers, salesmen, and others connected with the trade.

"X": Another product which because of its confidential nature we must call "X" is the previously mentioned gum containing milk of magnesia. It is claimed that the milk of magnesia content aids in preserving the teeth by counteracting mouth acidity. It has been put on the market only in an experimental fashion. Whether or not it will be put on the general market is at present unknown to the writers.

The notation of these products indicates that there might be an opportunity for the success of a mouthwash-gum. The mere attempt to cash in on mouthwash popularity by putting up the product in a convenient, inexpensive form has

evidently been successful (Orasol Tablets). The attempt to add another appeal to chewing gum (Dentyne) has also been successful. Further steps in this general direction are all embryonic and have not reached the market yet.

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All in all, the resume of preceding events indicates that not only have manufacturers carefully considered the idea but that products of a similar nature have been on the market and have enjoyed considerable success.

There is bound to be considerable activity below the surface in this field at present, as illustrated by the two manufacturers who have developed similar products which have not yet been put on the market. The extent of this activity cannot yet be estimated, but its existence points again to the probable intrinsic value of the idea of a mouthwash-chewing gum.

Method of Attack and Results

a) Can the product be made?

In order to discover whether or not such a product could be made the writers interviewed manufacturers and other authorities on the subject.

The several manufacturers interviewed were unanimous in advising that the product, in order to compete with popular chewing gums, would have to be as appealing to the taste as the others, notwithstanding the fact that it will be an antiseptic gum. Manufacturer "C", as was previously mentioned, has developed a gum which immitates the flavor of one popular mouthwash. Manufacturer "B" is testing on the market a very pleasingly flavored gum which contains milk of magnesia.

Under the pure food and drug laws a product must be classified as medicated or confectionery, since misuseage might result in injurious affects on the consumer. The products of both manufacturers "B" and "C" are classed as confectionery, because their contents are harmless to those using them. Examples of the medicated gums now on the market are the products containing laxatives and asperin.

The manufacturers pointed out that the available market would be much larger if the proposed mouthwash-chew-

ing gum were made a confectionery product. This would necessitate placing less stress on the antiseptic properties of the product. Accordingly the writers sought expert advice on the possibilities of developing a genuinely adequate product.

Dr. Samuel C. Prescott of the Massachusetts Institute of Technology, who has done research for a large gum manufacturer was interviewed. In his opinion a chewing gum having the affects of a good mouthwash can be made. Furthermore he thought it would not be difficult to incorporate into the product as good an antiseptic as some of the popular mouthwashes on the market now offer.

Dr. Prescott agreed that the product should be classed as a confection rather than as a medicated gum. As a confection the product would be an impulse item, and would appeal to a much larger market.

According to Dr. Prescott it would be easily possible to put into the gum certain compounds which would lend it all of the refreshing, stimulating, and pleasant qualities of a mouthwash. For this purpose a proper combination of the following has been suggested: Oil of eucalyptus, cinnamon, balsam tolu, and flavoring extract. The addition of a mild antiseptic would be a matter of chemical research.

No exaggerated claims would be advanced in regard to the germ destroying properties of the gum, but it would be featured as a "mouthwash-chewing gum." The natural mouth stimulation promoted by the action of chewing, together

with the mildly stimulating essential oils in the gum would produce a clean, refreshing sensation in the mouth. The advertising for the product could therefore be directed toward stressing the popular psychological appeals of popular mouthwashes.

The results of this part of the investigation are thus:

1. A satisfactory mouthwash chewing gum can be developed and manufactured.
2. The product should be featured as confectionery and not as medicated.
3. The appeal to the consumer should be based primarily on the psychological aspects of oral hygiene, such as "Give mouth a refreshing feeling," "Guard against bad breath," "Remove bad taste from mouth," etc.

b) Will the public buy this product?

The consumer reaction to the product was determined by means of a questionnaire which was distributed to a representative cross section of the population in and around Boston.⁺ The questionnaire sought to determine the following information:

1. The extent of the individual's use of mouthwash and chewing gum
2. The reasons for the use or non-use of the products
3. The preference in regard to brands of mouthwash
4. Opinions of the proposed new product
5. Whether or not the person thought he would use the new product
6. Any comments or suggestions the individual had to make concerning the new product
7. Ages and sex for purposes of classification

A copy of the questionnaire will be found on the following page.

It will be noticed that the questionnaire has been made as plain and clear as possible. Because it was thought that the average person would not think deeply enough to decide on the reasons why he uses these products the various possible answers were presented and all he had to do was indi-

⁺Greatest per capita gum consumption is found in the N.Y.-New England area. See Appendix, correspondence.

DISCOVERING The CONSUMER'S POINT OF VIEW



This questionnaire is meant to discover what the public actually thinks of a new product.

Your personal opinions and answers will be greatly appreciated. We hope that you will be willing to turn the page and 'cast your ballot' by checking off as many answers as you wish.

You will find that it will take less than 3 minutes of your time.

A THESIS SURVEY
BY STUDENTS OF THE
MASSACHUSETTS INSTITUTE OF TECHNOLOGY

Copy of Questionnaire Used
In Consumer Survey

How often do you use mouth wash?

- Several times daily
- Once a day
- Occasionally
- Very rarely
- Never

What brand do you prefer?

- Listerine
- Lavoris
- Pepsodent
- S.T. 37
- Other kind.....

If you do use mouth wash what are your chief reasons for doing so?

- Antiseptic value
- Guard against bad breath
- Remove bad taste from mouth
- Give mouth a refreshing feeling
- Habit
- Other reasons.....

If you do not use mouth wash what are your reasons?

- Never tried it
- Do not think it does any good
- Too expensive
- Too inconvenient
- Have no desire to use it
- Other reasons.....

How often do you chew gum?

- Daily
- Several times a week
- Few times a month
- Very rarely
- Never

If you do chew gum what are your chief reasons for doing so?

- Remove bad taste from mouth
- Work off nervous energy
- Guard against bad breath
- Enjoy flavor
- Habit
- Other reasons.....

If you do not chew gum please indicate your attitude toward it:

- No desire to
- Consider it a bad habit
- Do not like taste of it
- Other reasons.....

(Please turn over)

If a chewing gum which had the valuable properties and effect of a good mouth wash could be put on sale at five cents a package:—

1. What would be your opinion of such a product?

- Excellent
 Pretty good
 Fair
 No good
 Other comment.....

2. Do you think you would use it?

- Yes No Don't know

Have you any other comments to make on the product? For instance, we should like very much to know your thoughts in regard to its taste, usefulness, convenience, etc., etc.....

.....

.....

.....

For our purposes of classification will you kindly check the following:

- | Age | Sex |
|-----------------------------------|---------------------------------|
| <input type="checkbox"/> Under 18 | <input type="checkbox"/> Male |
| <input type="checkbox"/> 18 to 25 | |
| <input type="checkbox"/> Over 25 | <input type="checkbox"/> Female |

Thanks again for your co-operation

Copy of Questionnaire Used
In Consumer Survey

cate the answers which satisfied him. Space was provided for other answers which the person might write in himself.

The cover of the questionnaire was made to catch the eye, and awaken interest and curiosity. It was felt that a certain amount of interest had to be built up before presenting the main idea of the subject. The arrow was put in to appeal to a subconscious urge to make the reader want to turn the page.

The average time required for a number of individuals to fill out the questionnaire was found to be considerably less than three minutes, and so this fact was mentioned on the front cover to dispell any fears on the part of the persons being questioned as to the length of time it would take.

Some might question the validity of opinions and decisions made in such a short space of time. However when the circumstances under which a person makes the purchase of such an article are considered, this method of determining reaction is, we believe, justified. The purchaser of chewing gum does not spend much time deciding whether he should buy it. It is an impulse good, bought on the spur of the moment. Therefore in order to get the actual reaction of the consumer in the market it is necessary to determine his reaction on the spur of the moment. This questionnaire does just that.

The question on the back page, which describes the new product, is very short and to the point. No sales talk was included on convenience, economy, taste, etc. This

was because it was felt that the product should be presented in as simple and straight forward a manner as possible, in view of the fact that this presentation should be no different than the purchaser would find on the package of the product. The words "mouthwash-chewing gum" could easily appear on the package, and in smaller type, the remainder of the thought.

The key question to the entire questionnaire is, of course, "Do you think you would use it?" (The Product) Therefore all replies were first classified by this question. The returns, listed by sources, are shown on the following page:

ANSWERS BY SOURCES

Question: "Do You Think You Would Use the Product?"

	<u>Total</u>	<u>% Yes</u>	<u>% No</u>	<u>% Don't Know</u>
<u>Necco Plant: Both office and factory workers. Proportion of each unknown</u>	211	50.3	23.7	26.0
<u>Y.M.C.A.: General run of YMCA boarders; salesmen, office workers, clerks, students, etc..</u>	66	43.9	21.2	34.9
<u>M.I.T. Service Staff: Porters, janitors, mechanics, etc.</u>	25	52.0	32.0	16.0
<u>Ginn and Company: Office workers entirely</u>	26	42.0	35.0	23.0
<u>Houghton and Dutton: Department store employees, mostly sales-girls and salesmen</u>	118	51.7	26.3	22.0
<u>Boston University: A class of girl students in psychology. . .</u>	70	35.8	23.0	41.2
<u>M.I.T. Dormitories: Students of all classes living in the dormitories.</u>	116	21.5	51.8	26.7
<u>Hood Rubber Company: Office and factory workers in about even proportion</u>	127	52.0	17.3	30.7
<u>Lobster Claw Restaurant: About 10 waitresses and employees. Remainder medical students and professors, patrons of the restaurant. A few other patrons . .</u>	40	22.5	45.0	32.5
<u>Miscellaneous: Arrived either too late or in too small groups to classify separately</u>	14	50.0	28.6	21.4
	<u>Total</u>			
	813			

Note: Approximately 2080 questionnaires were distributed. A larger number than 813 were returned but only those who answered the key question: "Do you think you would use the product?" were classified in this breakdown.

Immediately this classification presents a striking difference between groups. The three cases where students or highly educated people were questioned showed a marked divergence from the others. These three groups were the M.I.T. Dormitories, the B.U. class, and the restaurant.

Therefore the writers decided to classify the replies into two general groups: The average group and the college group. The average group includes office and factory workers and executives, a more typical cross section of the population. The proportion of the population which is college trained is very small. Therefore beyond indicating that the product should be directed toward pleasing the average person and not the more highly educated, the results of the college group are not included in determining the conclusions.

The complete classification of answers by groups and questions is presented on the sheet following this page:

QUESTIONNAIRE RESULTS*

The Replies of 813 Persons

585 AVERAGE PERSONS

N. E. Confectionery Co., Factory & Office (211) Ginn & Co. Office (26)
 Hood Rubber Co., Factory & Office (127) Y. M. C.A. Residents (66)
 Houghton & Dutton Dept. Store Employees (118) M. I. T. Service Staff (25) Miscellaneous (14)

Do You Think You Would Use It? (The Product)	Total		Use Both Mouthwash And Gum		Use Gum But Do Not Use Mouthwash		Use Mouthwash But Do Not Use Gum		Never Use Gum Or Mouthwash		By Ages						By Sex				What is Your Opinion Of the Product?				How Often Do You Use Mouthwash?					What Are Your Chief Reasons For Using Mouthwash?			What Brand of Mouthwash Do You Prefer?				How Often Do You Use Chewing Gum?					What Are Your Chief Reasons For Using Gum?																										
			No.	%	No.	%	No.	%	No.	%	Under 18		18-25		Over 25		Male		Female		Excel- lent	Pretty Good	Fair	No Good	Several Times Daily	Once A Day	Occas- ionally	Very Rarely	Never	Anti- Septic	Psycho- logical	Both	Listerine	Lavoris	Pepsodent	Other	Daily	Several Times a Week	Few Times A Month	Very Rarely	Never	Remove Bad Taste	Work off Nervous Egg	Guard vs Bad Breath	Enjoy Flavor	Habit																						
											No.	%	No.	%	No.	%	No.	%	No.	%	No.	%	No.	%	No.	%	No.	%	No.	%	No.	%	No.	%	No.	%	No.	%	No.	%	No.	%	No.	%	No.	%	No.	%	No.	%	No.	%	No.	%	No.	%												
YES	286	49	261	61	16	36	12	13	2	11	3	43	87	57	208	47	109	41	167	56	218	66	10	0	58	53	101	50	89	56	24	45	16	29	59	45	152	55	43	59	112	50	46	56	57	60	39	39	38	70	76	77	68	65	97	45	13	11	50	63	41	56	40	75	108	58	27	69
NO	141	24	53	12	17	39	62	66	9	47	2	29	24	16	110	25	75	28	57	19	8	8	21	73	19	17	49	25	32	20	10	19	23	41	35	27	49	18	15	20	49	22	19	23	16	17	28	28	5	9	9	9	11	10	44	20	17	62	8	10	12	16	3	6	29	16	4	10
DON'T KNOW	158	27	116	27	11	25	20	21	8	42	2	29	42	27	121	28	83	31	72	25	20	52	64	10	32	39	51	25	38	24	19	36	17	30	37	28	77	27	15	20	64	28	17	21	22	23	34	34	11	21	14	14	26	25	77	35	31	27	22	27	20	27	10	19	49	26	8	21
Total	585		430		44		94		19		7		153		439		267		296		246	126	95	83	109		201		159		53		56		134		278		73		225		82		95		101		54		99		105		218		115		80		73		53		186		39	
			73%		8%		16%		3%		1%		26		73%		48%		52%		45%	23%	17%	15%	19%				27%		9%		10%		27%		58%		15%		45%		16%		19%		20%		9%		17%		18%		77%		19%		19%		17%		12%		43%		9%	

226 COLLEGE STUDENTS

Boston University Girls (70) Lobster Claw Restaurant (40)
 M. I. T. Students (116)

Do You Think You Would Use It? (The Product)	Total		Use Both Mouthwash And Gum		Use Gum But Do Not Use Mouthwash		Use Mouthwash But Do Not Use Gum		Never Use Gum Or Mouthwash		By Ages						By Sex				What is Your Opinion Of the Product?				How Often Do You Use Mouthwash?					What Are Your Chief Reasons For Using Mouthwash?			What Brand of Mouthwash Do You Prefer?***				How Often Do You Use Chewing Gum?					What Are Your Chief Reasons For Using Gum?																										
			No.	%	No.	%	No.	%	No.	%	Under 18		18-25		Over 25		Male		Female		Excel- lent	Pretty Good	Fair	No Good	Several Times Daily	Once A Day	Occas- ionally	Very Rarely	Never	Anti- Septic	Psycho- logical**	Both	Listerine	Lavoris	Pepsodent	Other	Daily	Several Times a Week	Few Times A Month	Very Rarely	Never	Remove Bad Taste	Work Off Nervous Egg	Guard vs Bad Breath	Enjoy Flavor	Habit																						
											No.	%	No.	%	No.	%	No.	%	No.	%	No.	%	No.	%	No.	%	No.	%	No.	%	No.	%	No.	%	No.	%	No.	%	No.	%	No.	%	No.	%	No.	%	No.	%	No.	%	No.	%	No.	%	No.	%	No.	%	No.	%								
YES	59	26	53	36	4	22	2	6	0	0	3	50	52	29	5	16	30	21	29	35	24	32	3	1	3	20	11	36	26	35	16	24	3	8	10	24	35	34	7	30	24	47	11	36	6	29	11	19	2	67	12	67	21	53	22	20	2	4	10	53	8	29	9	64	26	45	3	16
NO	94	42	39	27	10	56	25	76	16	89	3	50	65	37	17	55	73	52	18	22	3	5	24	42	3	20	10	32	25	33	26	39	30	75	10	45	30	29	6	26	10	20	11	36	7	33	19	33	1	33	2	11	3	8	45	41	43	80	3	16	10	36	2	14	2	3	13	69
DON'T KNOW	73	32	54	37	4	22	6	18	2	11	0	0	60	34	9	29	37	27	35	43	4	29	31	1	9	60	10	32	24	32	25	37	7	17	13	31	37	36	11	48	17	33	9	29	8	38	27	47	0	0	4	22	16	40	43	39	9	16	6	32	10	36	3	21	30	52	3	15
Total	226		146		18		33		18		6		177		31		140		82		31	66	58	44	15		31		75		67		40		42		102		23		51		31		21		57		3		18		40		110		54		19		28		14		58		19	
			68%		8%		15%		8%		3%		83%		14%		63%		37%		16%	34%	28%	22%	7%		14%		33%		29%		17%		25%		61%		14%		32%		19%		13%		36%		1%		8%		18%		49%		24%		14%		20%		10%		42%		14%	

* Some totals will not check. This is because a few persons did not answer their questionnaires completely.

** The classification "Psychological" includes the following answers: "Guard against bad breath", "Give mouth a refreshing feeling", "Remove bad taste from mouth", "Habit" and "Other reasons"

The number of persons under 18 years contacted was too small to draw conclusions from.

*** The brand "S.T. 37" because of its relatively small number of users was thrown into the classification "Other"

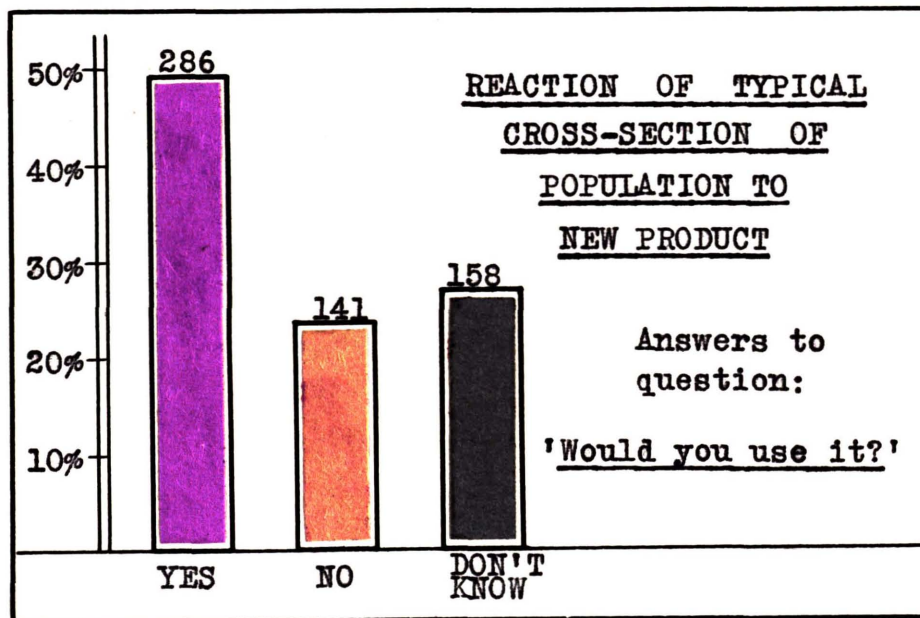
Now let us analyze the answers of the average group, which is typical of the population in this part of the country and, broadly, of the entire nation.

585 Persons answered the question "Do you think you would use the product?" The answers were:

Yes	286	49%
No	141	24%
Don't Know	158	27%

In other words:

One out of every two people in the conditions and environment surrounding this group would use the product. About one-quarter do not know. About one-quarter state definitely that they will not use it.



But it must be remembered that this group included also individuals who never use gum, those who never use mouthwash, and those who never use either gum or mouthwash. That is, it

is a composite, average group representing all types and attitudes. We can attack the problem from another point of view, and consider only those who do use both mouthwash and chewing gum. This group ought to offer the best potential market for the product. The first group has been broken down into four classifications:

	<u>%</u>	<u>No.</u>	<u>Yes</u>	<u>No</u>	<u>Don't Know</u>
Those who use both mouthwash and gum.....	73%	430	61%	12%	27%
Those who use mouthwash but not gum.....	16%	94	13%	66%	21%
Those who use gum but do not use mouthwash...	8%	44	36%	39%	25%
Those who never use mouthwash or gum.....	3%	19	11%	47%	42%

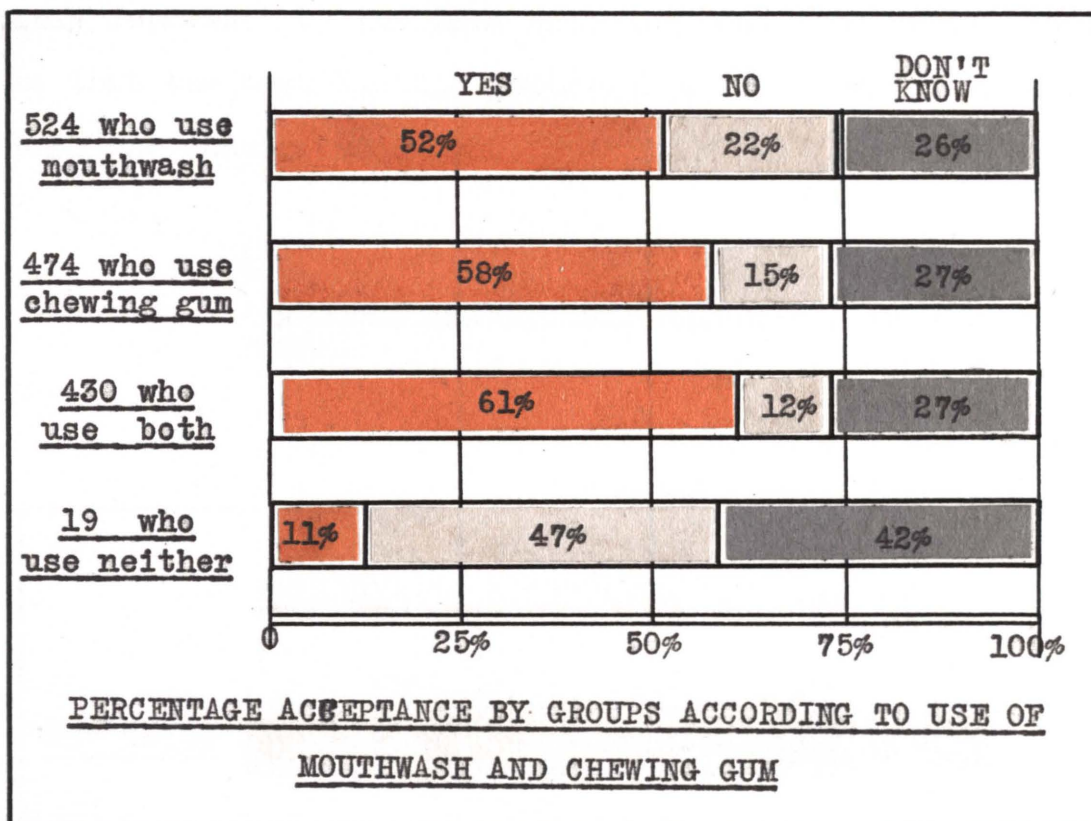
We see at once a rise in acceptance among those who do use both of these two products, which the proposed idea will combine. Those who use only one of them are less favorable. Those who do not use gum are definitely against the idea. Also those using neither do not like it. The large size of the first group indicates that it is by far the major part of the market for such a product.

By combining the first group with the second we can get the total number who use mouthwash. In a similar way we can get the total number who chew gum. We have:

Those who use mouthwash	<u>Total</u> 524	<u>Yes</u> 52%	<u>No</u> 22%	<u>Don't Know</u> 26%
Those who use chewing gum	474	58%	15%	27%

In other words:

58% Of those who use gum indicate that they would buy the product, and 52% of those who use mouthwash will buy the product. 61% Of those who use both mouthwash and gum will buy the product.

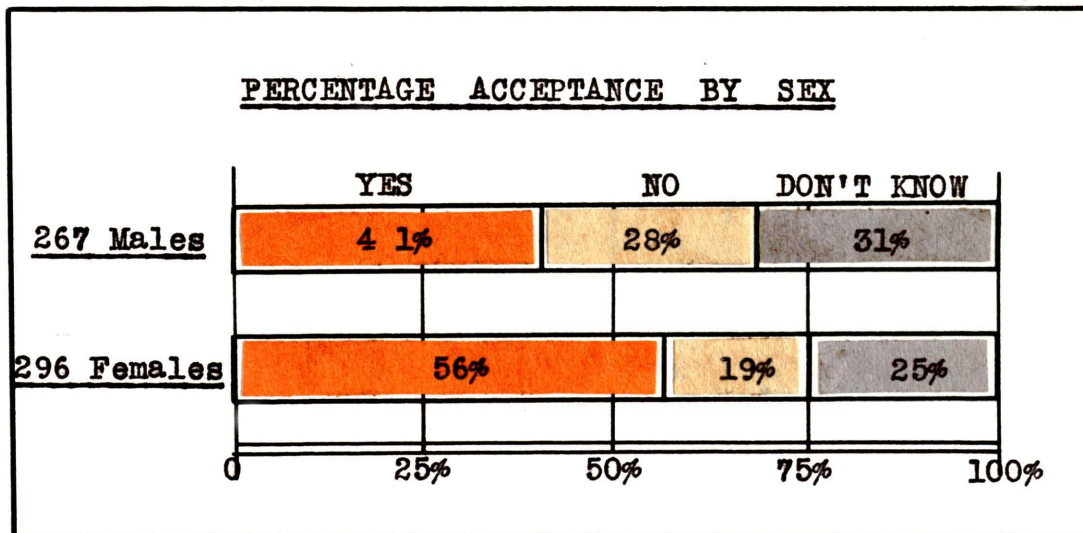


It is now necessary to investigate the habits of these people more closely, and the reasons which prompted them to make their decisions. First let us consider sex. The survey included almost an equal number of males and females. Those who indicated their sex answered as follows: (Do you think you would use the product?)

	<u>Total</u>	<u>Yes</u>	<u>No</u>	<u>Don't Know</u>	<u>No. Replies</u>
Male	48%	41%	28%	31%	267
Female	52%	56%	19%	25%	296

Evidently women have a larger number of "Yes's" and also a smaller number of "No's." In other words they are more favorably impressed by the idea than the men. This would indicate that the most fertile potential market would be among women. Our conclusion from this analysis is therefore:

Women as a group accept the idea to a much greater extent than men. They consequently offer a better market for the product.



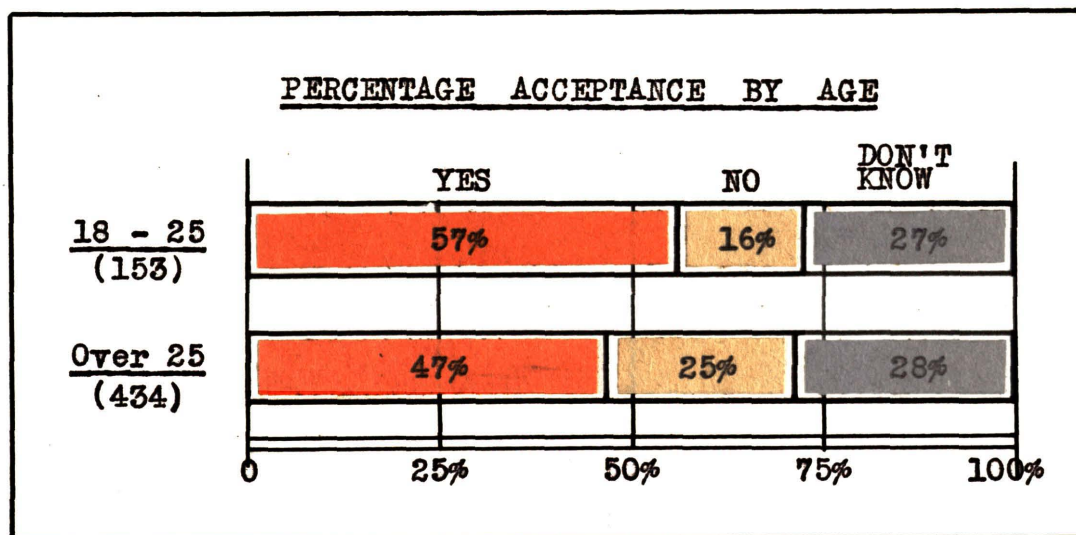
Age seems to have an affect on the consumer reaction. The survey did not include enough persons under 18 years of age (A suitable contact was not available) to draw conclusions from. However the two age groups 18-25

and over 25 showed some difference.

	<u>Total Replies</u>	<u>Yes</u>	<u>No</u>	<u>Don't Know</u>	
18-25	26%	153	57%	16%	27%
Over 25	74%	439	47%	25%	28%

Apparently there is a slightly better acceptance among the younger persons. It is possible however that those considerably over the age of 25 affect the results of this group. In view of the above the conclusion is:

Persons between 18 and 25 years of age are more favorable to the new product than those in the age group of over 25.



Now let us study more closely the habits of these people in regard to the two key products. They can be divided into three groups: Those who use mouthwash frequently, those who use it infrequently, and those who never use it.

The group using it frequently will include those who checked "Several times daily" and "Once a day." The infrequent users are those who use it "Occasionally" and "Very Rarely." Those who do not use it checked "Never" on the questionnaire.

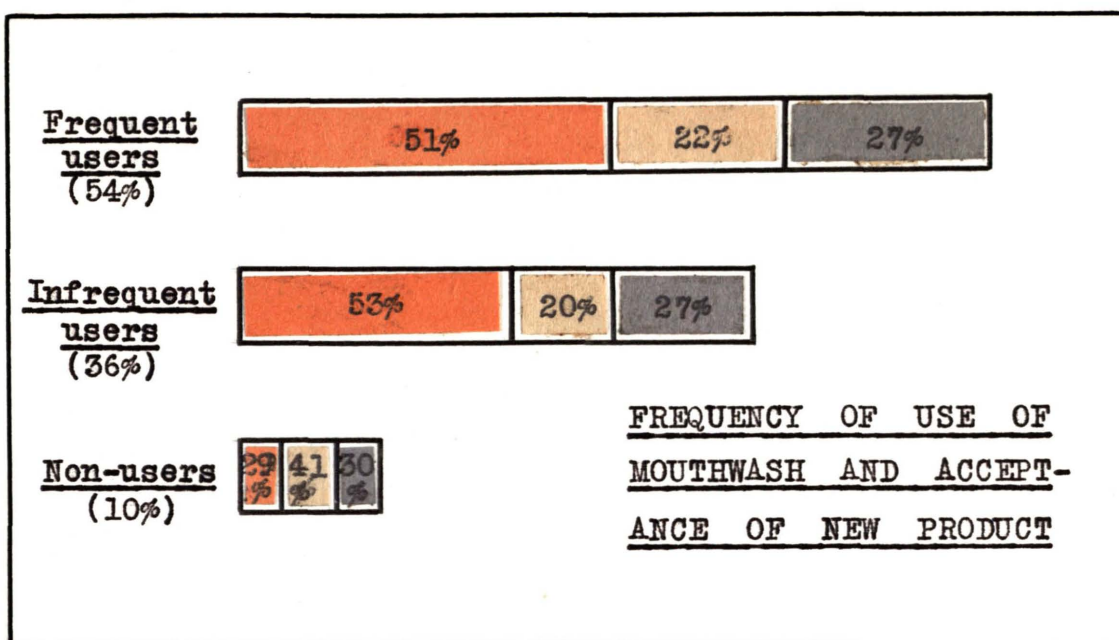
The following shows how these three groups reacted to the new product:

	<u>Total Replies</u>	<u>Yes</u>	<u>No</u>	<u>Don't Know</u>
Frequent Users	54% 310	51%	22%	27%
Infrequent Users	36% 212	53%	20%	27%
Non-Users	10 56	29%	41%	30%

The attitude of the first two groups is not greatly different but the non-users are quite definitely lined up against the product. The conclusion is therefore:

+Individuals who use mouthwash either frequently or infrequently are equally good customers. Non-users as a group do not react favorably.

+It was feared that some people might object to answering questions of this nature dealing with personal hygiene. However there was no indication in the returned questionnaires that justified this fear and the questions were answered as often as the rest.



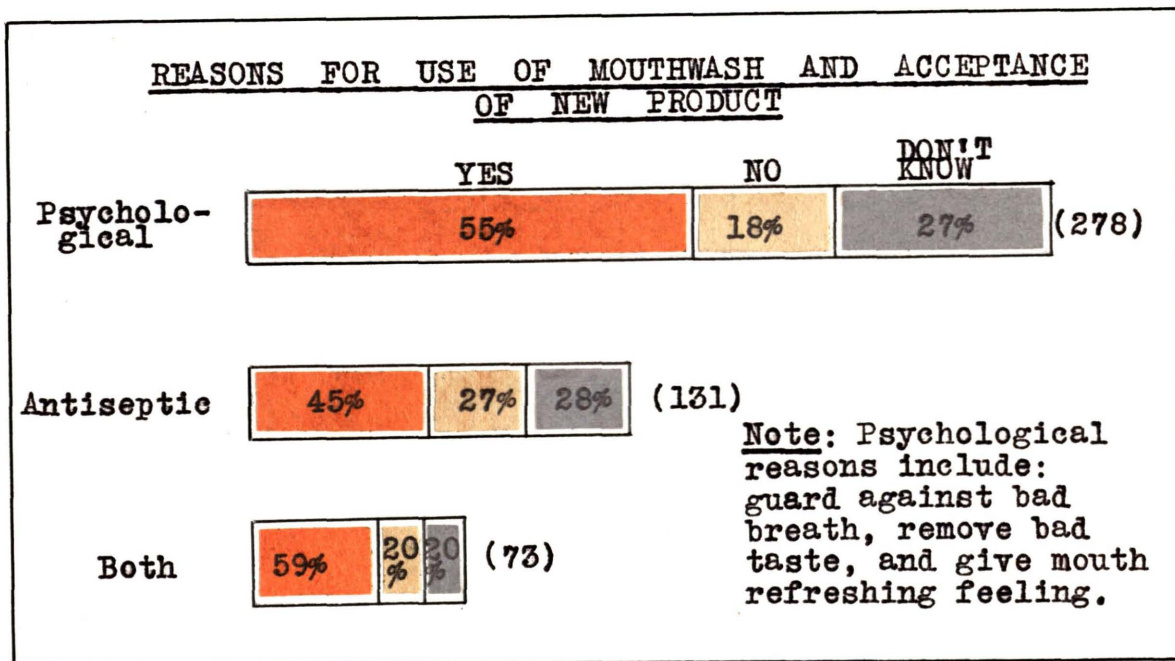
In order to study the reasons why these people use mouthwash, the answers to the questionnaire have been divided into two main parts: Antiseptic, and psychological. Antiseptic includes only the answer "Antiseptic Value." Psychological includes the answers: "Guard against bad breath," "Give Mouth a refreshing feeling," and "Remove bad taste from mouth." The psychological group is evidently interested only in that the product should give a sensation of cleanliness to the mouth. The answers according to the above were as follows:

	<u>Total Replies</u>	<u>Yes</u>	<u>No</u>	<u>Don't Know</u>
Antiseptic	27% 131	45%	27%	28%
Psychological	58% 278	55%	18%	27%
Both	15% 73	59%	20%	20%

Over half the people gave only psychological reasons for using mouthwash. Merely one out of four persons use it for antiseptic reasons alone.

This leads to the conclusion that:

More than half of the people who use mouthwash do so for psychological reasons. About one quarter use it for its antiseptic value. The remainder use it because of its psychological and antiseptic value. Those not using mouthwash for its antiseptic value are more favorable to the new product.



A study of preference as to brands and the degree of acceptance of the new product in each class yielded the following results:

	<u>Total Replies</u>		<u>Yes</u>	<u>No</u>	<u>Don't Know</u>
Listerine	45%	225	50%	22%	28%
Pepsodent	19%	95	60%	17%	23%
Lavoris	16%	82	56%	23%	21%
Others	20%	101	39%	28%	34%

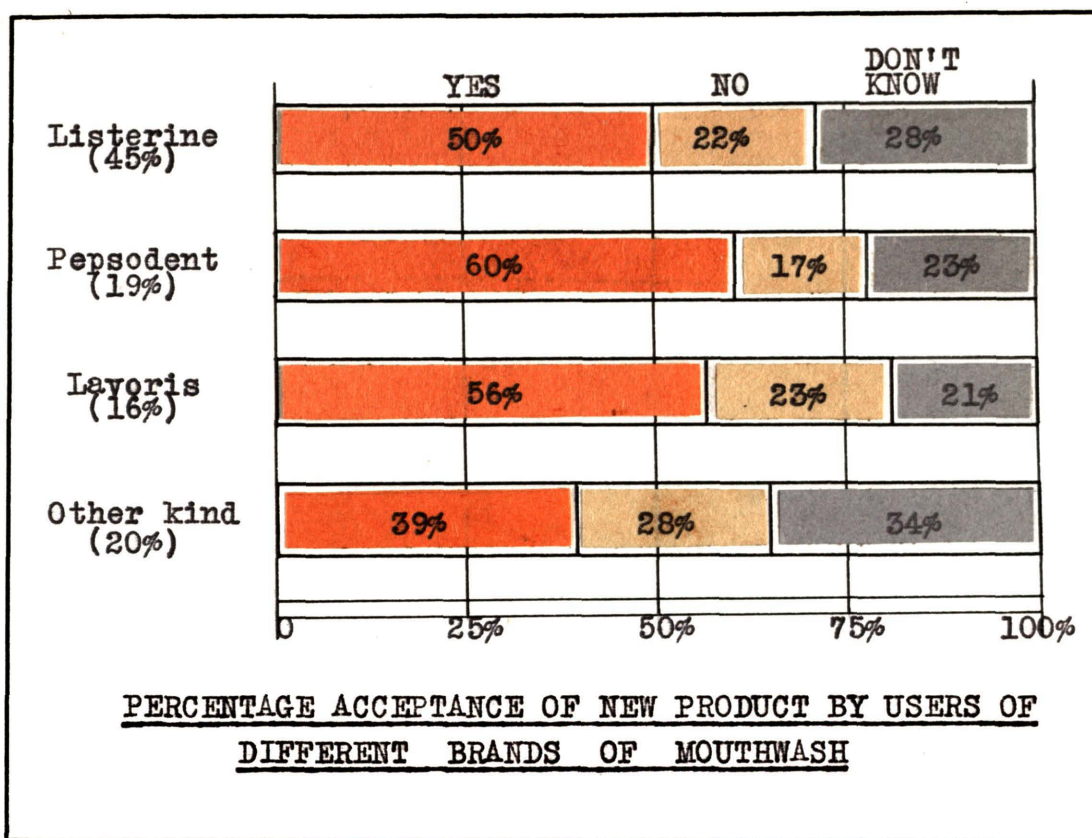
Listerine is ofcourse the most popular mouthwash, because almost one half of the people use it. The second most popular is Pepsodent, with approximately one person in five using it. Lavoris is third in popularity, used by one person out of six. About 20% of the group use other kinds.

Evidently acceptance among users of the three popular brands is much higher than among those using less known brands or home made products. Pepsodent users seem most favorable to the idea, judging from their larger number of "Yes's" and smaller number of "No's." The Lavoris group is also slightly better than Listerine.

The foregoing leads to the following conclusion:

+ Acceptance of the idea among users of the three popular brands of mouthwash (Listerine, Lavoris, and Pepsodent) is much higher than among those who use less known brands. Pepsodent users are evidently most favorable to the new product.

+The Pepsodent Company, making a full line of hygienic products, would be a logical company to attempt to interest in the product.



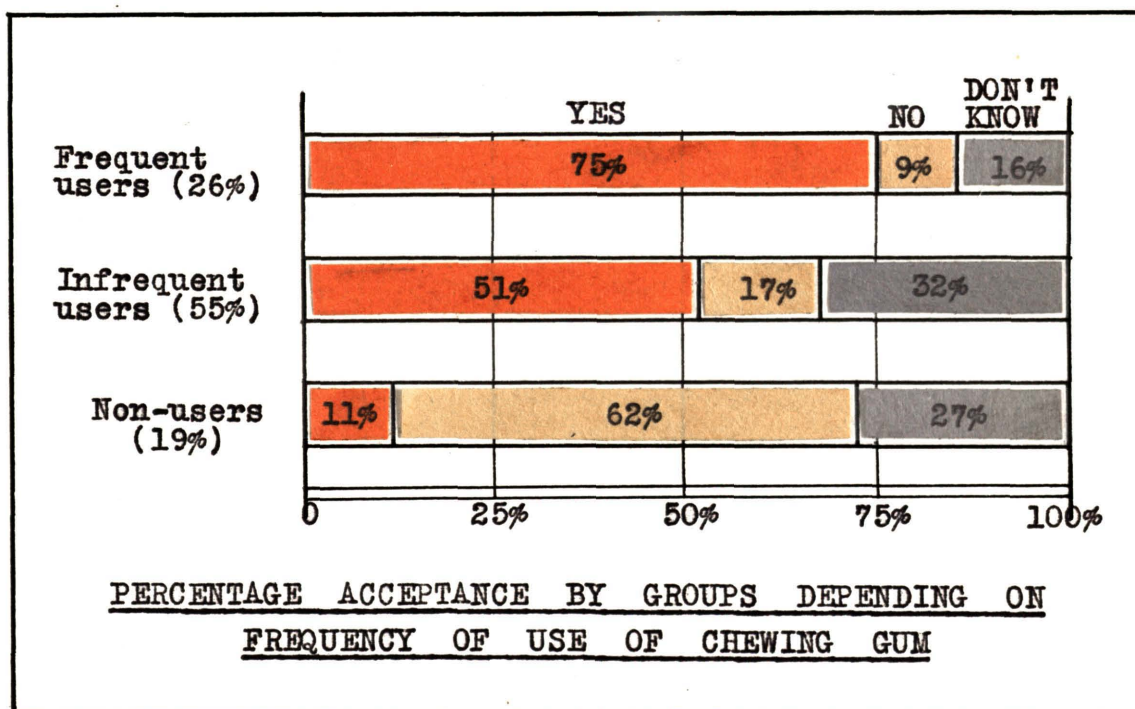
Now follows an analysis of the chewing gum habits of the people questioned. Here again we may divide them into three main groups: Those who use gum frequently, those who use it infrequently, and those who never use it. The group which uses it frequently includes those who checked "Daily," and "Several times a month." The infrequent users are those who use it "Occasionally" and "Very Rarely." Those who never use it checked "Never" on the questionnaire. Results:

	<u>Total Replies</u>	<u>Yes</u>	<u>No</u>	<u>Don't Know</u>
Frequent Users	26% 153	75%	9%	16%
Infrequent Users	55% 323	51%	17%	32%
Non-Users	19% 115	11%	62%	27%

There is a marked acceptance among those who chew gum frequently, and these people are evidently the most interested in the new product. Even the infrequent users show a fair acceptance, one out of two stating that he would use the product. The non-users are generally not in favor of the product, but it is interesting to note that a few of them express interest and indicate that they might become converted. Reasons for non-use were given as follows:

Consider it a bad habit 30% Do not like taste of it 6%
 Have no desire to----- 51% Other Reasons----- 12%

Evidently only 12% of this group, which answered "Yes" would be induced to buy the product.



Those Who Do Not Use Mouthwash

Reason	Total		Yes		No		Don't Know	
	No.	%		%		%		%
Never Tried it	17	30	9	53	3	18	5	29
Do Not Think it Does any good	11	20	1	9	6	55	4	36
Too Expensive	7	13	1	14	4	57	2	29
Too Inconvenient	3	5	1	33	1	33	1	33
Have No Desire To	18	32	4	22	9	50	5	28
Total	56		16		23		17	
	%		29 %		41 %		30 %	

Those Who Do Not Use Gum

Reason	Total		Yes		No		Don't Know	
	No.	%		%		%		%
No Desire to	59	51	10	17	34	58	15	25
Consider It a Bad Habit	35	30	2	6	27	77	6	17
Do Not Like Taste	7	6	0	0	1	14	6	86
Other Reasons	14	12	1	7	9	64	4	29
Total	115		13		71		31	
	%		12%		62%		27%	

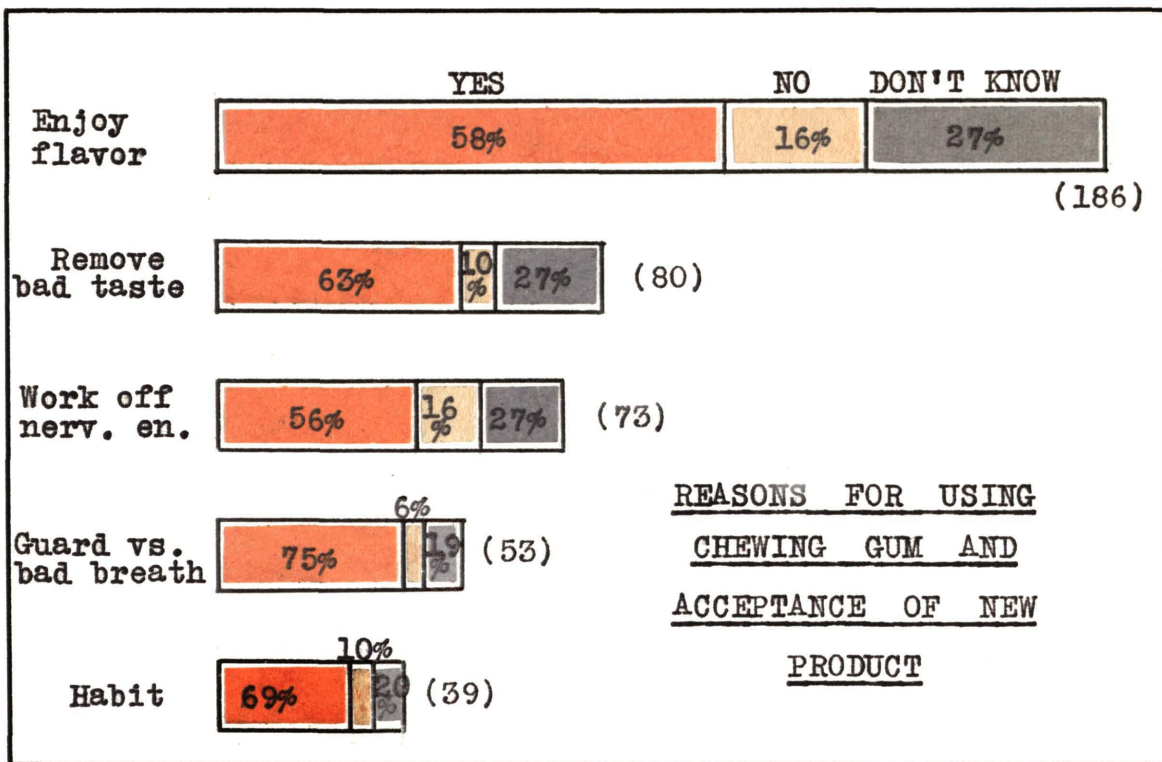
The reasons which this group gives for using chewing gum are tabulated as follows:

	<u>Total</u>	<u>Yes</u>	<u>No</u>	<u>Don't Know</u>
Remove bad taste	19% 80	63%	10%	27%
Work off nervous energy	17% 73	56%	16%	28%
Guard vs. bad breath	12% 53	75%	6%	19%
Enjoy flavor	43% 186	58%	16%	26%
Habit	9% 39	69%	10%	20%

Ofcourse since only users of gum voted on this question the results are very favorable. It is interesting to note that one out of every eight persons uses gum to guard against bad breath, and that 75% of this group would accept the new product, only 6% answering "No." Flavor ofcourse is the most important appeal,-- 40% giving this as their reason. The flavor of the proposed product would play a very important part in its success. Spearmint, peppermint, and cinnamon are known to be the most popular flavors. Consequently it would be best to have any one of these or all of them in the new product.

In view of the above, the conclusion is:

The flavor of the new product would have to be as good as that of its competitors in addition to its antiseptic qualities. A goodly percentage of gum users give as their reasons the various mouthwash appeals.



And thus the results of the questionnaire have been presented. The information will not only make possible the drawing of conclusions as to the feasibility of manufacturing the product but it can be used in determining some of the important marketing points that should be employed in event the product were to be introduced in the market.

Comments received in the questionnaires appear on the following three pages, followed by a brief presentation of interviews with eleven retail druggists.

Comments in Questionnaires

The comments written in the questionnaires were directed toward certain major points in the development and marketing problems of the product. They will be presented here according to this grouping as follows:

Comments on the antiseptic idea

"I believe chewing gum now is as effective as mouthwash. It should be an antiseptic slowly losing its qualities. A product like this would be excellent for sore mouths caused by false teeth or bridgework.

Don't think it would supplant use of mouthwash.

Should like it to have antiseptic value as well as checking bad breath.

It would have to be effective, not like some of the mouthwashes you mention.

It would be a means of getting those who do not use an antiseptic to use it in this form. I think it would prove most beneficial to public health. I personally prefer the liquid form. Using gum would reach all parts of the mouth better. What would become of the saliva of this gum? Would you expectorate or swallow? "

Comments as to flavor

"I think it should be peppermint, and would give it a try.

It should taste like juniper-berry.

Good and lasting flavor would enhance its chance of success.

Taste should be pleasant rather than antiseptic or bitter.

Should taste like Beech Nut Peppermint flavor.

Get away from regular gum flavors.

Idea very good, I like a Beech Nut taste.

Very important to have a pleasant taste.

Use subject to good taste,--spearmint.

No medicinal flavor.

Would like it to have a cool, refreshing taste like an antiseptic.

Must have no medicinal flavor. My favorite is cinnamon.

Mouthwash flavor should not be recognizable.

If it had a medicinal taste I wouldn't use it."

Comments on convenience

"Convenience would be the main advantage.

Often wondered why antiseptic was not made in a form convenient to carry. Had thought of tablets for use away from home.

Very convenient and useful.

More convenient to use than mouthwash."

Comments on packaging

"Should be put in handy pocket packages.

Offer 10 sticks for five cents, cutting size of stick.

Put in chiclet form."

Other Comment

"Mouthwash would not be so expensive in gum form.

Would augment rather than replace existing mouthwashes.
Couldn't give an intelligent opinion until it was given
a trial.

Might use in preference to ordinary gum."

- - - - -

The comments in general, although being relatively few in number, indicate an interest in the product and bear out the statistics showing that 43% of gum users are primarily interested in the flavor. There is some desire for a product better than present mouthwash, and the convenience of the use of this product would undoubtedly appeal to many.

It is interesting to note that the size of sticks is commented on. The writers had thought of offering a stick about two thirds the size of regular gum, since the opinion was heard that present sticks are too large and the chiclet form too small.

- - -

+Retail Distribution of the Product

Although the scope of this thesis was not intended to include a study of the methods of distribution which would be met with if the product were to be put on the market, the writers thought it would be interesting to get the reaction of retailers to the idea.

Eleven retail druggists in Boston were interviewed and asked nine significant questions each. The questions were intended to bring out information on handling procedure and incentives for accepting the new product. A short summary of the answers follows:

1) Would you buy a box?

Five druggists stated that they would buy a box, without qualification. Five said they would buy if the product were well advertised, two of these adding that if it were not advertised they would expect to get a merchandise bonus. One replied that he would not buy until demand was assured.

2) How many packages in a box would you prefer, 20 or 24 in a carton, to sell at the same price to you?

The majority believed that having 24 packages in a carton would be a good idea, having some incentive value toward

+ See Appendix. Answers of retailers are presented in a table

their accepting and selling the product. One did not see any justification for having 24 in a box.

3) If you would not buy would you take a box on consignment?

While two retailers stated they did not want to fill up the store with consignment goods, the remainder were divided between willingness and unwillingness.

4) Would you put the box on the counter or in a conspicuous place?

Nine stated they would. One considered fountain space too valuable, and another didn't answer.

5) In what ways could a retailer make special effort to push such an item?

Only three answered the question directly, stating they could do nothing much but might mention it to a few customers.

6) Would you use window space and (or) posters for it?

Four probably would, and four stated they would not. Two others thought they would if rewarded with merchandise or cash.

7) Do you prefer to deal with the jobber or the manufacturer?

Eight preferred to deal with the jobber, some believing they got better service thereby. Three said it made no difference. There was some feeling expressed that manufacturers had a tendency to overstock retailers.

8) What are your views on deals? Extra product, gifts?

The most united opinion was found among those who desired the lowest price (highest margin of profit) obtainable and believed deals were best for larger stores. Feeling was expressed that deals tended to overstock the retailer. One stated he was an easymark for deals and consequently had a store full of old merchandise.

9) What value do you place on samples? How would you distribute them?

Nine were definitely in favor of distributing samples to their customers, two stating it was better than advertising. Most of these would put a sample in each purchase but a few would let the customers help themselves.

Two were not in favor of samples, one of whom objected to "Acting as sampling boy for a manufacturer." It was evident from the conversation that the latter's management policies were full of 'rugged individualism.'

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From the small number of interviews the indication is that retailers are in general receptive to the idea. It was easy to deduct that there would be far less hesitency on their part if the product were put out by a well known company. As has been inferred, this contact with retailers is of little or no value, but of some interest in connection with the subject. Actual sale would depend a lot on the individual salesman handling the product or the jobber, and certainly a good deal on the liberality extended in placing the first stocks of the new product.

A P P E N D I X

Cooperating Companies and Individuals

Mr. Demaris, assistant Sales Manager, New England Candy Company, Cambridge, Mass.

Mr. John Gore, Sales promotion department, The Beech-Nut Packing Company, Canajoharie, N. Y.

Professor Samuel Prescott, Dean of Science, Massachusetts Institute of Technology.

Mr. Livingston, president, The National Chicle Company, Cambridge, Mass.

Mr. Resch, general manager, The Goudey Gum Company, Boston.

Mr. David Horvitz, confectionery jobber, Providence, R.I.

Mr. J. MacKenney, Personnel Department, Hood Rubber Company, Watertown, Mass.

Miss. Ruth M. Slattery, assistant personnel manager, Houghton and Dutton, Boston, Mass.

Mr. J. Maynard, paymaster, Ginn and Company, Cambridge, Mass.

Mr. George Hartwell, superintendent of dormitories, Massachusetts Institute of Technology.

Mr. Burgois, secretary, Young Men's Christian Association, Boston, Mass.

Professor Kingsley, Department of Psychology, Boston University.

Professor Alexander F. Magoun, Department of Humanities, Massachusetts Institute of Technology.

Mr. Ellsworth B. Buck, secretary, The National Association of Chewing Gum Manufacturers, Pier 23, Rosebank, S.I., N.Y.

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Confectionery Distribution in the United States: 1929-30 Ed.
Bureau of Foreign and Domestic Commerce 381:U58fd

Statistics on national sales, and manufacture of confectionery goods.

Merchandising Requirements of the Drug Store Package:
Bureau of Foreign and Domestic Commerce 381:U58fd

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Specific information on how to conduct a marketing survey.

INTERVIEWS WITH MANUFACTURERS

Interview January 25, 1934

Mr. Horwitz, Confectionery Jobber, Providence, R.I.

Horwitz Brothers supply wagon jobbers and certain retailers with a wide variety of confectionery items. They have no salesmen of their own and never advertise, the business being maintained largely by goodwill. New confections and gums are brought to their attention every week but innovations in the five cent gum field are very few.

Mr. Horwitz was not interested in the writers' proposed new product except from the point of view of his margin of profit. Cartons of twenty packages of five cent gum are sold to jobbers at a standardized price of \$0.55 and the jobber is chiefly interested in having a quick turnover and fair margin of profit on the goods.

Jobbers will push a new product however if they are given an extra margin which they can pass on in part to their own distributors and customers. Although a cash discount is preferable the giving of bonuses and gifts is used in some cases.

Jobbers may also be induced to handle a new or old product if the manufacturer maintains missionary salesmen whose job it is to "create a demand for the product" and distribute samples. During the interview a salesman of the Fleer Gum Company of Philadelphia was supervising the activities of a crew of men distributing samples in the Providence, R.I. locality introducing a new product of that company.

Interview January 25, 1934

A Salesman, The Fleer Gum Co., Philadelphia, Penn.

The Fleer Company is a medium sized manufacturer of one cent chewing gums appealing to children. It makes no product in direct competition with Wrigley's, Clark's, Beeman's, Dentyne's, or Beech Nut's. The company is equipped to develop and manufacture almost any chicle product.

According to the salesman the Fleer Company launches new products by distributing samples in factories, schools, and offices. It regards advertising in newspapers, magazines, billboards and leaflets as ineffective as far as the company and its products are concerned.

The salesman thought the idea of a "mouthwash-chewing gum" had interesting possibilities but stated that the idea was not new. It had not been exploited to his knowledge except possibly by the old Listerated Gum Corp., Newport, R.I.

The Fleer Company uses no market analysis devices but merely develops a new product and tries it out. Public reaction usually lags the innovation of a new product by approximately three weeks. If no repeat orders are received by the end of a month the product is likely to be a failure.

The salesman believed that the five cent gum field had many obstacles uncommon to the penny gum field, such as the necessity of advertising, and the difference of appeals.

Interview February 19, 1934

Mr. DeMaris, Sales Manager, The New England Confectionery
Company, Cambridge, Massachusetts

The New England Confectionery Company manufactures a full line of candies. The Company maintains men in the field to carry on market analysis and provides them with products to be tested in the market. Use is made of questionnaires but usually a new product is submitted at the same time for the consumer's approval or criticism. A typical new candy was tested as follows: The Company requested fifty names of persons in different walks of life from newspapers in certain cities. Letters were sent to these people in regard to their attitude toward receiving a box of candy and answering questionnaires. This means was successful in getting a cross section of public opinion and at the same time getting the new product before a small portion of the public.

Mr. DeMaris, the Sales Manager, believes a questionnaire should be brief, appealing, and should ask "why" as well as opinions. He believes that valuable information can be obtained from consumer surveys without giving samples of the product, but that there was not nearly so much inducement for the individual to co-operate with the investigator.

Although he was unfamiliar with past or present consideration of the new product which the writers propose, Mr. DeMaris believed it had possibilities which merited investigation. In his opinion it should have an attractive name, which would tie in with the product, suggesting or describing it.

Interview March 1, 1934

Mr. Livingstone, Pres. National Chicle Co., Cambridge, Mass.

The National Chicle Company began operations in January, 1934 and manufactures novelty one cent gums appealing to children. The company advertises by sending samples to retailers, jobbers, and consumers. Packages contain premiums and color stamps which induce children to buy the product in order to accumulate the stamps.

National Chicle uses no market analysis devices, but the management expressed faith in questionnaires. Mr. Livingstone proposed as a panacea for the writers that they select a thousand names from the telephone directory and mail questionnaires. Mr. Livingstone was reticent to admit whether or not he had profited by this method.

The management thought the idea of an antiseptic gum had possibilities but believed that its introduction would require a "Kitty of half a million dollars."

Mr. Livingstone had corresponded with the Listerine Company about the idea of a Listerated chewing gum, but would not divulge the conclusions reached. The correspondence did not result in any action being taken on the idea.

National Chicle would manufacture the product for the writers if the development were completed.

Interview March 7, 1934

Mr. Resch, General Manager, The Goudy Gum Co., Allston, Mass.

The Goudy Company's staff has recently considered the possibility of bringing out a gum immitating the flavor of a popular mouthwash. Mr. Resch stated that the Lavoris Company had considered the idea and did not regard it as unprofitable. Nothing was being done however about incorporating an antiseptic into such a gum.

Mr. Resch's opinion was that the addition of an antiseptic to chicle would destroy the fibre of the gum. He admittedly was not familiar with the chemistry of suitable antiseptics, but stated he would be glad to have his staff work on synthesizing the product if the writers could produce a suitable antiseptic. The cost of production would probably be between 1 and 1 1/4 cents per five cent package. The standard price paid by the jobber for gum is about \$0.55 per carton of twenty packages.

The Goudy Company uses questionnaires in getting opinions on new products. Mr. Resch approved the writers' questionnaire as "having the right idea."

Mr. Resch believed that the promotion of the proposed new product should be undertaken by a large manufacturer already in the field, since considerable capital would be required. The company should preferably be one making either mouthwash or chewing gum.

Interview March 23, 1934

Mr. John Gore, Sales Research, Beech Nut Co., Canajoharie, N.Y.

The Beech Nut Packing Company manufactures a full line of five cent hard candies and chewing gums, and has for the past few years been convinced of the possibilities of selling a "mouthwash-chewing gum." Mr. Gore was not at liberty to give cost of production figures, merely indicating that the company could probably make and sell profitably a product such as the proposed new gum.

In Mr. Gore's opinion the market for a gum having truly antiseptic properties, and classed as medicated, would be very limited. The best market potentialities are found in the confectionery field.

The pure food and drug laws specify that any such product must be branded either medicated or confectionery. Examples of medicated gums are Feenamint and those containing aspirin. The writers' product must be selected from one of these fields.

Mr. Gore pointed out that in a questionnaire no questions should be asked that did not pertain to the specific product under investigation. The questionnaire should correspond exactly with the printed matter on the package. The Beech Nut Company makes allowances for the anxiety of the public to react favorably to new products which it tests in the market from time to time, and this is similarly true when the public is given questionnaires.

Interview March 26, 1934

Dr. S. C. Prescott, Dean of Science, M. I. T.

Dr. Prescott pointed out that the Pure Food and Drug Commission keeps a watchful eye on makers of mouthwashes and medicated candies because of misleading claims the companies make on their printed labels and advertisements. Laxative candies, for example, can have ill effects on children who eat them over-indulgently believing them to be candy. A confectionery product must be harmless, else it falls into the medicated class and must be treated as such in advertising. The feature ingredients of a product must be labeled qualitatively on the package.

The writers agreed with Dr. Prescott and the Beech Nut Packing Company that there is limited possibility for the successful sale of a truly antiseptic chewing gum, branded as medicinal. It was the aim of the writers in selecting the product that it should compete with confectionery gums.

Thus the decision was made that the product should be a confectionery gum. Certain essential oils used in popular mouthwashes could be featured such as oil of eucalyptus, cinnamon, and peppermint. The appeal would then be directed toward oral hygiene and mouth refreshment rather than misleading claims about the germ killing properties of the antiseptic. There would be no occasion for the censoring of the Pure Food and Drug Commission.

QUESTIONNAIRE RETURNS BY SOURCES

GINN AND CO.

Source.....

	MALE	FEMALE	NEUTER	TOTAL
Yes	2	9		11
No	5	4		9
Don't know		6		6
No ans.	2			2

	YES	NO	DON'T KNOW	NO ANS.	TOTAL
Excellent	7				
Pretty good	4				
Fair		1	5		
No good		6	1		
No comment		2			
Listerine	4	1	3		
Lavoris	2	1			
Pepsodent	3	2	1		
S.T. 37		1			
Other kind	1	3			
No ans.	2	1	1		
Sev times daily	1				
Once a day	3	5	2		
Occasionally	4	3	2		
Very rarely	1		1		
Never	2	1	1		
No ans.					
Antiseptic	3	4	1		
Psychological	5	1	3		
Both	1	3	1		
No ans. (never)		1			
Habit or other					
GUM					
Daily	2				
Sev times weekly	2		2		
Few times a month	5	2			
Very rarely	2	3	3		
Never		3	1		
No ans.		1			
Remove bad taste	1				
Nervous energy	3	2			
Guard bad breath					
Enjoy flavor	5	1	4		
Habit	2		1		
Other reasons		4			
No answer					

LOBSTER CLAW RESTAURANT

Source.....

	MALE	FEMALE	NEUTER	TOTAL
Yes	5	4		9
No	13	2	3	18
Don't know	6	6	1	13
No ans.				

	YES	NO	DON'T KNOW	NO ANS.	TOTAL
Excellent	4	1	3		
Pretty good	5	2	2		
Fair		3	7		
No good		15			
No comment		1			
Listerine	3				
Lavoris	4	2	2		
Pepsodent	1	1	1		
S.T. 37	1	5			
Other kind		3	7		
No ans.		8	2		
Sev times daily	1	1	5		
Once a day	3	5	2		
Occasionally	5	3	3		
Very rarely		5	4		
Never		4	1		
No ans.					
Antiseptic	2	6	3		
Psychological	1	4	2		
Both	3	2	5		
No ans. (never)		6			
Habit or other					
GUM					
Daily	1				
Sev times weekly	3	1			
Few times a month	1		4		
Very rarely	4	8	7		
Never		9	1		
No ans.					
Remove bad taste	2	1	1		
Nervous energy	1	2			
Guard bad breath	2		2		
Enjoy flavor	4	3	6		
Habit	1	1			
Other reasons	1	11	1 4		
No answer					

Houghton and Dutton Dept. Store

Source.....

	MALE	FEMALE	NEUTER	TOTAL
Yes	13	44	5	62
No	7	21	3	31
Don't know	7	17	1	25
No ans.				

	YES	NO	DON'T KNOW	NO ANS.	TOTAL
Excellent	48	2	2		
Pretty good	12	2	8		
Fair	1	1	10		
No good		13	2		
No comment	1	13	3		
Listerine	27	15	14		
Lavoris	12		4		
Pepsodent	10	5	5		
S.T. 37		1			
Other kind	3	4			
No ans.	10	6	2		
Sev times daily	17	6	13		
Once a day	28	16	7		
Occasionally	10	1	4		
Very rarely	3	2	1		
Never	1	4			
No ans.	2	1			
Antiseptic	10	6	8		
Psychological	35	8	13		
Both	10	5	3		
No ans. (never)	2	1			
Habit or other	5	7	1		
GUM					
Daily	8		1		
Sev times weekly	12	1	1		
Few times a month	5	1	5		
Very rarely	31	5	13		
Never	5	24	5		
No ans.					
Remove bad taste	13		3		
Nervous energy	4		6		
Guard bad breath	8				
Enjoy flavor	25	5	10		
Habit	6				
Other reasons	4	2	1		
No answer	7	24	7		

M I T DORMITORIES

Source.....

	MALE	FEMALE	NEUTER	TOTAL
Yes	25			
No	60			
Don't know	31			
No ans.	4			

	YES	NO	DON'T KNOW	NO ANS.	TOTAL
Excellent	9		1		
Pretty good	14	3	11		
Fair	3	16	13		
No good		21	1		
No comment		20	5		
Listerine	6	4	4		
Lavoris	5	6	3		
Pepsodent	2	3	5		
S.T. 37	3	6	4		
Other kind	2	12	11		
No ans.	5	4	1		
Sev times daily			3		
Once a day	2	1	1		
Occasionally	8	16	8		
Very rarely	12	18	16		
Never	3	25	3		
No ans.	1	0			
Antiseptic	3	10	8		
Psychological	15	14	15		
Both	3	4	4		
No ans. (never)	1	3			
Habit or other	1	4	1		
GUM					
Daily	1	1			
Sev times weekly	3		3		
Few times a month	12	3	7		
Very rarely	9	30	19		
Never		26	2		
No ans.					
Remove bad taste	7	1	3		
Nervous energy	1	7	3		
Guard bad breath	4	2			
Enjoy flavor	10	12	16		
Habit	1	1	1		
Other reasons	3	10	3		
No answer		7	3		

Source.....Girl's Class -- Boston University.....

	MALE	FEMALE	NEUTER	TOTAL	
Yes		25			
No		16			
Don't know		29			
No ans.					
		70			
	YES	NO	DON'T KNOW	NO ANS.	TOTAL
Excellent	11	2	0		13
Pretty good	13	0	16		29
Fair	0	5	11		16
No good	1	6	0		7
No comment	0	3	2		5
Listerine	15	6	13		34
Lavoris	2	3	4		9
Pepsodent	3	3	2		8
S.T. 37	2	2	3		7
Other kind	3	1	3		7
No ans.		1	4		5
Sev times daily	2	2	1		5
Once a day	6	4	7		17
Occasionally	13	6	13		32
Very rarely	4	3	5		12
Never	0	1	3		4
No ans.	0				0
Antiseptic	5	3	2		10
Psychological	19	12	20		51
Both	1	0	2		3
No ans. (never)	0	1	3		4
Habit or other	0	0	2		2
GUM					
Daily	0	0	0		0
Sev times weekly	6	1	1		8
Few times a month	8	0	5		13
Very rarely	9	7	17		33
Never	2	8	6		16
No ans.	0	0			0
Remove bad taste	1	1	2		4
Nervous energy	6	1	7		14
Guard bad breath	3	0	1		4
Enjoy flavor	12	5	8		25
Habit	1	0	2		3
Other reasons	1	1	3		5
No answer	2	8	9		19

Institute Service Staff (M.I.T.)

Source.....

	MALE	FEMALE	NEUTER	TOTAL
Yes	7	5	1	13
No	5	1	2	8
Don't know	2	1	1	4
No ans.	2	1		3

	YES	NO	DON'T KNOW	NO ANS.	TOTAL
Excellent	9	1			
Pretty good	3	1	1	1	
Fair	1	1	1		
No good		4		1	
No comment		1	2	1	
Listerine	4	1	3	1	
Lavoris	1	1			
Pepsodent	4	1			
S.T. 37	1	1			
Other kind	3	2		1	
No ans.			1	1	
Sev times daily	5	2	1	1	
Once a day	4	1	1		
Occasionally	4	2	1		
Very rarely				2	
Never		3	1		
No ans.					
Antiseptic	3		1	1	
Psychological	5	1	1	2	
Both	5	2	1		
No ans. (never)		1	1		
Habit or other					
GUM					
Daily	3	1			
Sev times weekly	2	1			
Few times a month	3	1			
Very rarely	5	2	2	2	
Never		3	2	1	
No ans.					
Remove bad taste	5			1	
Nervous energy					
Guard bad breath	6	1		1	
Enjoy flavor	8	1			
Habit		2			
Other reasons		1	2	2	
No answer					

Y M C A

Source.....

	MALE	FEMALE	NEUTER	TOTAL
Yes	29			
No	14			
Don't know	23			
No ans.				

	YES	NO	DON'T KNOW	NO ANS.	TOTAL
Excellent	22		4		
Pretty good	5	1	8		
Fair	2	5	8		
No good		6	1		
No comment			2		
Listerine	7	5	6		
Lavoris	5	2	2		
Pepsodent	5		1		
S.T. 37	1	1	2		
Other kind	5	1	4		
No ans.	6	5	8		
Sev times daily	3		5		
Once a day	9	4	2		
Occasionally	10	4	7		
Very rarely	5	1	3		
Never	1	5	6		
No ans.	1				
Antiseptic	7	2	5		
Psychological	11	6	7		
Both	4	1	3		
No ans. (never)	7	5	8		
Habit or other					
GUM					
Daily	4		2		
Sev times weekly	9	3	2		
Few times a month	6	2	5		
Very rarely	10	3	12		
Never		6	2		
No ans.					
Remove bad taste	3	1	1		
Nervous energy	3	1	7		
Guard bad breath	8	1	2		
Enjoy flavor	12	7	7		
Habit	1		2		
Other reasons	2	1	6		
No answer					

HOOD RUBBER CO.

Source.....

	MALE	FEMALE	NEUTER	TOTAL
Yes	22	42	2	
No	11	9	2	
Don't know	20	18	1	
No ans.				

	YES	NO	DON'T KNOW	NO ANS.	TOTAL
Excellent	43	2	3		
Pretty good	21		17		
Fair	2	6	16		
No good		11	2		
No comment		3	1		
Listerine	26	6	18		
Lavoris	11	5	5		
Pepsodent	12	2	4		
S.T. 37	2	3	1		
Other kind	10	3	9		
No ans.		1			
Sev times daily	14	1	5		
Once a day	16	11	16		
Occasionally	25	5	10		
Very rarely	6	3	6		
Never	4	2	2		
No ans.					
Antiseptic	14	9	9		
Psychological	31	10	22		
Both	12		3		
No ans. (never)		1			
Habit or other	2		2		
GUM					
Daily	10	2	4		
Sev times weekly	19	1	5		
Few times a month	25	2	7		
Very rarely	12	7	21		
Never		10	2		
No ans.					
Remove bad taste	11	1	5		
Nervous energy	15	2	3		
Guard bad breath	4		4		
Enjoy flavor	17	4	14		
Habit	9		1		
Other reasons	10	1	10		
No answer		4			

NECCO CO.

Source.....

	MALE	FEMALE	NEUTER	TOTAL	
Yes	32	62	12	106	
No	28	20	2	50	
Don't know	29	26	0	55	
No ans.	9	6	17	32	
				243	
	YES	NO	DON'T KNOW	NO ANS:	TOTAL
Excellent	81	3	9	7	100
Pretty good	21	4	18	5	48
Fair	3	7	19	3	32
No good		29	4	1	34
No comment	1	7	5	15	28
Listerine	39	19	15	13	86
Lavoris	15	9	5		29
Pepsodent	19	5	11	6	41
S.T. 37	1	1	1		3
Other kind	12	5	14		31
No ans.	20	4	9	13	
Sev times daily	16	8	7	3	34
Once a day	39	10	22	13	84
Occasionally	33	15	12	4	64
Very rarely	9	4	5	2	20
Never	8	7	7	7	29
No ans.	1	10	2	3	
Antiseptic	20	12	10	6	58
Psychological	59	20	28	18	125
Both	10	3	3	2	16
No ans. (never)	11	9	9	8	
Habit or other	6	5	5		
GUM					
Daily	10	2	4	2	18
Sev times weekly	28	1	3	2	34
Few times a month	21	3	8	7	39
Very rarely	37	23	23	15	98
Never	7	21	17	3	41
No ans.	3	1	1		
Remove bad taste	15	5	10	8	38
Nervous energy	15	6	3	2	26
Guard bad breath	14		4	4	22
Enjoy flavor	39	11	14	9	73
Habit	7	2	3	3	15
Other reasons	5				5
No answer	17	26	25	5	

Q U E S T I O N S	ELLIOTT DRUG STORE 85 Mass. Ave.	TECH PHARMACY Mass. Ave.	BARRON'S 196 Huntington Ave.	SAWYER DRUG CO. 150 Huntington Ave.	COPLEY SQ. PHARMY: Copley Square	MAX SCHWERZ'S 38 Huntington Ave.	HUGGAN DRUG CO. Boylston at Mass.	INGALLS' DRUG STORE 194 Mass. Ave.	BAKER PHARAMACY 276 Mass. Ave.	NORRIS DRUG CO. 289 Huntington Ave.	GAINSBORO DRUG CO. Huntington Ave.
1) Would you buy a box?	Only if advertised or if demand was otherwise created.	Yes, always take a chance on one box.	Yes. Would try it out.	Yes, if advertised.	Yes.	No. Not until demand was assured.	Yes.	No, unless well advertised. Would put it on counter if given gratis to us.	Yes, if advertised. If not advertised would expect to get free product.	Only if advertised or in demand.	Yes.
2) How many packages in a box would you prefer? 20 or 24 to sell at the same price?	24 in a box would be a good incentive to push it.	Would prefer to get 24 in a box to any other kind of deal	Don't want 24. 20 is O.K.	24 Would be pretty good.	24 Would be good.	24 Not very great incentive.	24 Would be a good incentive to stock it and push it.	24 Would be better.		24 In a box would be a good incentive.	24 In a box would be good.
3) If you would not buy would you take a box on consignment?	Will always take on consignment.	Will never take candy on consignment.			Yes.	No. Don't want to take up space.		No, not on consignment. Don't want to clutter up store.		Yes.	Yes, because of added profit incentive. (24 in a box)
4) Would you put the box on the counter in a conspicuous place?	Yes	Need counter for fountain. Would put it on cigar counter or with candy.	Yes, if box is small.	Probably.	Yes.	No Answer.	Yes, box should be as small as possible	Yes.	Yes.	Yes.	Yes.
5) In what ways could a retailer make special effort to push such a product?	Nothing much. Might mention it to a few customers.	Nothing except put on counter. Might speak to a few customers.							Might suggest it to a few customers.		
6) Would you use window space and posters for it?	No. Not enough margin of profit.	Only if paid for it in cash or merchandise.	Yes.	Only if paid.	Might.	No. Never.	Perhaps use a little window space because of added margin of 24 in box.	Might use window but probably not.	Wouldn't use window. Window is worth too much for featuring this kind of product.	No.	Not enough margin of profit.
7) Do you prefer to deal with the jobber or the manufacturer?	Jobber.	No difference	No difference.	No difference.	Jobber.	Jobber. More convenient and better service.	Jobber because you don't have to buy so much at once.	Often mfr's. salesman gets 'No.' Then we call up jobber and get product.	Jobber.	Jobber.	Jobber.
8) What are your views on deals? a) extra product, b) useful gifts.	Do not like deals. Want lowest price. Deals are only for large stores.	Prefer extra product. Might take something that could be resold.	Deals are the worst thing that ever happened to this country. None for me.	Deals are sometimes O.K. Either extra goods or useful gifts.	Doubt if would accept deals on new product first time.	Deals are sometimes attractive enough to make one buy.	Sometimes extra product O.K. Don't like gifts, etc.		O.K. on extra goods.	Deals are good. Both extra product and useful gifts are satisfactory.	I am an easymark. Store is full of old goods bought on deals. Somehow I can't resist them.
9) What value do you place on samples? How would you distribute them?	Doubt value of samples or sampling.	Very valuable. Let customers help themselves.	Sampling is good. Would leave them on counter and let customers help selves.	Sampling would be a very good way of introducing the product.	Sampling is better than advertising. Would give one with each purchase.	Would not act as sampling boy for anyone. Why should I?	Very good. Sample with each purchase lest one fellow grab them all.	Good plan. Would let customers help themselves.	Sampling is better than advertising. Would put a pack in every bundle.	Sampling is a good idea.	Sampling is very valuable. Would have someone at door distributing.

**National Association
of
Chewing Gum Manufacturers**

PIER 23, ROSEBANK, S. I.
NEW YORK

TELEPHONE GIBRALTAR 7-2640

April 4, 1934

Mr. Edwin J. Geittmann
Massachusetts Institute of Technology Dormitories
CAMBRIDGE
Massachusetts

OFFICERS

L. W. HOSKINS, *President*
(*President,*
Walla-Walla Gum Co.)
J. C. COX, *Vice-President*
(*Treasurer,*
Wm. Wrigley Jr. Co.)
HARRY G. WISCHMANN, *Treasurer*
(*President,*
Wm. J. Wischmann, Inc.)
ELLSWORTH B. BUCK, *Secretary*

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Brech Nut Packing Co.)
P. L. BECKER
(*Vice-President,*
American Chicle Co.)
HAROLD S. CLARK
(*Treasurer,*
Clark Bros.
Chewing Gum Co.)
A. DUFFIELD SCHAEFFER
(*Secretary-Treasurer,*
American Chewing
Products Corp.)

Dear Sir:

To the best of my knowledge, no chewing gum firm has ever produced or contemplated producing a gum having the properties of a mouth wash, and I have no definite knowledge that the old Listerated Gum Company claimed any such properties for its product.

I know of no survey which has ever been carried out on the subject of your thesis.

The Health Products Corporation, 113 North 13th Street, Newark, N. J., manufacturers of Feen-a-mint chewing gum, have done more with medicated chewing gums than any firm in the country. I don't know how much information they would be willing to give you, but it might be worth while for you to try them anyhow.

Regretting that I cannot be of greater assistance, I am

Yours faithfully,

Ellsworth B. Buck
Secretary

EBB:HD

National Association
of
Chewing Gum Manufacturers

PIER 23, ROSEBANK, S. I.
NEW YORK

TELEPHONE GIBRALTAR 7-2640

March 10, 1934

OFFICERS

W. HOSKINS, *President*
(*President,*
Walla-Walla Gum Co.)

C. COX, *Vice-President*
(*Treasurer,*
Wm. Wrigley Jr. Co.)

HARRY G. WISCHMANN, *Treasurer*
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ELSWORTH B. BUCK, *Secretary*

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HAFOLD S. CLARK
(*Treasurer,*
Clark Bros.
Chewing Gum Co.)

A. DUFFIELD SCHARFFER
(*Secretary-Treasurer,*
American Chewing
Products Corp.)

Mr. Edwin J. Geittmann
Massachusetts Institute of
Technology Dormitories
CAMBRIDGE
Mass.

Dear Sir:

I regret to advise you, in answer to your letter of March 8th, that chewing gum manufacturers have never made public any figures having to do with their sales volume, much less the sales volume as to states.

It is my belief, however, that chewing gum achieves its greatest per capita sales in concentrated industrial areas such as Metropolitan New York, Metropolitan Chicago, industrial sections of Pennsylvania and New England.

If I can supply any additional information I will be glad to do so.

Yours very truly,

ELSWORTH B. BUCK
Secretary

EBB:HD

General Information on

CHEWING GUM

FOODSTUFFS DIVISION

BUREAU OF FOREIGN AND DOMESTIC COMMERCE

WASHINGTON, D. C.

1933

(Price 10 cents)

CHEWING GUM

The United States is the world's largest manufacturer as well as largest consumer of chewing gum. Increasing demand during the past few years has led to the establishment of factories in a few foreign countries, notably Canada, the United Kingdom, Holland, Norway, Sweden, Denmark, Italy, Germany, Japan, Hong Kong and Mexico. Due to the comparatively short time the foreign industries have been established and their relatively small size, manufacturing processes have not been developed to the extent to which they have in this country and in general the product is not of the same standard of quality.

This foreign competition is small, however, but growing, and the United States retains its dominant position in the chewing gum trade of the world. The industry originated here in the invention by an American of the basic formulas, and until the World War the use of chewing gum was restricted almost wholly to this country and Canada, chewing gum exports from the United States then amounting to less than \$200,000 annually. It was the American soldier who really introduced chewing gum into Europe, and sales have since been developed with many other sections of the globe.

UNITED STATES PRODUCTION

Production of Chewing Gum in the United States
(Census of Manufactures)

<u>Year</u>	<u>Number of establishments in the industry</u>	<u>Wage earners Average number</u>	<u>Wages</u>	<u>*Value of Chewing Gum Produced</u>
1914	74	2,048	\$828,467	\$17,159,607
1919	62	3,190	2,679,803	51,240,156
1921	50	1,994	2,148,675	38,864,925
1923	45	2,052	2,233,473	45,512,522
1925	41	2,180	2,537,509	54,117,121
1927	40	2,524	2,727,236	58,419,328
1929	37	2,265	2,732,946	57,229,918
1931	31	2,106	2,418,417	48,156,445

* Includes production by concerns engaged primarily in other industries.

UNITED STATES CONSUMPTION

Estimated Apparent Consumption of Chewing Gum
in the United States

<u>Year</u>	<u>Total Pounds</u>	<u>Total Value*</u>	<u>per capita</u>	<u>Equivalent in Pounds standard sticks per capita**</u>	<u>Value per Capita</u>
1914	25,477,834	\$33,961,954	0.260	39	\$0.346
1920-24,5 year average	63,300,000	88,400,000	0.575	85	0.803
1925	78,315,000	104,420,000	0.679	100	0.905
1927	85,245,000	113,660,000	0.719	106	0.958
1929	90,021,000	114,020,000	0.741	109	0.938
1931	75,418,000	94,273,000	0.607	89	0.760

* Value figures for the years 1920-1924, of the Treasury Department, are estimates of purchases of the people of the United States, based on collections of excise tax on chewing gum in force during those years; 1914, 1925, 1927, 1929 and 1931 values represent value of products at factory (official Census of Manufactures figures), less the value of United States exports, and doubled to establish approximate retail values.

** 147 "sticks" of the standard slab chewing gum equal one pound.

RAW MATERIL

Chicle. The basic gum entering into the manufacture of chewing gum is chicle, obtained by coagulating the milk, or latex, of the Achras Sapota. The sapota tree is indigenous to Central America, though the largest quantity of the gum is produced in the Southern States of Mexico, particularly Yucatan. The trees average about 75 feet in height, with a diameter of 35 to 40 inches, and yield an average of 5 pounds of chicle per tree in one year, but as the trees are tapped again only after the previous incisions are healed, which usually requires 5 to 8 years, the average annual yield per tree is ordinarily less than one pound of chicle. The trees are tapped by native labor throughout the rainy season, which lasts eight or nine months. The milky juice is heated in a vessel and the moisture evaporated until the milk has coagulated into a compact mass. It is then moulded into blocks in which condition it is exported in jute bags. The crude gum as shipped from Mexico contains about 50 percent of water and foreign matter as sand, sticks and leaves. Some evaporation occurs in transit, so that the moisture content is reduced to about 40 percent when it enters the United States.

It was discovered recently that chicle can be obtained from the Euphorbia bush, which grows extensively in the Union of South Africa, and a company was formed to exploit chicle production from this source. At this writing, however, the South African product had not been turned out in commercial quantities.

Jelutong and other Substitutes. A gum much used by some manufactures as a secondary product to compound with chicle is jelutong, which comes from British Malaya and the Netherland East Indies. Jelutong by itself is not a satisfactory chewing gum base. Various other substitutes for chicle, principally the inferior guttas (gutta siak, gutta kay, etc.) have been tried, but, while they compound satisfactorily with the true chicle, they, like jelutong, do not hield a desirable product when used alone. Waxes, resins and balsams of many sorts also have been called into use as partial substitutes.

UNITED STATES IMPORTS OF CHICLE AND JELUTONG
(Pounds)

CHICLE

<u>Country of Origin</u>	<u>1928</u>	<u>1929</u>	<u>1930</u>	<u>1931</u>	<u>1932</u>
Mexico	9,839,930	10,329,510	10,751,615	6,625,789	3,986,619
British Honduras	2,464,145	2,863,331	3,191,274	2,302,668	961,226
Other Countries	<u>131,365</u>	<u>30,589</u>	<u>13,997</u>	<u>---</u>	<u>---</u>
Total	12,435,440	13,223,430	13,956,886	8,928,457	4,947,845

JELUTONG

British Malaya	14,165,670	15,063,168	11,245,056	10,960,518	8,499,648
Netherland E. Indies	2,642,175	3,313,245	1,987,185	---	1,817,050
Other Countries	<u>109,194</u>	<u>---</u>	<u>---</u>	<u>1,980,027</u>	<u>2,173</u>
Total	16,917,039	18,376,413	13,232,241	12,940,545	10,318,871

Sugar and Flavoring Extracts. Sugar is a basic ingredient in the manufacture of chewing gum, making up about 50 to 70 percent of the weight of the finished product.

Of the flavoring used, peppermint and spearmint are the most popular. Domestic production of these two oils is sufficient to supply the home market, very little being imported. Southern Michigan, Northern Indiana and the West Coast are the chief producing centers in the United States. Wintergreen, as generally used, is either the natural oil of wintergreen from North Carolina, or a synthetic flavoring, as likewise are most of the fruit flavorings in use; domestic production in these lines also is able to take care of the bulk of the demand. Licorice root is imported, chiefly from Turkey; Zanzibar furnishes most of the cloves, and cinnamon comes mainly from Ceylon. Balsam of tolu, which is mildly stimulating, and has a distinctive and pleasing flavor, is obtained from the Toluifera balsamum tree in much the same manner as rubber is collected; the Province of Tolu, in Colombia, is the chief source.

MANUFACTURING PROCESSES

The conversion of chicle into chewing gum entails various gum cleaning, filtering, sterilizing and compounding processes upon the perfection of which the salability and market value of the product depend. Skill is required in mixing the ingredients, it being especially necessary that the glucose, caramel paste, powdered sugar, flavoring extracts and medicaments (if any) be added to the melted gum in fixed order, with the temperature of the mass at about 250° F. If the temperature is allowed to drop too low the gum becomes brittle; if the temperature is too high, the gum becomes sticky and difficult to handle. Modern factories have air-conditioning installations which keep the humidity at the desired point. Thirteen pounds of chicle as it comes from the final processing will make about 5,000 standard pieces of slab chewing gum.

A typical chewing gum formula is: Gum chicle, 3 1/2 pounds; balsam tolu, 2 ounces; sugar, 12 pounds; flavoring extract as desired. Another one calls for chicle 14 percent, chicle substitute 14 percent, caramel paste 1 percent, glucose 14 percent, powdered (XXXX) sugar 57 percent, flavoring extract as desired.

VAIREITES OF PRODUCT

The four major classifications of chewing gum are slab or stick, ball, hard surfaced (in shapes other than spherical) and medicated. All these are put out in many flavors, the first two types perhaps in the greatest variety. Peppermint is the most popular, although spearmint is finding increasing favor in the United States, England and France. Other flavors are licorice, wintergreen, fruit, cinnamon and various trade combinations.

In the domestic market slab or stick gum enjoys the largest sale. The standard size stick is three inches long, 0.75 inch wide and 0.075 inch thick. The stick is sale dusted and erapped in paraffin paper and sometimes in tinfoil, after which it is ready for labelling and packing.

Ball gum is a candy-coated ball about half an inch in diameter which lends itself particularly well to sale through vending machines. Other hand-surfaced gums also are provided with a hard sugar coating after being cut into various shaps and sizes; they are sold both in bulk and packages.

Medicated gum is primarily medicine combined with chewing gum to disguise the taste of the medicine itself. The most common type is a laxative gum, although other medicinal qualities-pepsin, licorice, menthol, acid acetyl-salicylic (aspirin), etc., - also are offered in this form.

PACKING

Packing methods employed by the various manufacturers vary for both domestic and export shipping. One method for domestic handling is the case of 50 paper cartons, each carton containing 20 packets of gum. Both corrugated fiber board and wooden cases are used, the fiber container probably predominating.

In export packing, one method used for countries offering little change in climate is the standard paper carton containing 20 packets of gum. For export purposes, the packet of 6 sticks is in demand, whereas 5 sticks per packet is the standard domestic practice. Each carton is wrapped separately in heavy waxed paper and hermetically sealed, after which 100 cartons are packed in a wooden case that has been interlined with waterproof case liners.

Shipments of chewing gum intended for countries having tropical climates are best packed in air-tight glass jars, 100 packets to the jar. Each jar is covered with excelsior padding and packed in an individual corrugated fiber-board container. These are then packed 12 jars to a wooden case.

Chewing gum, it should be remembered, is perishable and becomes hard and crumbles, even in dry storage, after about six months. Hence the need for great care in packing.

MARKETING

Chewing gum reaches the consumer through many and varied types of retail outlets - candy, cigar, hotel and theater stands, department, grocery and drug stores, and restaurants, to name but a few. Some gum is also purchased by mail direct from wholesalers and jobbers, but the proportion of such sales is probably not very large.

Considerable chewing gum is sold through vending machines, both in the domestic market and abroad. When using this medium, it is necessary that the package, stick, or ball conform in price with the local coin, such as the penny or nickel in the United States and corresponding foreign currency.

To better serve the increasing world demand American chewing gum manufacturers have established branch factories in Australia, Canada, Germany, Great Britain and Mexico, thus facilitating economical distribution and better local sales service.

UNITED STATES EXPORT TRADE

United States export trade in chewing gum is characterized by small shipments to nearly every corner of the globe, this product having gone to 80 different foreign countries in 1932. Candy-coated gum is most popular in the export field because of its superior keeping qualities, an important consideration in hot or humid climates. It has also been found that the added sweetness given to this product by the candy-coating assists its sale in some countries where the chewing gum habit has not yet been acquired. The decrease in total exports from the peak year 1926 has been practically in the same amount as the decline in shipments to the United Kingdom. This may be accounted for by the increased activities of a branch factory of a large American manufacturer established in that country several years ago. Actual foreign consumption is believed to be increasing.

UNITED STATES EXPORTS OF CHEWING GUM 1930-1932.

Country of <u>Destination</u>	<u>1 9 3 2</u>		<u>1 9 3 1</u>		<u>1 9 3 0</u>	
	<u>Pounds</u>	<u>Value</u>	<u>Pounds</u>	<u>Value</u>	<u>Pounds</u>	<u>Value</u>
Hawaii	243,729	\$ 128,764	212,626	\$ 129,647	280,775	\$ 148,371
Philippine Islands	218,314	81,812	320,512	144,248	478,470	190,775
France	151,798	45,163	175,489	53,535	201,813	63,372
Japan	146,059	57,664	688,581	249,646	281,106	109,294
Porto Rico	113,273	42,845	112,788	48,900	125,984	54,285
Colombia	110,625	61,466	46,136	27,643	60,896	30,803
Cuba	59,785	21,229	108,110	39,378	146,373	52,662
Belgium	56,195	16,511	92,914	28,089	134,127	43,020
United Kingdom	55,573	24,692	151,868	44,488	726,910	185,275
Honduras	54,268	26,969	58,463	28,798	65,614	34,059
Panama	49,670	30,249	61,799	35,618	97,124	51,656
South Africa	47,295	14,854	77,406	36,780	68,713	32,124
Venezuela	46,017	17,511	52,815	22,701	69,644	31,178
China	44,229	24,913	42,057	22,538	149,515	81,281
Spain	37,504	9,742	53,800	15,613	51,909	18,703
Canada	36,597	10,760	100,596	32,373	50,226	18,666
Guatemala	33,150	14,396	71,949	35,185	72,710	36,464
Costa Rica	26,617	11,477	46,647	22,013	63,993	28,739
Mexico	24,155	11,227	41,257	22,239	61,235	34,440
Peru	23,809	10,892	44,924	20,377	47,955	23,087
Syria	22,715	6,259	25,345	9,910	24,224	10,297
Nicaragua	22,555	9,593	20,573	10,148	26,074	13,617
Dominican Republic	21,757	11,187	31,775	14,176	56,627	26,823
Argentina	21,700	10,598	37,177	17,831	49,785	23,970
Italy	18,701	3,691	15,218	3,012	16,515	4,461
Br. Malaya	15,870	7,216	10,866	6,475	16,519	10,159
Other Countries	<u>181,613</u>	<u>90,881</u>	<u>413,811</u>	<u>177,180</u>	<u>674,327</u>	<u>283,517</u>
Total	1,883,573	\$ 792,561	3,115,502	\$ 1,298,541	4,099,163	\$ 1,641,098

SOURCE OF INFORMATION

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Organizations

National Association of Chewing Gum Manufacturers, and allied trade, pier 23 Rose-
ba n k Staten Island, N.Y *Ellsworth B. Busch, Sec.*

BUREAU ASSISTANCE TO AMERICAN CHEWING GUM EXPORTERS

American exporters of chewing gum have at their disposal the services of more than 1,000 consuls and commercial agents of the Department of State and Commerce scattered all over the world, and of district and cooperative offices of the Bureau of Foreign and Domestic Commerce throughout the United States; in marketing their product in foreign countries.

The Bureau is prepared to furnish chewing gum exporters the following practical aids:

1. Trade Lists. Lists of foreign confectionery importers interested in chewing gum. (Confidential) 50 cents per list.
2. Sales Information Reports. Sales information on individual foreign firms. (Confidential) \$1.00 per report.
3. Market Reports. Detailed Analyses of the principal foreign chewing gum markets.
4. International Trade Statistics. Exports and imports by the United States and all foreign countries.
5. Commerce Reports. A weekly summary of foreign trade and market conditions the subscription price of which is \$1.50 per year. The district and cooperative offices of the Bureau are authorized to accept subscriptions. Sample copies may be had upon request.
6. General Information on Export Trade Practices. Foreign customs duties, transportation routes, packing for export, marking and labeling requirement, methods of distribution, advertising, foreign pure-food laws and sanitary regulations, foreign credit practices, currency and exchange, are a few types of information available upon request.

The only requirement incident to obtaining such of these services as involve confidential information is registration on the Bureau's "Exporters' Index," a list of active exporting firms the ownership of which is at least 51 percent American. Application forms for such registration may be obtained from the nearest district or cooperative office or direct from the Bureau in Washington. No charge is made for this registration nor for the other Bureau services described except as above noted.

*h E Confect. Assn-0-
40 Court st, Boston*