The use of tables of measurement in business

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BOSTON UNIVERSITY
SCHOOL OF EDUCATION

Thesis

THE USE OF TABLES OF MEASUREMENT IN BUSINESS

under the direction of

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Submitted by

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1930
INTRODUCTION

In general, business concerns may be grouped under the heads of trading or mercantile houses and manufacturing concerns. A trading or mercantile house buys and sells a finished product; a manufacturing concern buys raw material and employs labor to convert that raw material into a finished product.

Two other classifications of business are wholesale and retail. The wholesale house buys from the jobber or manufacturer in large quantities and sells to the retailer. A retail house buys from the wholesale and sells in turn to the consumer.

Business, therefore, concerns itself with the buying and selling of goods. The price of the goods, or, in other words, their economic value, expressed in the currency of the country, is fixed by the contract of sale. In fixing the price of goods, two factors must be considered,—quality and quantity. The quality of the goods can be ascertained by inspection and tests and is therefore very easily graded. Quantity is estimated by means of standard tables of measurement. There are fixed units by which varying kinds of goods are measured and the contract of sale indicates the quantity according to these units. In other words, quantity is a fixed standard while quality is not.

Tables of measurement, therefore, are used in business in order to have a fixed standard. There are many tables of measurement and they have been arrived at by age-old customs that have grown out of the business transactions of men. In fact, from the beginning of history, and even far back in the mists of tradition, mankind has been engaged in evolving forms of measurement for the varied transactions of everyday life.
In order to determine a value for goods, the quantity of the goods must be found. Expressed in the terms of a table of measurement, the value is determined by a reduction ascending or a reduction descending, and in accordance with one or the other the value is stated in the contract of sale. By a reduction descending is meant the change of denominate numbers from higher to lower denominations; for example, the reduction of four bushels, two pecks, six quarts, one pint, to 301 pints. By reduction ascending is meant the change from lower to higher denomination; as, the reduction of 113,628 square inches to two square rods, twenty-seven square yards, one square foot, eighty-four square inches.

Business also concerns itself with two values, gross and net. Gross measurement includes some material other than the one valued, and net measurement is that which concerns the value of the material only. While it is true that most articles packed in cartons, tins, or cases, or contained in bottles, are generally valued according to the net weight of their contents, business has so measured the cubical contents of the containers that cubical measurement is used to guage the other measurements.

In the following pages, I shall endeavor to show the use of tables of measurement in several selected business enterprises.
UNITs OF MEASUREMENT

Definitions

Measure. A measure is a standard unit to determine Quantity.

Quantity. Quantity is anything that can be measured.

Standard Unit of Measurement. A standard unit of measurement is a unit established by law or custom, by which other units are to be adjusted.

TABLEs OF MEASUREMENT

I. LINEAR MEASURE--8 Units

Linear Measure for Distances

Table

12 inches equal 1 foot
3 feet " 1 yard
5\(\frac{1}{2}\) yards " 1 rod
320 rods " 1 mile

Other Linear Measures

1 size equals 1/3 inch, or 1 barleycorn
(Used by shoemakers).

1 hand equals 4 inches.
(Used in measuring the height of horses).

1 fathom equals 6 feet.
(Used in measuring the depths at sea).
II. SQUARE MEASURE—7 Units

Square measure is used to measure the areas of surfaces.

Table

- 144 square inches equal 1 square foot
- 9 square feet " 1 square yard
- 30\(\frac{1}{2}\) square yards " 1 square rod
- 160 square rods " 1 acre
- 640 acres " 1 square mile

A square is 100 square feet. The acre is the unit in measuring land.

III. CUBIC MEASURE—5 Units

Cubic measure is used to measure the volume of solids and the contents or capacity of hollow bodies.

Table

- 1728 cubic inches equal 1 cubic foot
- 27 cubic feet " 1 cubic yard
- 24\(\frac{3}{4}\) cubic feet " 1 perch
- 128 cubic feet " 1 cord

1 cubic yard (of earth) equals 1 yard

Other Cubic Measurements

A perch of stone is 16\(\frac{1}{2}\) feet long, 1\(\frac{1}{2}\) feet wide and 1 foot high.

A cord of wood is 8 feet long, 4 feet wide, and 4 feet high.

A cubic foot of water weighs 62\(\frac{1}{2}\) pounds avoirdupois.
IV. LIQUID MEASURE—6 Units

Liquid measure is used for measuring liquids and in estimating the capacity of cisterns, tanks, reservoirs, etc. 

Table

<table>
<thead>
<tr>
<th>16 ounces</th>
<th>equal</th>
<th>1 pint</th>
</tr>
</thead>
<tbody>
<tr>
<td>4 gills</td>
<td>&quot;</td>
<td>1 pint</td>
</tr>
<tr>
<td>2 pints</td>
<td>&quot;</td>
<td>1 quart</td>
</tr>
<tr>
<td>4 quarts</td>
<td>&quot;</td>
<td>1 gallon</td>
</tr>
<tr>
<td>31 1/2 gallons</td>
<td>&quot;</td>
<td>1 barrel</td>
</tr>
</tbody>
</table>

The standard unit of liquid measurement is the wine gallon containing 231 cubic inches.

V. APOTHECARIES' FLUID MEASURE—5 Units

Apothecaries' fluid measure is used by druggists in prescribing and compounding liquid measurements.

Table

<table>
<thead>
<tr>
<th>60 minims</th>
<th>equal</th>
<th>1 fluid drachm</th>
</tr>
</thead>
<tbody>
<tr>
<td>8 fluid drachms</td>
<td>equal</td>
<td>1 fluid ounce</td>
</tr>
<tr>
<td>16 fluid ounces</td>
<td>&quot;</td>
<td>1 pint</td>
</tr>
<tr>
<td>8 pints</td>
<td>&quot;</td>
<td>1 gallon</td>
</tr>
</tbody>
</table>

The standard unit of measurement is the wine gallon containing 231 cubic inches.

VI. DRY MEASURE—4 Units

Table

<table>
<thead>
<tr>
<th>2 pints</th>
<th>equal</th>
<th>1 quart</th>
</tr>
</thead>
<tbody>
<tr>
<td>8 quarts</td>
<td>&quot;</td>
<td>1 peck</td>
</tr>
<tr>
<td>4 pecks</td>
<td>&quot;</td>
<td>1 bushel</td>
</tr>
</tbody>
</table>

The standard unit of dry measure is the Winchester bushel, which contains 2,150.42 cubic inches.
Other facts about dry measure.
The Winchester bushel is used in measuring grain, sand, etc. The heaped bushel of 2,747.71 cubic inches is used in measuring fruits, vegetables, and other coarse articles.

VII. TROY WEIGHT—5 Units

Troy weight is used in weighing gold, silver, diamonds, and other precious minerals.

<table>
<thead>
<tr>
<th>Table</th>
</tr>
</thead>
<tbody>
<tr>
<td>3.168 grains equal 1 karat</td>
</tr>
<tr>
<td>24 grains &quot; 1 pennyweight</td>
</tr>
<tr>
<td>20 pennywts &quot; 1 ounce</td>
</tr>
<tr>
<td>12 ounces &quot; 1 pound</td>
</tr>
</tbody>
</table>

Other facts about Troy Weight.
The term karat (or carat) has two meanings. In weighing diamonds it is a denomination of weight and is equal to 3.168 grains. Its second use is to denote the fineness of gold and means 1/24th part. Gold marked 18 K (18 karats) is 18/24 by weight pure gold and 6/24 alloy.

VIII. APOTHECARIES' WEIGHT—5 Units

Apothecaries' weight is used by druggists and physicians in compounding and prescribing medicines.

<table>
<thead>
<tr>
<th>Table</th>
</tr>
</thead>
<tbody>
<tr>
<td>20 grains equal 1 scruple</td>
</tr>
<tr>
<td>3 scruples &quot; 1 dram</td>
</tr>
<tr>
<td>8 drams &quot; 1 ounce</td>
</tr>
<tr>
<td>12 ounces &quot; 1 pound</td>
</tr>
</tbody>
</table>

Other facts about Apothecaries' Weight.
Drugs and chemicals when used in compounding medicines
are weighed by apothecaries' weight. When they are sold at wholesale, avoirdupois weight is used.

IX. AVOIRDUPOIS MEASURE--5 Units

Avoirdupois measure is used in weighing all sorts of large, heavy articles.

Table

<table>
<thead>
<tr>
<th>16 ounces</th>
<th>equal</th>
<th>1 pound</th>
</tr>
</thead>
<tbody>
<tr>
<td>100 pounds</td>
<td>&quot;</td>
<td>1 hundredweight</td>
</tr>
<tr>
<td>20 hundredwt.&quot;</td>
<td>1 ton</td>
<td></td>
</tr>
</tbody>
</table>

Other facts about Avoirdupois Weight.

The long ton consists of 2,240 pounds. It is used in the United States Customs House in determining the duty on merchandise taxed by the ton.

X. CIRCULAR OR ANGULAR MEASURE--7 Units

Circular or angular measure is used in measuring angles or arcs of circles as applied to surveying, engineering, latitude, longitude, etc.

Table

<table>
<thead>
<tr>
<th>60 seconds</th>
<th>equal</th>
<th>1 minute</th>
</tr>
</thead>
<tbody>
<tr>
<td>60 minutes</td>
<td>&quot;</td>
<td>1 degree</td>
</tr>
<tr>
<td>360 degrees</td>
<td>&quot;</td>
<td>1 circle</td>
</tr>
</tbody>
</table>

The standard unit of circular measure is the degree.

Other facts about Circular or Angular Measure.

In astronomical calculations the circle is sometimes divided into signs, sextants, and quadrants.

In a circle there are: 12 signs of 30 degrees each
6 sextants of 60 " "
4 quadrants of 90 " "

XI. TIME MEASURE—3 Units

Time is the measure of duration.

Table

<table>
<thead>
<tr>
<th>Duration</th>
<th>Equal to</th>
</tr>
</thead>
<tbody>
<tr>
<td>60 seconds</td>
<td>1 minute</td>
</tr>
<tr>
<td>60 minutes</td>
<td>1 hour</td>
</tr>
<tr>
<td>24 hours</td>
<td>1 day</td>
</tr>
<tr>
<td>7 days</td>
<td>1 week</td>
</tr>
<tr>
<td>30 days</td>
<td>1 month</td>
</tr>
<tr>
<td>52 weeks</td>
<td>1 year</td>
</tr>
<tr>
<td>12 months</td>
<td>1 year</td>
</tr>
<tr>
<td>100 years</td>
<td>1 century</td>
</tr>
</tbody>
</table>

Other facts about Time Measure.

The common year has 365 days. Leap year has 366 days.

XII. PAPER MEASURE—5 Units

Paper measure is the measure of stationery.

Table

<table>
<thead>
<tr>
<th>Quantity</th>
<th>Equal to</th>
</tr>
</thead>
<tbody>
<tr>
<td>24 sheets</td>
<td>1 quire</td>
</tr>
<tr>
<td>20 quires</td>
<td>1 ream</td>
</tr>
<tr>
<td>2 reams</td>
<td>1 bundle</td>
</tr>
<tr>
<td>5 bundles</td>
<td>1 bale</td>
</tr>
</tbody>
</table>

The standard unit of measure is the sheet.

XIII. UNIT MEASURE—5 Units

Table

<table>
<thead>
<tr>
<th>Number</th>
<th>Equal to</th>
</tr>
</thead>
<tbody>
<tr>
<td>20 units</td>
<td>1 score</td>
</tr>
<tr>
<td>12 units</td>
<td>1 dozen</td>
</tr>
<tr>
<td>12 dozen</td>
<td>1 gross</td>
</tr>
<tr>
<td>12 gross</td>
<td>1 great gross</td>
</tr>
</tbody>
</table>
XIV. MONEY MEASURE--

Money measure is the standard measure of the currency of the land.

<table>
<thead>
<tr>
<th>Table of United States Money—6 Units</th>
<th>6 Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>5 pennies equal</td>
<td>1 nickel, or five-cent piece</td>
</tr>
<tr>
<td>10 pennies</td>
<td>1 dime, or ten-cent piece</td>
</tr>
<tr>
<td>5 nickels</td>
<td>1 quarter, or twenty-five-cent piece</td>
</tr>
<tr>
<td>10 nickels</td>
<td>1 half dollar, or fifty-cent piece</td>
</tr>
<tr>
<td>100 pennies, or 20 nickels, or 10 dimes, or 4 quarters, or 2 fifty-cent pieces equal 1 dollar.</td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Table of English Money—4 Units</th>
<th>4 Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>4 farthings equal</td>
<td>1 penny</td>
</tr>
<tr>
<td>12 pence</td>
<td>1 shilling</td>
</tr>
<tr>
<td>20 shillings</td>
<td>1 pound or sovereign</td>
</tr>
</tbody>
</table>

The standard of English money is the sovereign.

<table>
<thead>
<tr>
<th>Table of French Money—4 Units</th>
<th>4 Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>10 millimes equal</td>
<td>1 centime</td>
</tr>
<tr>
<td>10 centimes</td>
<td>1 decime</td>
</tr>
<tr>
<td>10 decimes</td>
<td>1 franc</td>
</tr>
</tbody>
</table>

The standard unit of French money is the franc.
SUMMARY

1. Linear Measure ........................................ 8 Units
2. Square Measure ........................................ 7 Units
3. Cubic Measure .......................................... 5 Units
4. Liquid Measure ........................................ 6 Units
5. Apothecaries' Fluid Measure ......................... 5 Units
6. Dry Measure ............................................ 4 Units
7. Troy Weight ............................................ 5 Units
8. Apothecaries' Weight .................................. 5 Units
9. Avoirdupois Measure .................................. 5 Units
10. Circular or Angular Measure ......................... 7 Units
11. Time Measure .......................................... 8 Units
12. Paper Measure ......................................... 5 Units
13. Unit Measure .......................................... 5 Units
14. Money Measure:
    United States ......................................... 6 Units
    English ................................................. 4 Units
    French .................................................. 4 Units
    Total .................................................... 89 Units
I. Introduction

1. How business is classified.

2. The basis of prices.
   a. Quality--determined by tests.
   b. Quantity--by standard tables of measurement.

3. Tables of measurement:
   a. Based on age-old customs.
   b. Necessary to all business transactions.

4. Business values.
   a. Reduction ascending and descending.
   b. Gross and net values.

II. Units of measurement

1. Definitions:
   a. Measure.
   b. Quantity.
   c. Standard unit of Measure.

III. Tables of Measurement

1. Summary.

IV. Study of a Department Store: The Gonzalez Padin Company.

   Floor # 3.

   1. House Furnishings:
      a. Rug Department.
      b. Furniture.
         (1) Kitchen.
         (2) Bedroom.
         (3) Parlor.
         (4) Dining room.
Floor # 2.

1. Clothing.
   a. Women's.  b. Men's.  c. Misses'
   d. Boys'.  e. Infants'.

Floor # 1.

1. Soda Fountain.

2. Candy and Pastry.

3. Shoe Department.
   a. Women's.  b. Men's.  c. Misses'.
   d. Boys'.  e. Infants'.

4. Domestic Department.
   b. Other Goods.
   c. Bed Furnishings.
   d. Oilcloth.
   e. Tablecloths.
   f. Towels.
   g. Curtains.
   h. Handkerchiefs.
   i. Scarfs.

5. Miscellaneous.
   a. Small Wares.

6. Drug Department.

7. Jewelry Department.

8. Picture Department.

Basement.

1. Trunk Department.
   a. Bags, Trunks, Hatboxes.
   b. Refrigerators.

2. Flower Department.

3. Chinaware Department.
   a. Dishes.
   b. Kitchenware.
Basement (Continued.)

4. Hardware Department.
5. Paper Department.
   b. Stationery.
   c. Wall Paper.
6. Paint Department.
7. Electrical Department.

Analysis of Merchandise by Tables.

V. Study of a Drug Store. The Porto Rican Drug Co.

1. Prescription Department.
   a. Standard Units for Compounding.
   a. Liquids.
   b. Solids.
   c. Powders.
3. Perfumery and Toilet Articles.
   a. Liquids.
   b. Solids.
   c. Powders.
5. Notion Department.

Analysis of Merchandise by Tables.


1. Buying and Selling at Wholesale.
2. Importing Goods.
3. How Profit is Determined.
4. Packing of Goods:
   a. In Sacks or Bags.
   b. In Wooden Cases.
   c. In Cartons.
   d. In Bundles.
Sobrinos de Villamil Sen (Continued.)

Analysis of Merchandise by Tables.

VII. Study of a Provision Store. The Plaza Provision Company Inc.

Sales Divisions:

1. Groceries.
   b. Canned Goods.
   e. Loose Goods.

2. Vegetables.

3. Produce.

4. Candy.
   a. Boxed.
   b. In Jars.
   c. In Bars.
   d. Loose.

5. Tobacco.
   a. Cigars.
   b. Cigarettes.
   d. In Cans.
   d. In Jars.


Analysis of Merchandise by Tables.


1. Kinds of Wood Used:
   a. Mahogany.
   b. Laurel Sabinos.
   c. Cedar.
   d. Nuez Moscada.
   e. Other Kinds.

2. Processes of Manufacture.
   a. Seasoning.
   b. Designing.
   c. Cutting, assembling, varnishing, finishing.

Analysis of Merchandise by Tables.


1. The Tobacco Plant.
   a. Cigar Wrapper Tobacco.
   b. Cigar Filler Tobacco.
   c. Binders.

2. Tobacco Supplies.

3. The Manufacture of Cigars.

4. Shipping Cigars.

5. Blending Cigar Tobacco.


7. Pricing Cigars.

Analysis of Merchandise by Tables.

X. Summary of Units of Measurement by Items.
A Study Made in the Use of Tables

of the

Gonzalez Padin Company

San Juan, Porto Rico

The Gonzalez Padin Company is probably the largest department store in the City of San Juan, Porto Rico. It offers for sale merchandise for the complete equipment of the home and office, and also for the outfitting of men, women, and children.

The Company has entire control of five floors and a basement, each floor containing approximately a surface area of 100 by 225 feet, or 22,500 square feet. The fourth and fifth floors are for stockroom purposes only and are reached by an electric elevator which runs from the center of the basement to the center of the fifth floor.

As the basement and the first, second, and third floors are those that display the merchandise for sale, I will treat each separately, recording the type of merchandise and the measure used in determining the value of the sale.

Floor # 3

House Furnishings

Rug Department

Linoleum, felt base rugs, mats, etc. are sold in this department. They can be obtained as art squares made up of a solid pattern with a decorated border. Prices are charged according to the square measure of the rug. The standard rug sizes are:

- 3 x 9 ft.
- 6 x 9 ft.
- 7 1/2 x 9 ft.
- 9 x 9 ft.
- 9 x 10 1/2 ft.
- 9 x 12 ft.
- 9 x 15 ft.

There are also miniature rugs called utility mats, which can
be secured in the following sizes:

- 18 x 27 in.
- 18 x 36 in.
- 18 x 54 in.
- 24 x 36 in.
- 24 x 48 in.
- 24 x 54 in.
- 36 x 72 in.

Linoleum rugs to fit the room can also be bought. These come in six or nine foot widths, the customer being charged at a fixed rate times the square yardage of the piece desired.

Rug borders and hall runners, ranging from 22½ inches to one yard in width, and sold at a fixed rate per linear yard, are also available to the customer.

**Grass Rugs.** These rugs are without seams and are sold in the following sizes:

- 36 x 72 in.
- 6 x 9 ft.
- 6 x 12 ft.
- 8 x 10 ft.
- 9 x 12 ft.

**Inlaid Linoleum Rugs.** The size and range of these rugs is similar to that of the linoleum rugs. The only difference is in the thickness, and this is due primarily to the material used and the lacquer finish of the inlaid rug.

**Axminster, Velvet, Tapestry Rugs.** These are cloth rugs of one sort or another and all can be bought in the following sizes:

- 24 x 48 in.
- 24 x 54 in.
- 26 x 52 in.
- 27 x 48 in.
- 27 x 54 in.
- 36 x 72 in.
- 6 x 9 ft.
- 7½ x 9 ft.
- 8½ x 10½ ft.
- 9 x 12 ft.
- 10½ x 12 ft.

Rugs to fit any size of room can be secured in nine and twelve foot widths only. The rate times the number of linear feet gives the amount to be charged.

Rug borders and hall runners can be secured in 27 and 36 inch widths, and the rate times the number of linear yards gives the charge.
Oval rugs are priced according to the width and length. Rug fringe is usually about four inches deep and is sold by the linear yard. Felt lining is sold by the yard.

Linoleum paste and cement are sold in quart, gallon, and five-gallon cans. A gallon of paste is sufficient for about twelve square yards of linoleum, and one quart of cement will do about ten yards of seams.

Stair treads, door mats, and stair pads are sold singly at a stated price, which is graded according to size and quality. Cotton carpet binding is sold in rolls containing about ten and one-quarter yards.

Furniture. Kitchen Stoves. Ranges are priced according to three measures:

1. The cubical content of the oven.
2. The square surface of the cooking top.
3. The square surface of the floor space.

The cheapest range has in the above order:
1. 18 x 17 x 12\(\frac{3}{8}\) inches.
2. 31 x 24\(\frac{1}{8}\) inches.
3. 34 x 48 inches.

The costliest range has:
1. 22 x 21 x 12\(\frac{1}{2}\) inches.
2. 31 x 27\(\frac{1}{2}\) inches.
3. 36 x 50 inches.

Gas stoves are also priced according to three measures as above, with an additional consideration given to the number and types of gas burners.

Oil heaters are priced according to the size determined by the cubical calculation of the dimensions.

Gas heaters are priced according to the number of radiants and the
heating of the square surface of asbestos.

**Kitchen Tables.** These usually have enamel tops and the price is determined by the surface area of the top, computed in inches.

Breakfast sets for kitchens consist of a table and four chairs.

**Kitchen Cabinets.** These are priced according to their size, and such other considerations as make, number of shelves, cubical contents of top and bottom, square surface of floor covered, square surface of base, and the depth, length, and width of the upper part, computed in inches.

**Bedroom Furniture.** Beds. Full-size beds usually measure \(4 \frac{1}{2} \times 6\) feet. They are made of metal and wood and are of two groups: The first is the bed that is a part of the bedroom set; or it may be a bed of a certain historical period. The second group contains any bed that is not contained in the first. Twin beds measure \(3 \times 6\) feet, and are usually sold in pairs.

Mattresses are priced according to size, thickness, material content, and cover, and are sold in thirty-nine and fifty-four inch sizes. Pillows are priced according to sizes. Small pillows are \(17 \times 24\) inches and \(18 \times 25\) inches. Large pillows, \(20 \times 28\) inches and \(22 \times 28\) inches.

Cedar Hope Chests are priced according to their cubical contents and the standard sizes are:

- \(40 \times 18 \times 21\) inches
- \(42 \times 18 \times 21\) inches
- \(45 \times 19 \times 21\) inches
- \(48 \times 20 \times 21\) inches

Bed springs seem to be priced according to the number of coil springs. I have found the range to be 90, 99, 140, and 180 coil springs.

Bedrooms are usually furnished with a complete set of similarly designed pieces rather than with odds and ends.
Parlor Furniture. This can be bought in sets or in individual pieces, consideration being given to the size of the room. Prices are determined by the quality of the material used rather than the size of the pieces. A few of the dimensions of a standard set may be of interest.

<table>
<thead>
<tr>
<th>Stuffed</th>
<th>Width Over All</th>
<th>Width Between Arms</th>
<th>Depth of Seat</th>
<th>Height of Back</th>
</tr>
</thead>
<tbody>
<tr>
<td>Stationary Davenport</td>
<td>81 in.</td>
<td>65 in.</td>
<td>21(\frac{3}{8}) in.</td>
<td>34 in.</td>
</tr>
<tr>
<td>Bed Davenport</td>
<td>91 in.</td>
<td>73(\frac{1}{2}) in.</td>
<td>23(\frac{1}{2}) in.</td>
<td>33(\frac{3}{8}) in.</td>
</tr>
<tr>
<td>Club Chair</td>
<td>26 in.</td>
<td>19 in.</td>
<td>21(\frac{1}{2}) in.</td>
<td>33(\frac{1}{2}) in.</td>
</tr>
<tr>
<td>Pleated Fireside Chair</td>
<td>36 in.</td>
<td>19 in.</td>
<td>21(\frac{1}{2}) in.</td>
<td>36(\frac{1}{2}) in.</td>
</tr>
<tr>
<td>Rocker</td>
<td>26 in.</td>
<td>19 in.</td>
<td>21(\frac{1}{2}) in.</td>
<td>33(\frac{1}{2}) in.</td>
</tr>
</tbody>
</table>

| Unstuffed                |                |                    |               |               |
| Secretary, complete      | 18 x 32 x 72 inches. |
| Ladderback Chair         | 17\(\frac{1}{2}\) x 15 x 21\(\frac{1}{2}\) inches. |
| End Table                | 15 x 25 x 24 inches. |
| Coffee Table             | 15\(\frac{3}{8}\) x 19\(\frac{1}{2}\) x 18 inches. |

Dining Room

Following are the listing and measurements of a set of standard dining room furniture:

| Buffet                   | 21 x 66 inches. |
| Table                    | 42 x 60 inches. |
| China Cabinet            | 17 x 40 inches. |

Server 18 x 38 inches. Side Chair, seat 18 x 16 inches. Arm Chair, seat 19 x 17 inches.

It would be correct to say that the size of a given piece of furniture sets the price, provided we were comparing two pieces that are identical except as to size.

There are many other types of furniture but they would present nothing new in the use of tables of measurement.
Women's Wear. Hats are sold according to head size and they range from 20½ to 23½ inches, the increase being in quarter inches.

Lingerie, corsets, gowns, coats, etc., are sold chiefly according to bust and waist measurements. The length of most feminine garments is determined by Dame Fashion. Bust and waist measure range from 32 to 46 inches.

Men's Wear. Hats are sold according to the head size and are numbered from six to seven and three-quarters inches, the increase being in one-eighth inches.

Underwear, suits, and coats are made principally on the chest, waist, and length of trouser leg measurements. Breast and waist measures are 32, 34, 36, 40, 42, etc.

Children's Wear. Misses.

Coats and Rain Coats. There are three measures that are used in fitting coats for misses, and first in importance is the age scale of eight, ten, twelve, and fourteen years. Next in importance is the chest measurement, and the standard scale provides for 27, 29, 31, and 33 inches. Then the coat is measured for suitable lengths, which in children's sizes run to 32, 35, 37, and 39 inches.

Dresses. Standard dresses for misses aged seven, eight, ten, twelve, and fourteen are made to fit chest measures of 26, 27, 29, 31, and 33 inches, and come in lengths of 26, 28, 31, 34, and 37 inches respectively.

Hats. Hats for misses aged nine to fourteen range in head size from 20 to 21½ inches.

Lingerie. Lingerie and undergarments are sold according to
standard age sizes, the normal child being fitted by the article suited to his age.

Boys' Wear. Coats and Rain Coats. These are sold according to age sizes that range from six to seven years.

Suits. Suits are sold by age size, and the following figures give the standard dimensions or measurements in inches and years:

<table>
<thead>
<tr>
<th>Age to Order</th>
<th>Chest Measurement</th>
<th>Waist Measurement</th>
<th>Inseam Measurement</th>
</tr>
</thead>
<tbody>
<tr>
<td>5</td>
<td>24</td>
<td>23(\frac{1}{2})</td>
<td>18</td>
</tr>
<tr>
<td>6</td>
<td>24(\frac{1}{2})</td>
<td>24</td>
<td>19</td>
</tr>
<tr>
<td>7</td>
<td>25</td>
<td>24</td>
<td>20</td>
</tr>
<tr>
<td>8</td>
<td>26</td>
<td>24(\frac{1}{2})</td>
<td>21</td>
</tr>
<tr>
<td>9</td>
<td>26(\frac{1}{2})</td>
<td>25</td>
<td>22</td>
</tr>
<tr>
<td>10</td>
<td>27</td>
<td>25(\frac{1}{2})</td>
<td>23</td>
</tr>
<tr>
<td>11</td>
<td>27(\frac{1}{2})</td>
<td>26</td>
<td>24</td>
</tr>
<tr>
<td>12</td>
<td>28</td>
<td>27</td>
<td>25</td>
</tr>
<tr>
<td>13</td>
<td>29</td>
<td>27(\frac{1}{2})</td>
<td>26</td>
</tr>
<tr>
<td>14</td>
<td>30(\frac{1}{2})</td>
<td>28</td>
<td>27</td>
</tr>
<tr>
<td>15</td>
<td>32</td>
<td>29</td>
<td>28</td>
</tr>
<tr>
<td>16</td>
<td>33</td>
<td>30</td>
<td>29</td>
</tr>
</tbody>
</table>

Shirts and Blouses. These are sold according to standard age sizes of 6, 8, 10, 12, 12\(\frac{1}{2}\), 13, 13\(\frac{1}{2}\), 14, 14\(\frac{1}{2}\), 15, 15\(\frac{1}{2}\), 16.

Underwear. Underwear is sold either by the age size standard measurements, or by the chest measurements, which run from 24 to 34 inches.

Infants' Wear. Coats and capes are sold according to age sizes, from one to four years.

Dresses. Following are the standard measurements for age sizes:

<table>
<thead>
<tr>
<th>Age Sizes</th>
<th>Average Chest Measurement</th>
<th>Average Length</th>
</tr>
</thead>
<tbody>
<tr>
<td>2</td>
<td>21</td>
<td>20</td>
</tr>
<tr>
<td>3</td>
<td>22</td>
<td>22</td>
</tr>
<tr>
<td>4</td>
<td>23</td>
<td>23</td>
</tr>
<tr>
<td>5</td>
<td>24</td>
<td>24</td>
</tr>
<tr>
<td>6</td>
<td>25</td>
<td>25</td>
</tr>
</tbody>
</table>

Hats. These are sold according to age size standard measure-
ments running from one to six years.

Sweaters.—These can be bought for babies up to twelve months old. Then they are sold according to age sizes from two to six years.

Undergarments.—These range from two to six years according to the age sizes desired.

Floor # 1
Soda Fountain Department

Out-Going Goods.—By this term is meant the merchandise that the customer takes home.

Ice Cream.—This is sold on the basis of liquid measurements and can usually be bought in containers of the following sizes: 1 gill, 2 gills or half pint, 1 pint, and 1 quart, 1 gallon, 2 gallons, $2\frac{1}{2}$ gallons, 5 gallons.

Soda Water.—This is sold in bottles that contain 2 gills or a half-pint, pints, quarts, and two-quart bottles.

Fountain Syrups.—These are sold in one-half gallon, one-gallon, two-gallon, and five-gallon jugs.

Fountain Goods.—By fountain goods is meant the merchandise that is consumed at the fountain.

Ice cream is sold over the counter in two different-sized scoops, a # 16 and a # 12. The first-named is the smaller and signifies the number of portions that will be taken from a quart of ice cream. The second is the larger and gives twelve portions to the quart.

Soda Water.—Soda water is sold in glasses of different sizes, the size determining the price of the drink. The usual glasses hold six, eight, ten, twelve, and fourteen liquid ounces. When the drink is poured from a bottle, the price can be determined by comparing
the liquid contents of glass and bottle.

Candy and Pastry Department.

Pastry.--Three classes of pastry are sold, the first being that by the pound. A fixed rate per pound is determined and the purchaser may buy any part or any multiple of a pound.

The second is that which is sold by the piece. A fixed rate per piece is set and the customer may buy as many pieces as he desires. Most of the purchasing is done in dozen or half dozen lots.

The third class consists of pastry that is sold in pieces of large quantity. Pies or pound cake are good examples of this class. The latter may be sold by the slice or by use of the avoirdupois weight system. Pies, as a rule, are divided into six portions and the customer may buy the whole, undivided, or any portion or portions that he desires.

Candy.--Candy may be similarly purchased in units, in portions of pounds or fractions thereof, or by standard weight boxes.

Shoe Department.

Women's Shoes.--There are two measurements for shoes, one of length and one of width. The range for women's shoes is usually from three to eight. These figures do not designate the length in inches but are arbitrary measurements of length. Shoes also range according to width from A or even AA, very narrow, to E, which is very wide. Rubbers and galoshes usually require a size larger than the shoe.

Men's Shoes.--Men's shoes range in size from five to twelve and have widths from B to E. Rubbers and galoshes run a size larger than the shoe. Slippers may be had in any size, but all are wide. High boots and shoes are also ranged for price increases. They vary in height from ten to sixteen inches and are priced accordingly.
Misses' Shoes.---Girls' shoes range from 8½ to 11 in size and are usually sold in wide widths only.

Boys' Shoes.---Most of the shoes in this class are wide and run in size from 1 to 5½.

Children's Shoes.---These range from sizes 5 to 8, and are obtainable in wide widths only.

Infants' Shoes.---There are no half sizes in these shoes, which range from 0 to 4.

Domestic Department.

Yard Goods.---This section includes all yard goods used for dresses, coats, etc., and all kinds of material can be bought. As this section is entitled "Yard Goods," it should be stated that all material, regardless of width or thickness, is sold at a fixed rate per linear yard or fraction thereof. The material is usually 30, 32, 36, 39, 48, or 54 inches wide.

Other Goods.---Flannel, muslin, cotton, and other materials are in this group, which includes material sold at a fixed rate per yard regardless of width and thickness. The widths usually are 18, 24, 27, 30, and 36 inches. Duck, however, varies in price according to weight, there being two distinct weights of eight and ten ounces respectively.

Sheeting might also be classified under yard goods but there are certain differences to be considered. For example, the number of threads per square inch is a factor in determining the price of the material. A piece of sheeting whose count of threads is 68 x 72 to the square inch is more valuable than a piece having 60 x 64. In sheeting the price also increases with the width. Most of the sheeting has widths of 54, 63, 72, 81, 90, and 99 inches, and the wider
the cloth the higher the price at which it is sold.

**Comforters and Covers**—Comforters and comforter covers make use of avoirdupois measure. They are sold by the pound and the poundage runs from one to six pounds, the value increasing in the same ratio as the weight.

**Cotton Batting**—This is sold by weight and can be had in the 72 x 84 or 72 x 96 inch rolls, weighing from one to five pounds each.

**Bedspreads and Boudoir Sets**—These are sold singly or in sets and the price varies according to size and material.

**Sheets and Pillow Cases**—Sheets may be bought in many sizes, but the demand sizes are as follows:

- 54 x 90 inches
- 63 x 90 inches
- 72 x 90 inches
- 81 x 90 inches
- 63 x 99 inches
- 72 x 99 inches
- 81 x 99 inches
- 81 x 108 inches
- 90 x 108 inches

Sheets are sold in sets or singly, but the price seems to vary with the square inch surface area.

**Pillow cases** are usually obtainable in the following sizes:

- 42 x 36 inches
- 45 x 36 inches
- 45 x 38½ inches

The prices also vary according to the amount of material used.

**Oilcloth**—This may be of two kinds: That already cut and sold as a unit, and that sold at a fixed rate per linear yard. The latter may be 36, 48, or 54 inches wide.

**Table cloths**—Table cloths of the same material are priced according to the size, or square inches of surface. The standard sizes are:

- 60 x 80 inches
- 66 x 66 inches
- 72 x 70 inches
- 60 x 97 inches
- 66 x 84 inches
- 72 x 88 inches
- 72 x 105 inches

Table cloths are usually sold with napkins to match the pattern and these would be sold by the dozen or half dozen, in either of two sizes: 18 x 18 inches and 20 x 20 inches.
Towels.—Towels are of many kinds, from the lowly dish towel to the high quality Turkish towel. The prices vary according to material and size.

Face towels are either 6 x 6 inches or 8 x 8 inches. Dish towels are generally 18 inches wide and either 24 or 30 inches long. Turkish towels may be found in the following sizes: 19 x 38 inches, 20 x 40 inches, 50 x 50 inches, 18 x 36 inches and 17 x 34 inches.

Curtains.—Curtains may be of two types, sash curtains and full-sized. The former are really half-sized and are as a rule 20 x 36 inches or 20 x 33 inches. Full-sized curtains hang from the tops of the windows and generally reach the window sill. They can be obtained in sizes of 32 inches by $2\frac{1}{6}$ yards or 45 inches by $2\frac{1}{6}$ yards. The standard length is $2\frac{1}{6}$ yards. Curtain material ranging in length from thirty to fifty inches is priced per linear yard.

Portieres.—These vary in size, the standard sizes being 49 inches by $8\frac{1}{6}$ feet, 40 inches by $7\frac{1}{6}$ feet, and 50 inches by $8\frac{1}{2}$ feet.

Handkerchiefs.—Handkerchiefs are priced according to the value of the material of which they are made. Women's handkerchiefs have standard sizes of 9 x 9, 10 x 10, $9\frac{1}{2}$ x 10, and $9\frac{1}{2}$ x $9\frac{1}{2}$ inches. Men's handkerchiefs have the following sizes: $16\frac{1}{2}$ x $16\frac{1}{2}$, $15\frac{1}{2}$ x $15\frac{1}{2}$, $16\frac{1}{2}$ x 17 inches. Colored bandannas are either $19\frac{1}{2}$ x 20 inches or 20 x 20 inches. Boys' handkerchiefs are either 14 x 14 inches or $14\frac{1}{2}$ x $14\frac{1}{2}$ inches. Children's are 8 x 8 inches.

Scarfs.—These may be of many sizes but are usually 18 x 44 or 22 x 51 inches.

Miscellaneous.

Ribbons.—Ribbons may be purchased in varying widths, the price being figured on the linear footage of the piece bought.
Mending Cotton.--This is bought by the spool, each containing about 100 yards.

Spool Silk.--This is bought by the spool, each containing about 100 yards.

Ball Knitting Cotton is priced according to the number of strands that make up its thickness and is sold at a stated amount per ball.

Embroidery Cotton is sold by the skein, each containing approximately 8 7/10 yards.

Crochet Art Laces are sold per linear yard in widths of from one-half to one and three-eighths inches.

Rayon Tassels are sold singly according to the following lengths: 2\(\frac{3}{4}\), 4\(\frac{1}{2}\), and 8 inches.

Lace Edges are sold per linear yard, ranging from three quarters to seven inches.

Safety Pins are sold per dozen and the price range is determined by length.

These are just a few of the articles that are to be found in the domestic department of any department store.

Drug Department.

Most of the perfumes, powders, and toilet waters can be bought in containers of small, medium, and large size. This is true of the less expensive articles. The price range in the expensive perfumes and toilet waters is determined by the increase or decrease of the contents measured in liquid ounces. Small, medium, and large size denotes the cubical contents of the package.

Boric Acid is sold in one-half and one-pound packages.

Vaseline is sold in four-ounce jars, in one-pound cans, and in tubes.
Corn Plasters are sold six in a box.
Absorbent Digestive Tablets are sold in bottles of 100.
Empty capsules can be bought in two-gram and four-gram sizes, packed in boxes of 100.
Olive Oil can be bought in eight-ounce, one-pint, one-half gallon, and one-gallon cans.
Gauze is sold by the piece, five yards long and one yard wide.
Hospital Cotton is sold in one-pound rolls.
Gauze Bandage is sold in pieces two inches wide and ten yards long.
Gum Sheeting can be purchased in two sizes, thirty-six and forty-five inches square.

Jewelry Department.

Jewelry is largely a matter of taste, the material, quality, and size of a given piece determining its price.

In measuring gold, the standard of pure metal is twenty-four karats. Combination of gold with other metals reduces the number of karats and thus we find gold that ranges from ten to fourteen karats. In measuring silver, sterling silver is considered the best because that is the grade under which silver will have the longest life. Silver-plated is the term applied to an article that has been covered with a compound of silver. Solid silver is the term employed when an entire article is composed of a compound of silver.

Diamonds are measured by karats. In fact all precious metals and jewels are measured by Troy Weight. Jewelry is usually sold in individual pieces or sets.
Picture Department.

In this department are found all sizes and types of pictures and mirrors. Cheaper pictures are priced according to size, but in the better grades, subject matter, color, framework, and age will determine the price. Measurement applies only to standard sizes and these range from 8 x 10 to 18 x 30 inches.

Mirrors are divided into two classes. The ordinary mirror is priced according to its size and clearness or purity. The plate glass mirror is priced according to its shape, size, thickness and purity. There are as many sizes in mirrors as there are in pictures and the tendency in plate glass mirrors is to avoid square corners and make them appear as individual creations.

Hosiery Department.

Hose for the different members of the family are graded as to sizes and these are determined by the measurement from heel to toe, in inches. Women's hose grade from 8½ to 11; men's from 9½ to 12; Boys' from 7 to 10; girls' from 6 to 9½; children's from 1 to 7.

Trunk Department.

Bags.—All bags and suitcases are valued according to the material that is used and also the cubical contents, as well as the number of dividing compartments. The standard sizes are: 32 x 19 x 21, 36 x 20½ x 23, and 40 x 22 x 24½ inches.

Hat Boxes.—Square hat boxes are made in the following sizes: 16 x 14 x 8 inches. Round hat boxes have a diameter of eighteen inches, and a thickness of eight inches.

Refrigerators.—These are priced according to cubical contents
and ice capacity in pounds. The following schedule gives the standard measurements:

<table>
<thead>
<tr>
<th>Outside Size</th>
<th>Ice Capacity</th>
</tr>
</thead>
<tbody>
<tr>
<td>Width (in)</td>
<td>Depth (in)</td>
</tr>
<tr>
<td>30 1/2&quot;</td>
<td>16 1/2&quot;</td>
</tr>
<tr>
<td>31 1/2&quot;</td>
<td>18&quot;</td>
</tr>
<tr>
<td>34 1/2&quot;</td>
<td>18&quot;</td>
</tr>
</tbody>
</table>

The prices of electrical refrigerators are also based on the cubical capacity and the size of the motor. The measurements are approximately those above.

Flower Department.

All the artificial flowers are priced according to size and material. The size of the flower is determined by the number of its clusters—small, large, or medium.

Chinaware Department.

Dishes.—These are sold either as individual items or in sets. The following items make up a set: teacups and saucers, bread and butter plates six inches in diameter, pie plates seven inches, tea or breakfast plates eight inches, dinner plates nine inches, dinner plates extra large nine and three-quarter inches, soup plates eight inches, sauce dishes five inches, cereal dishes six inches.

Glassware is sold in sets and as individual items. A water set would have a two quart eight and one-half inch, tankard-shaped pitcher and six half-pint or eight-ounce glasses.

Home Furnishings.

Kettles.—These have a six, eight, ten, twelve, sixteen, and twenty-quart capacity and are priced according to cubical contents. The standard size is 16 x 11 1/2 x 8 inches.
Oval Roasters.—These are also priced according to cubical contents and the standard measurements are twelve inches diameter and seven inches depth.

Teakettles are graded according to their capacity which ranges from five to eight quarts.

Aluminum Ware is graded according to cubical contents and as most pieces are to hold liquids, the capacity is determined by liquid measurement.

Brushes, Mops, etc.—The ordinary floor brush is made in twelve, fourteen and sixteen inch lengths. Mops come in ten, twelve, and fourteen inch lengths. Fiber brooms are priced according to the square inch basis, 9 x 11 inches. Most brushes are sold on the length basis.

Furniture Polish is sold in pint and quart cans.

Boilers.—Solid copper boilers are priced according to capacity and cubical contents. A boiler holding fourteen and one-half gallons would have the following measurements: \(13\frac{1}{2} \times 23\frac{3}{4} \times 12\frac{3}{4} \) inches.

Hardware Department.

All hardware is first valued as to its material composition. Afterwards size is the important matter, as in hammers, files, saws, screws, hatchets, chains, screw drivers, planes, levels, etc. The size is determined by the length of the article.

Paper Department.

Crepe Paper.—This may be bought in rolls twenty inches wide and ten feet long, or two or three inches by ten feet.

Stationery.—This may be purchased in boxes containing a set of twenty-four sheets and twenty-four envelopes; or in blocks of
one hundred sheets or multiples of one hundred. Or it may be bought by the quire, ream, or bundle. Sometimes it is bought by the pound.

Wall Paper.—Wall paper is usually bought by the roll, the standard size being twenty inches by ten feet. The salesman estimates the number of rolls according to the square feet of the surface to be covered.

Paint Department.

Paint can be bought in $\frac{1}{2}$ gill, 1 gill, 1 pint, 1 quart, 2 quart, 1 gallon, 3 gallon, 5 gallon, 25 gallon, and 50 gallon quantities. The painter knows that one gallon of paint properly applied will cover 300 square feet of surface with two coats of paint.

Varnish is purchased in 1 pint, 1 quart, and 1 gallon cans. A gallon will cover 600 square feet of surface with one coat. Household cleaner and brush remover is sold in pound packages; putty, in two, four, and ten pound cans.

Electrical Department.

This department had the usual fans, toaster, percolaters, stoves, etc., the sole stipulation being that only current having a voltage of from 105 to 120 volts should be used. Lampshades varied in price according to the composition of the material and the diameter of the shade. Electric bulbs were ranged and priced according to the following table:

<table>
<thead>
<tr>
<th>Mazda</th>
<th>C. P.</th>
<th>Volt</th>
<th>Contact</th>
</tr>
</thead>
<tbody>
<tr>
<td>61</td>
<td>2</td>
<td>3-4</td>
<td>Single</td>
</tr>
<tr>
<td>63</td>
<td>3</td>
<td>6-8</td>
<td>Single</td>
</tr>
<tr>
<td>64</td>
<td>3</td>
<td>6-8</td>
<td>Double</td>
</tr>
<tr>
<td>61</td>
<td>3</td>
<td>12-16</td>
<td>Single</td>
</tr>
<tr>
<td>81</td>
<td>6</td>
<td>6-8</td>
<td>Single</td>
</tr>
<tr>
<td>82</td>
<td>6</td>
<td>6-8</td>
<td>Double</td>
</tr>
<tr>
<td>87</td>
<td>21-21</td>
<td>6-8</td>
<td>Single</td>
</tr>
<tr>
<td>1110</td>
<td>21</td>
<td>6-8</td>
<td>Double</td>
</tr>
<tr>
<td>1129</td>
<td>21</td>
<td>12-16</td>
<td>Single</td>
</tr>
<tr>
<td>1130</td>
<td>32</td>
<td>6-8</td>
<td>Single</td>
</tr>
</tbody>
</table>
SUMMARY
Gonzalez Padin Company
Analysis of Merchandise by Tables

LINEAR MEASURE.—Table I.

The Inch. 42 Items.

<table>
<thead>
<tr>
<th>Item</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>Hats</td>
<td>Stockings</td>
</tr>
<tr>
<td>Lingerie</td>
<td>Curtains</td>
</tr>
<tr>
<td>Underwear</td>
<td>Chains</td>
</tr>
<tr>
<td>Shirts</td>
<td>Planes</td>
</tr>
<tr>
<td>Suits</td>
<td>Levels</td>
</tr>
<tr>
<td>Dresses</td>
<td>Screw Drivers</td>
</tr>
<tr>
<td>Coats</td>
<td>Screws</td>
</tr>
<tr>
<td>Corsets</td>
<td>Safety Pins</td>
</tr>
<tr>
<td>Gowns</td>
<td>Rayon Tassels</td>
</tr>
<tr>
<td>Raincoats</td>
<td>Brushes</td>
</tr>
<tr>
<td>Capes</td>
<td>Mops</td>
</tr>
<tr>
<td>Sweaters</td>
<td>Files</td>
</tr>
<tr>
<td>Hose</td>
<td>Saws</td>
</tr>
<tr>
<td>Club Chairs</td>
<td>Ladderback Chairs</td>
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</table>

The Foot. 3 Items.

<table>
<thead>
<tr>
<th>Item</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>Crepe Paper</td>
<td>Wall Paper</td>
</tr>
<tr>
<td></td>
<td>Picture Wire</td>
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</tbody>
</table>

The Yard. 20 Items.

<table>
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<tr>
<th>Item</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>Ribbon</td>
<td>Coat Material</td>
</tr>
<tr>
<td>Rug Border</td>
<td>Curtain Material</td>
</tr>
<tr>
<td>Hall Runner</td>
<td>Flannel</td>
</tr>
<tr>
<td>Rug Fringe</td>
<td>Muslin</td>
</tr>
<tr>
<td>Cotton Carpet-</td>
<td>Cotton</td>
</tr>
<tr>
<td>Binding</td>
<td>Sheeting</td>
</tr>
<tr>
<td>Dress Goods</td>
<td>Oilcloth</td>
</tr>
<tr>
<td></td>
<td>Mending Cotton</td>
</tr>
<tr>
<td></td>
<td>Spool Silk</td>
</tr>
<tr>
<td></td>
<td>Embroidery Cotton</td>
</tr>
<tr>
<td></td>
<td>Crochet Art Lace</td>
</tr>
<tr>
<td></td>
<td>Lace Edges</td>
</tr>
<tr>
<td></td>
<td>Gauze</td>
</tr>
<tr>
<td></td>
<td>Gauze Bandages</td>
</tr>
</tbody>
</table>

The Size. 1 Item.

Shoes
### SQUARE MEASURE. -- Table II.

**The Inch.** 26 Items.

- Utility Mats
- Small Grass Rugs
- Small Tapestry Rugs
- Velvet Rugs
- Kitchen Tables
- Armchair Seats
- Side Chair Seats
- End Tables
- Coffee Tables
- Pillows
- Lampshades
- Pictures
- Mirrors
- Boudoir Sets
- Tablecloths
- Napkins
- Face Cloths
- Face Towels
- Dish Towels
- Turkish Towels
- Handkerchiefs
- Scarfs
- Gum Sheeting
- Sheets
- Pillow Cases
- Bedspreads

**The Foot.** 9 Items.

- Rag Rugs
- Linoleums
- Grass Rugs
- Velvet Rugs
- Tapestry Rugs
- Oval Rugs
- Refrigerators
- Axminster Rugs
- Beds

**The Yard.** 3 Items.

- Linoleums
- Felt Base Rugs
- Hall Runner

### LIQUID MEASURE. -- Table IV.

**The Gill.** 4 Items.

- Ice Cream
- Olive Oil
- Paint
- Varnish

**The Pint.** 6 Items.

- Ice Cream
- Soda Water
- Olive Oil
- Furniture Polish
- Paint
- Varnish

**The Quart.** 13 Items.

- Linoleum Paste
- Cement
- Ice Cream
- Tea Kettles
- Aluminum Ware
- Sodas Water
- Furniture Polish
- Fountain Syrups
- Oval Roasters
- Olive Oil
- Paint
- Kettles
- Boilers

**The Gallon.** 7 Items.

- Linoleum Paste
- Cement
- Ice Cream
- Fountain Syrup
- Varnish
- Olive Oil
- Paint

### TROY WEIGHT. -- Table VII.

**The Karat.** 2 Items.

- Gold
- Diamonds
AVOIRDUPOIS MEASURE. — Table VIII.

The Ounce. 3 Items.

<table>
<thead>
<tr>
<th>Pastry</th>
<th>Candy</th>
<th>Vaseline</th>
</tr>
</thead>
</table>

The Pound. 11 Items.

<table>
<thead>
<tr>
<th>Pastry</th>
<th>Candy</th>
<th>Putty</th>
</tr>
</thead>
<tbody>
<tr>
<td>Candy</td>
<td></td>
<td>Brush Remover</td>
</tr>
<tr>
<td>Comforter-Covers</td>
<td></td>
<td>Powdered Boric Acid</td>
</tr>
<tr>
<td>Cotton Batting</td>
<td></td>
<td>Vaseline</td>
</tr>
<tr>
<td>Stationery</td>
<td></td>
<td>Hospital Cotton</td>
</tr>
<tr>
<td></td>
<td>Candy</td>
<td>Vaseline</td>
</tr>
<tr>
<td></td>
<td>Vaseline</td>
<td>Household Cleaner</td>
</tr>
</tbody>
</table>

PAPER MEASURE. — Table XII.

<table>
<thead>
<tr>
<th>Sheets.</th>
<th>1 Item</th>
<th>Stationery</th>
</tr>
</thead>
<tbody>
<tr>
<td>Quire.</td>
<td>1 Item</td>
<td>Stationery</td>
</tr>
<tr>
<td>Ream.</td>
<td>1 Item</td>
<td>Stationery</td>
</tr>
<tr>
<td>Bundle.</td>
<td>1 Item</td>
<td>Stationery</td>
</tr>
</tbody>
</table>

Number of Items Measured 154

Number of Different Measures 18

Items Calling for More Than 1 Unit 2

(Items Involving Compound Units: Linoleum and Ax-Minster Rugs, feet and inches.)
THE PORTO RICAN DRUG COMPANY

Probably the largest drug store on the Island of Porto Rico is that operated by the Porto Rican Drug Company. It is located on the main plaza, occupies a floor space of over 10,000 square feet, and has probably the largest prescription business in the City of San Juan. It has the following departments: Prescription, Patent Medicines, Perfumery and Toilet Articles, Soda Fountain, Candy and Cigars, Miscellaneous Goods, Notions, Magazines and Stationery. To avoid repetition, this portion of the thesis will not discuss the candy, cigar, or soda fountain departments.

PRESCRIPTION DEPARTMENT. The Avoirdupois system of measurements is largely used in buying and selling drugs, although the metric system is rapidly coming into use because of its great convenience. In compounding prescriptions, the Apothecaries' grain is used for the most powerful drugs, twenty grains equaling a scruple, sixty grains a drachm, and 480 grains an ounce. The apothecaries' ounce is equal to the Troy ounce. In making up liquid prescriptions, the standard unit of measure is the wine gallon of 231 cubic inches, as contrasted with the ale, beer, or milk gallon of 282 cubic inches. Apothecaries have a special system of capacity measures based on the volume of the liquid pint, 28,875 cubic inches. One pint equals 16 fluid ounces, equals 128 fluid drachms, equals 7,680 minims. A minim is the smallest of the units of volume and is about 0.00376 cubic inches. The drop is not a fixed unit but is convenient for use in dispensing very small quantities of liquids. The ordinary form of drop pipette delivers about half a minim. The balance scales used in compounding prescriptions must be very delicately adjusted and possess a high degree of accuracy.
PATENT MEDICINES. Patent medicines are put up as liquids, solids, or powders, and have appropriate labels and cartons. They are sold as follows:

**Liquids.**
- Cod Liver Oil in eight and sixteen ounce bottles.
- Phillips' Milk of Magnesia in small, medium, and large sizes.
- Glycerin in eight ounce bottles.
- Borodentine in eight and twenty ounce bottles.
- Genuine Dickinson's Witch Hazel in one pint bottles.
- Rubbing Alcohol in one pint bottles.
- Liquid Corn Remover in a small bottle of one size only.

**Solids.**
- Lithia Tablets in bottles of forty tablets.
- Antiseptic Tablets in bottles of 100.
- Cocoa Butter in packages containing two and one-half pound cases.
- Zinc Oxide Ointment in two and four ounce jars.
- Porous Plasters are sold by units of one, two, and four in a package.
- Analgesic Balm in tubes of small, medium, and large size.
- Vaseline in four ounce jars, one pound cans, and small size tubes.
- Cascarets in tins of standard size.

**Powders.**
- Quinine Sulphate in one ounce tins.
- Jad Salts in small, medium, and large sizes.
- Antiseptic Powder in one pound Packages.
- Mentho-Sulphur in a standard size package.
PERFUMERY AND TOILET ARTICLES

Liquids.

Houbigant's perfumes in bottles containing one-quarter, one-half, one, four, eight, sixteen, and thirty-two ounce bottles.

Cheramy perfumes in one, two, four, eight, sixteen, and thirty-two ounce bottles.

Cheramy toilet waters in four and eight ounce bottles.

Pinaud's toilet waters in four, six, eight, twelve, fifteen and one-half, and twenty-four ounce bottles.

Roger and Gallet's perfumes in one-quarter, one-half, one, and two ounce bottles.

Roger and Gallet's toilet waters in one-quarter, and one-sixth litre bottles, and three and five ounce bottles.

Solids.

Soap is generally sold in units and the cake is the standard.

Lipsticks are sold in small-sized tubes or in metal containers.

Effervescent bath tablets in jars containing twenty-four tablets.

Vanishing Cream in jars or tubes, of three sizes, small, medium, and large.

Lady Jane's Deodorant in small, medium, and large size jars.

Powders.

Theatrical Face Powder is sold in in extra size boxes only.

Bath Salts in sixteen ounce packages or tins.

Face Powder in jars or packages. Talcum in bottles or tins.
MISCELLANEOUS GOODS

Absorbent Cotton is sold in one pound antiseptic rolls.
Red Cross Gauze in lengths of five yards, one yard wide.
Sanitary Pads in packages of twelve.
Adhesive Plaster in rolls from one to twelve inches.
Gauze Bandage in pieces ten yards long by two inches wide.
Metal Hot Water Bottles, with diameter of seven and one-half inches and a capacity of one quart.
Rubber Catheter in lengths of twelve, fourteen, sixteen, eighteen, twenty, and twenty-two inches.
Rubber Gloves in pairs, of large size.
Rubber-coated Sheeting in various sizes, 27 x 27, 36 x 36, 45 x 45, 54 x 54, 27 x 27 inches.
Syringes have a capacity of one pint and nine ounces.
Rubber Hot Water Bottles have either a two or four quart capacity.
Elastic Bandages can be bought in two and one-half or three inch widths, with a stretch of fifteen feet.
Toilet Sets with six, eight, ten, and twelve pieces are sold.
Tooth Brushes for men, women, and children are sold with hard, medium, or soft bristles.
Shaving Cream and Dental Cream sell in tubes of small, medium, and large sizes.
Hair Gloss may be bought in bottles or jars containing four and eight ounces.
Combs are sold in lengths of four and one-half, five, six, seven, eight, and nine inches.
Hair Brushes in six and eight inch lengths.
MISCELLANEOUS GOODS (Continued)

Scissors can be purchased in lengths of seven and seven and one-half inches.

Razors are priced according to the size of the blade. Standard sizes are one-half, five-eighths, and three-quarter inches wide.

Safety Razors are sold in units with a variation in size of from four and one-half to five and one-half inches. Razor blades come in packages of five and ten, and razor straps in two lengths of twenty-two and twenty-four inches respectively.

NOTION DEPARTMENT

This department carries a full line of toys, cameras, souvenirs, miscellaneous articles for the home, and any other special articles that can be sold.

MAGAZINES AND STATIONERY

A full line of magazines and books of fiction is sold. Stationery is packed in boxes containing twenty-four sheets of paper and twenty-four envelopes. In this department miscellaneous stationers' supplies can also be found.

SUMMARY

Porto Rican Drug Company

Analysis of Merchandise by Tables

LINEAR MEASURE. — Table I.

<table>
<thead>
<tr>
<th>The Inch</th>
<th>3 Items</th>
</tr>
</thead>
<tbody>
<tr>
<td>Rubber Catheter</td>
<td>Scissors</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>The Foot</th>
<th>2 Items</th>
</tr>
</thead>
<tbody>
<tr>
<td>Adhesive Tape</td>
<td>Elastic Bandages</td>
</tr>
</tbody>
</table>
LINEAR MEASURE.—Table I. (Continued)
The Yard. 2 Items.
Red Cross Gauze Gauze Bandages

SQUARE MEASURE.—Table II.
The Inch. 1 Item.
Rubber-Coated Sheeting

CUBIC MEASURE.—Table III.
The Inch. 7 Items.
Effervescent Bath Salts Metal Hot Water Bottles
Vanishing Cream Rubber Hot Water Bottles
Face Powder Syringes
Talcum Powder

Note: The above estimates are based on the cubical contents of the container.

LIQUID MEASURE.—Table IV.
The Ounce. 5 Items.
Borodentine Roger and Gallet’s Perfumes
Houbigant’s Perfumes Roger and Gallet’s Toilet Waters
Cheramy Perfumes

The Gill. 5 Items.
Cod Liver Oil Houbigant’s Toilet Waters
Cheramy Toilet Waters Glycerin
Pinaud’s Toilet Waters

The Pint. 6 Items.
Cod Liver Oil Houbigant’s Toilet Waters
Witch Hazel Cheramy Toilet Waters
Rubbing Alcohol Pinaud Toilet Waters

The Quart. 2 Items.
Cheramy Toilet Waters

AVOIRDUPOIS MEASURE.—Table IX.
The Ounce. 4 Items.
Zinc Oxide Ointment Quinine Sulphate
Vaseline Hair Gloss
AVOIRDUPOIS MEASURE.--Table IX. (Continued)

The Pound. 5 Items.

<table>
<thead>
<tr>
<th>Cocoa Butter</th>
<th>Antiseptic Powder</th>
</tr>
</thead>
<tbody>
<tr>
<td>Vaseline</td>
<td>Bath Salts</td>
</tr>
<tr>
<td>Absorbetnt Cotton</td>
<td></td>
</tr>
</tbody>
</table>

UNIT MEASURE.--Table XIII.

Units. 13 Items.

<table>
<thead>
<tr>
<th>Lithia Tablets</th>
<th>Sanitary Pads</th>
</tr>
</thead>
<tbody>
<tr>
<td>Antiseptic Tablets</td>
<td>Rubber Gloves</td>
</tr>
<tr>
<td>Porous Plaster</td>
<td>Toilet Sets</td>
</tr>
<tr>
<td>Cascarets</td>
<td>Tooth Brushes</td>
</tr>
<tr>
<td>Jad Salts</td>
<td>Safety Razors</td>
</tr>
<tr>
<td>Soap</td>
<td>Safety Razor Blades</td>
</tr>
<tr>
<td>Lipsticks</td>
<td></td>
</tr>
</tbody>
</table>

Number of Items Measured 55
Number of Different Measures 12
Items Calling for More Than 1 Unit 1

(Item Involving a Compound Unit: Syringes, pint and ounce.)
The largest wholesale grocery house is the Sobrinos de Villamil Sen Company located in Rio Piedras, Puerto Rico. It occupies the first floor of a very large building having approximately 40,000 feet of floor surface. It has also a retail department but this particular study will consider only the wholesale.

In buying for wholesale trade the quantity depends on the turnover of the goods and the rate at which they deteriorate, together with the time normally required for receiving the goods after the order has been placed. However slow the turnover of the merchandise may be, the company must not lose sight of its main function, which is selling at wholesale. In order to show a profit on slow-moving merchandise, it must of necessity secure better prices, buy in large quantities, and store the goods.

Goods that spoil or deteriorate, such as, potatoes, onions, etc., are bought on a continuous shipping policy; That is, a contract is made for the entire year's purchase, the goods to be delivered at a certain rate per week or month. This assures the company of a better buying price and a continuous periodic supply to meet the demand.

In importing goods from a foreign country and from the United States, consideration must be given to the time it would take for the order to be received by the factory, and the time required for the shipment to arrive after it leaves the factory. In purchasing from Spain and Germany, it has been the policy of the company to order twice a year enough goods to carry them for a six months' period.

The wholesale house serves a very large number of retail grocers. A display is made of all the goods carried by the company and
the retailer may order any size lots that he wishes.

The profit in wholesaling is determined by the difference between the purchase price of the goods bought in large quantities and the selling price of the same goods in small quantities.

I have listed the greater part of the goods carried by this company, noting the number and size of each retail unit and the amount that the wholesale house ordinarily purchases at a single time.

**Packed in Sacks or Bags.**

Cow fodder is packed in 100 pound bags and 100 bags are purchased at a time.

Corn in 200 pound bags, 500 at a time.

Beans in 100 pound bags, in lots of 1,000 bags.

Potatoes in 150 pound bags and 20 bags are received weekly from the United States.

Onions in 100 pound bags, 10 bags weekly from the United States.

Coffee in 200 pound bags, 50 at a time.

Rice in 100 pound bags, the order being for 2,000 or 3,000 bags.

Brown sugar in 250 pound bags, the order being 100 to 1,000 bags, according to the time at which it is placed.

White sugar in 100 pound bags, 500 bags per order.

Chicken feed in 100 pound bags, 100 at a time.

Cornmeal in 100 pound bags, 100 at a time.

Flour in 200 pound bags, 100 bags at a time.

Walnuts are received from Spain in bags of 120 pounds, and because they spoil easily, they are ordered 10 bags at a time.

Salt in 100 or 125 pound bags, each order for 100 bags.

Rope one inch thick is bought in rolls contained in sacks. Each holds 60 or 65 pounds and 100 are ordered at a time.
Pepper is bought in 110 pound bags, four at an order.
Cloves in 110 pound bags, ordered two at a time.
Garbanzos, or Spanish beans, are bought in 220 pound bags, 50 at each purchase.

**Packed in Barrels.**

Earthenware made in Germany is packed in barrels containing 20 dozen items of different styles and shapes. Because of the time required to fill an order, 100 barrels are ordered twice a year.

German earthenware, cups and saucers only, sixty dozen of each per barrel, ordered in 100 barrel lots.

Picnic hams are packed in barrels of 200 pounds each, ordered in 25 barrel lots.

Salt pork, 200 pounds per barrel, 50 barrels per order.
Codfish, 448 pounds per barrel, 20 barrels at a time.

**Packed in Wooden Cases.**

Lard is packed in tins containing 37 pounds each and two tins to a case. It is ordered in 100 case lots.

Crackers are packed in cases containing six tins of five pounds each, and the order is generally for 50 cases.

Raisins in cases, 25 pounds each, the order 100 cases.
Sardines in cases containing 100 tins of \( \frac{3}{2} \) ounces each. The order is for 50 cases at a time.

Peaches are packed in a case containing six dozen eight-ounce cans and 50 cases to the order; also two dozen of one pound four ounce tins, 25 cases to the order.

Pears are packed in cases containing 24 one pound four ounce cans and the order is usually for 100 cases.

Peas are ordered in 100 case lots of 100 six-ounce cans each.
Eagle Condensed Milk is ordered in 50 case lots, each containing 48 one-pound tins.

Red Holland Cheese is ordered in 200 case lots, each holding 12 cheeses weighing approximately three or three and one-half pounds.

Sausages are ordered in 25 case lots, each holding 12 four and one-half pound cans.

Beets are ordered in 50 case lots, each holding 24 one-pound four ounce cans.

All soaps are ordered in 25 case lots of 100 bars each.

Vinegar is ordered in 50 case lots; in those holding pint bottles there are three dozen; in those holding quarts, one dozen.

Oatmeal is packed 36 cartons to a case, 25 cases to the order.

Candles are packed in cases containing either 16 or 25 pounds and are bought in 50 case lots.

Deviled meats are bought in 50 case lots, each containing four dozen 3½ ounce tins.

Malt Nutrine Beer is bought in 100 case lots, each containing 24 twelve-ounce bottles.

Olives are packed 6½ gallon bottles to the case, with 50 cases to the order.

Salmon is packed in four dozen one-pound tins to the case and is ordered in 50 or 100 case lots.

Baking Powder is packed 12 tins of five pounds each, ordered 10 cases at a time.

Spanish Olive Oil is packed in cases holding 20 cans of five gallons each, 100 cases being the usual order.

Babbitt's Lye, four dozen tins to a case and 50 cases per order.

Uneeda Biscuit are packed six 3½ pound tins to a case and 50 cases are ordered at once.
"Banderlas," or soup paste, is packed 25 packages holding 400 grams each to a case and ordered in 100 case lots.

Enamelware is packed in cases holding 25 dozen items and ordered in 50 case lots.

Carnation Milk is packed in six dozen small or four dozen large tins to a case and ordered 200 cases at a time.

Dutch Cleanser, 50 tins per case and 50 cases per order.

White Rock Ginger Ale, 100 pint bottles per case, ordered in 15 case lots.

Tomatoes are packed in 24 one-pound two-ounce cans to a case, ordered 100 cases at a time.

Dried prunes are packed 16 five pound tins to a case, ordered in 50 case lots.

Kerosene Oil is packed in two five-gallon tins to a case and ordered in 100 case lots.

Oleomargarine is packed in 10 five-pound cans to a case, ordered in 25 case lots.

Octagon Soap Powder is packed four dozen one-pound boxes to a case, ordered in 50 case lots.

Garlic is ordered in lots of 25 to 50 crates, each containing 28 or 32 stalks of garlic, each stalk having on it 100 garlics.

Safety Matches are ordered in 100 case lots, each containing five gross of boxes with approximately 50 matches in each box.

Olive Oil is ordered in 50 case lots, each containing 20 tins of 1,600 grams each.

Blue Soap is packed in cases containing 20 five-pound bars, and the usual order is fifty cases.

Mortono Table Salt is packed in cases containing 24 two-pound Cartons. Each order is for 25 cases.
Cornstarch is packed in cases containing 80 four-ounce packages. The usual order is 100 cases.

Cedar Oil is packed in cases of two dozen one-pint bottles, and 50 cases is the usual order.

Libby's Corned Beef is packed in cases containing four dozen one-half pound tins, or three dozen three-quarter pound tins, each order being for 50 cases.

**Packed in Cartons.**

Campbell's Soups are packed in 48 ten-ounce cans to a carton, each order being 100 cartons.

Beer is packed in cartons of two dozen twelve-ounce bottles, the usual order, 100 cartons.

**Packed in Bundles.**

Wrapping paper of all descriptions and sizes is bought in 100 bundle lots weighing 50 pounds each. Paper bags are bought in 50 bundle lots containing a certain quantity of a certain style of bag. One bundle would contain the following:

<table>
<thead>
<tr>
<th>Number</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>1,000</td>
<td>12 pound bags</td>
</tr>
<tr>
<td>2,000</td>
<td>6 pound bags</td>
</tr>
<tr>
<td>3,000</td>
<td>4 pound bags</td>
</tr>
<tr>
<td>6,000</td>
<td>2 pound bags</td>
</tr>
<tr>
<td>12,000</td>
<td>1 pound bags</td>
</tr>
</tbody>
</table>

**SUMMARY**

Sobrinos de Villamil Sen Company

Analysis of Merchandise by Tables

**CUBIC MEASURE.**—Table III.

The Inch. 4 Items.

Oatmeal Babbitt's Lye Carnation Milk Dutch Cleanser

**LIQUID MEASURE.**—Table IV.

The Ounce. Two Items.

Malt Nutrine Beer Beer
LIQUID MEASURE.—Table IV. (Continued)

The Pint. 3 Items.

Vinegar White Rock Ginger Ale Cedar Oil

The Quart. 2 Items.

Vinegar Olive Oil

The Gallon. 3 Items.

Olives Spanish Olive Oil Kerosene Oil

AVOIRDUPOIS MEASURE.—Table IX.

The Ounce. 6 Items.

Deviled Meat Sardines Cornstarch
Soup Paste Peaches Campbell's Soups

The Pound. 27 Items.

Potatoes Garbanzos Codfish
Brown Sugar Sausages Crackers
Walnuts Beets Raisins
Rope Candles Peaches
Pepper Uneda Biscuit Pears
Baking Powder Red Holland Cheese Tomatoes
Condensed Milk Dried Prunes Oleomargarine
Clove Lard Libby's Corned Beef
Blue Soap Octagon Soap Powder Table Salt

The Hundredweight. 13 Items.

Cow Fodder Salt
Corn Picnic Hams
Beans Salt Pork
White Sugar Rice
Corn Meal Coffee
Flour Onions
Chicken Feed

Number of Items Measured 60
Number of Different Measures 8
Items Calling for More Than 1 Unit 0
The Plaza Provision Company is the largest grocery and meat store in San Juan or on the Island of Porto Rico. It is an extremely large store and is divided into two parts, in one of which meats and other refrigerated articles are sold, and in the other groceries, candy, and cigars. The store caters to an American clientele and therefore most of the articles that it carries are from the United States.

The sales department is divided into four sections in which are sold, respectively, meats, groceries, candy, cigars, and vegetables.

Groceries may be sold in the following ways: packaged, canned, bottled, and loose. The study of each of these will be taken up.

PACKAGED.

Rolled oats are bought in cartons of one pound, four ounces.
Shredded Wheat is sold in cartons of twelve ounces.
Pepper is bought in one-ounce, two-ounce and five-ounce packages.
Sugar in one-half, one, and two-pound packages.
Salada Tea in one-half and one-pound packages.
Soap is generally bought by the bar in three sizes, small, medium, and large. It may also be bought in the form of flakes in five-ounce or one-pound packages.
Toilet Paper comes in two sizes of rolls, one with 650 sheets and one with 1,000.
Raisins are sold in fifteen-ounce packages.

CANNED.

Coffee may be bought in one or two-pound cans.
Baking Powder is sold in eight-ounce cans or 226.796 grams and in one-pound and ten-pound packages or 4.535.9 grams.

Olive Oil is sold in one-half and one-litre cans or four and eight fluid ounces; or in one-pint, one-quart, or one-gallon containers.

Sliced Beef is sold in $3\frac{1}{2}$ ounce or 99.22 gram cans.

Corn is sold in cans containing one pound four ounces.

Fruit Cocktails may be bought in one-pound four-ounce cans.

Horlick's Malted Milk is sold in three sizes, small, medium, and large.

Maple Syrup may be bought in one-pound, two and one-half pound, and one-gallon cans.

Tea Balls are sold in cans containing 1.45 ounces, 2.90 ounces, and 7.25 ounces.

Instant Postum is sold in cans containing 113,398 grams.

Baker's Cocoa is sold in cans containing one-half, one, and two pounds.

Cleaning Fluid may be bought in cans containing one pint or one quart.

Fly Spray is sold in cans containing thirty-two fluid ounces.

Brillo comes in three sizes, small, medium, and large.

Bonami cleaning powder is sold in 340 gram cans.

Flash is sold in eleven-ounce cans.

Campbell's Soups are sold in 10.5 ounce or one-pound two-ounce cans.

Crackers may be bought in one-half, one, two, five, etc. pound tins.

**BOTTLED**

Poland Water is sold in bottles containing one pint ten fluid ounces.

White Rock Ginger Ale, in bottles containing six and one-half fluid ounces, or 1,192 cubic centimeters.
Grape Juice is sold in pints and quarts.
Beer is bottled at ten fluid ounces.
Tomato Juice can be bought in bottles holding ten fluid ounces.
Cleaning Fluid is bought in two sizes, containing eight and eighteen fluid ounces respectively.
Heinz's Pickles come in bottles containing six and one-half fluid ounces net.
Welch's Preserves contain one fluid pound.
Mayonnaise is put up in three and eight ounce bottles or one fluid pint.
DelMonte Catsup contains fourteen ounce to a bottle.
Salted Nuts can be bought in five and ten ounce bottles.
Vinegar is bought in pint bottles.
Vanilla Extract, in four and ten fluid ounce bottles.
Mazola may be bought in bottles containing four fluid ounces.
Bluine is sold in bottles containing four fluid ounces.
Ammonia, in ten fluid ounce bottles.
Olive oil may be bought in bottles containing four and eight fluid ounces.
Flavoring wines may be bought in bottles of nine, twelve, and eighteen ounces.

**LOOSE.**

Crackers may be bought by the pound or fraction thereof.
Cakes may be bought in units of one or six, or in dozens; or by the pound, or according to size.
Bread is generally bought by the loaf, and rolls by the dozen or parts thereof.
Flour and sugar are bought by the pound.
Coffee and tea, by the pound.
The pound is the unit of measure for beans, rice, and peas. Kerosene is sold by the gallon, but as the customer may bring in a gallon can to be filled, it may be considered loose.

Spaghetti and Macaroni are sold by the pound.
Cheese is sold by the pound, but some kinds are sold as a unit.
Yeast cakes are sold in units of one.
Fly paper and rolls are sold in units of one.
Eggs are sold by the dozen.
Butter is sold by the pound.

**VEGETABLES.**

Vegetables may be divided into two classes,—fruits and produce.

**Fruits.**

Watermelons may be sold either by weight or by units and parts of units.
Bananas are sold by weight, or by the dozen, or as a unit.
Oranges, limes, and lemons are generally sold by the dozen or the unit.
Avocados are sold in units by the dozen.
Figs, if fresh, are sold by the unit of the dozen; if loose, they are sold by the pound.
Dates are sold by the pound.
Apples and Pears are sold by the dozen.
Strawberries and similar fruits are sold by the basket.
Cherries are sold by the pound.
Pineapples are sold in units of one.
Grapefruit are sold in units of one, or by the dozen.
Grapes and nuts are sold by the pound.

**Produce.**

Cucumbers are sold in units of one.
Peppers may be sold by the pound or by the dozen.
Onions are sold by the pound.
Potatoes are sold by one-half and one peck, and by the bushel.
Cranberries may be bought by the pound or the bushel.
Parsley is sold by the pound.
Cooking apples are sold by the pound or the bushel.
Squash is sold by the pound.
String beans and peas are sold by the pound.
Tomatoes are sold by the pound or bushel.
Celery is sold by the size of the bunch.
Lettuce is sold by the head and it is generally the size that determines the price.
Cabbage is sold by the pound.
Radishes are sold by the bunch.
Beets are sold by the bunch.

CANDY AND TOBACCO.
The candy and tobacco department did not carry a full line of stock at the time this investigation was made. However, I shall enlarge on the items found by my inspection of the same departments in other stores.

Candy. This may be divided into what is sold in boxes, in bars, loose, and in jars.

Boxed. The box candy was priced according to the net weight of chocolates and bon bons, and the boxes ranged from one-quarter of a pound to ten pounds.

Jars. Jar candy is sold in net weights of one-quarter, one-half, and one pound.

Bars. Bars of chocolate in two, four, eight, twelve, and sixteen ounce sizes.
Loose. Loose candy was sold by using the pound as a unit, or in varying numbers of pieces.

TOBACCO.

This department included cigars, cigarettes, and tobacco.

Cigars. Cigars are sold in units of one and boxes of five, ten, twenty-five, and one hundred.

Cigarettes are sold in packages of fifty, one hundred, or two hundred. They also may be sold in cartons containing ten packages of twenty each.

Tobacco. Tobacco is sold in cans and jars, in packages, in plugs, and loose. The jars hold one-half, one, and two pounds, or sometimes the tobacco is sold by weight, using the pound as the measure. Loose tobacco is sold by weight or according to the size of the box, and the plug is a piece that has been cut by cubical measurement.

MEAT DEPARTMENT.

Most meats are sold by the pound. They are either already packed, or they are to be cut. In either case, the pound is the standard on which the charge is based.

Fish is also sold by the pound, but in the case of fish and clams two methods of sale are used. If they are sold in the shell it is either by the dozen or by the pint, quart, and peck. If out of the shell, they are sold by the pound.

-------------------

SUMMARY

The Plaza Provision Company

Analysis of Merchandise by Tables

LIQUID MEASURE.—Table IV.

The Ounce. 13 Items.

Campbell's Soups
White Rock Ginger Ale
Beer

Flavoring Wines
Olive Oil
Cleaning Fluid

Ammonia
The Ounce. (Continued)

<table>
<thead>
<tr>
<th>Heinz's Pickles</th>
<th>Vanilla Extract</th>
</tr>
</thead>
<tbody>
<tr>
<td>Welch's Preserves</td>
<td>Mazola</td>
</tr>
<tr>
<td>Delmonte Catsup</td>
<td>Bluine</td>
</tr>
</tbody>
</table>

The Pint. 6 Items.

<table>
<thead>
<tr>
<th>Olive Oil</th>
<th>Vinegar</th>
</tr>
</thead>
<tbody>
<tr>
<td>Cleaning Fluid</td>
<td>Grape Juice</td>
</tr>
<tr>
<td>Poland Water</td>
<td>Mayonnaise</td>
</tr>
</tbody>
</table>

The Quart. 4 Items.

<table>
<thead>
<tr>
<th>Olive Oil</th>
<th>Fly Spray</th>
</tr>
</thead>
<tbody>
<tr>
<td>Cleaning Fluid</td>
<td>Grape Juice</td>
</tr>
</tbody>
</table>

The Gallon. 2 Items.

| Maple Syrup | Kerosene |

DRY MEASURE. Table VI.

The Pint. 3 Items.

| Shell Fish | Strawberries | Cranberries |

The Quart. 8 Items.

<table>
<thead>
<tr>
<th>Shell Fish</th>
<th>Cooking Apples</th>
</tr>
</thead>
<tbody>
<tr>
<td>Strawberries</td>
<td>String Beans</td>
</tr>
<tr>
<td>Potatoes</td>
<td>Peas</td>
</tr>
<tr>
<td>Cranberries</td>
<td>Tomatoes</td>
</tr>
</tbody>
</table>

The Peck. 6 Items.

<table>
<thead>
<tr>
<th>Shell Fish</th>
<th>Cooking Apples</th>
</tr>
</thead>
<tbody>
<tr>
<td>Peas</td>
<td>String Beans</td>
</tr>
<tr>
<td>Potatoes</td>
<td>Tomatoes</td>
</tr>
</tbody>
</table>

The Bushel. 5 Items.

<table>
<thead>
<tr>
<th>Potatoes</th>
<th>String Beans</th>
</tr>
</thead>
<tbody>
<tr>
<td>Peas</td>
<td>Tomatoes</td>
</tr>
<tr>
<td>Cooking Apples</td>
<td></td>
</tr>
</tbody>
</table>

AVOIRDUPOIS MEASURE. Table IX.

The Ounce. 11 Items.

<table>
<thead>
<tr>
<th>Pepper</th>
<th>Flash</th>
<th>Sliced Beef</th>
</tr>
</thead>
<tbody>
<tr>
<td>Soap</td>
<td>Bonami</td>
<td>Salted Nuts</td>
</tr>
<tr>
<td>Raisins</td>
<td>Instant Postum</td>
<td>Shredded Wheat</td>
</tr>
<tr>
<td>Baking Powder</td>
<td>Tea Balls</td>
<td></td>
</tr>
</tbody>
</table>
AVOIRDUPOIS MEASURE. (Continued)

The Pound. 40 Items.

- Coffee
- Rolled Oats
- Sugar
- Salada Tea
- Soap
- Fruit Cocktail
- Maple Syrup
- Baker's Cocoa
- Crackers
- Cakes (Pound)
- Watermelons
- Bananas
- Cherries
- Squash

Grapes
Nuts
Peppers
Cooking Apples
String Beans
Peas
Tomatoes
Celery
Flour
Tea
Beans
Rice
Candy
Tobacco

Peas
Meats
Spaghetti
Macaroni
Cheese
Butter
Figs
Cabbage
Dates
Onions
Fish
Parsley

UNIT MEASURE. Table XIII.

The Unit. 18 Items.

- Toilet Paper
- Soap
- Horlick's Malted Milk
- Bread
- Radishes
- Cheese
- Candy
- Pineapples
- Cucumbers

Brillo
Lettuce
Beets
Cakes
Yeast Cakes
Watermelons
Cigars
Cigarettes
Peppers

The Dozen. 11 Items.

- Rolls
- Eggs
- Avocados
- Figs
- Apples
- Grapefruit

Bananas
Oranges
Limes
Lemons
Pears

Number of Items Measured 127

Number of Different Measures 12

Items Calling for More Than 1 Unit 4

(Items Involving Compound Units: Canned Corn, Campbell's Soups, and Rolled Oats, pound and ounce. Poland Water, pint and ounce.)
RAPHAEL MARGARIDA AND COMPANY

This company is the largest manufacturer of furniture on the Island of Porto Rico. It manufactures for wholesale and retail trade and maintains a large retail store in the City of San Juan. The plant itself has a ground area of about two acres, and half of it is covered by shed containing wood that is ageing.

The processing of the furniture takes place in the factory. The wood is cut to the desired forms on the first floor, assembled into pieces of furniture on the second, and completely finished and stained on the third. It is then sent to the basement for drying.

KINDS OF WOOD USED.

Mahogany.—This is the most popular wood because it is very plentiful in Porto Rico and Santo Domingo. The wood from the latter place is the better grade.

Laurel Sabino.—This is a native wood that is a very good substitute for mahogany. It has many of the qualities of mahogany.

Cedar.—Cedar wood is imported from the United States and used for making cedar chests.

Nuez Moscada.—This is also a native wood and is used for the less expensive furniture.

Other Kinds.—Together with the four kinds just mentioned, furniture is made to order out of any desired woods, walnut and oak being the prime favorites.

There is a very small insect that eats away the wood by boring holes in it. Mahogany and laurel sabino seem to be about the only woods that resist this borer and therefore they are used for most of the furniture that is manufactured in this region.

The mahogany found on the island is not so good as that found in Santo Domingo and therefore most of it is imported from the latter
place. This is very expensive because of the taxes levied by the government on raw material. The taxes are 10 % ad valorem when the wood is rough, and 15 % when it is board timber. The wood is brought in the form of logs and the price varies according to the cubic feet per log.

In order to manufacture furniture it is necessary to have certain supplies. Glue, varnish, screws and nails are imported from the United States. Cretonne, damask, braid, buttons, etc., are purchased in part locally and in part from the States. The marquetry is imported from Germany and most of the furniture worked with it results in a complete and distinct style.

PROCESS OF MANUFACTURE.

All woods after being cut need one and one-half to two years in which to dry. If fresh wood were to be used, it would either shrink or expand, and this would injure the connections and joints. From the forests or from the docks the wood is taken to the drying sheds where it is stored for one and one-half to two years. It is in the form of logs approximately 18 inches wide and 18 inches thick, and 10 to 15 feet long. When the drying process has been completed, the logs are cut into boards of standard size and placed in racks or bins until they are needed.

All furniture is made from designs and each piece has its distinct and separate design. In the designing room there are designs for all types of furniture and for the various style periods. A few of these are: the Spanish Renaissance, Italian Renaissance, Gothic, Grec-Roman, Jacobean, William and Mary, Tudor, and Elizabethan.

As the orders are received the furniture is manufactured. The design and type of furniture having been determined, it is cut by machinery. Then the parts are sent to the second floor where the pieces are assembled. After assembling, it goes to the third floor
where it is finished, polished and varnished. The finishing process is as follows: first, a preparation called a pore filler is applied to the wood to give it a smooth surface; then a first coat of varnish is applied, and finally a coat of duco varnish is spread on with a spray gun. The furniture is then stored in the basement for drying.

MEASURES USED.

Wood or lumber is bought in the rough, or in slabs. In either case, the cubic measure of the lumber is used to determine its value.

In following the design, measurements of length, breadth, and width are called for. These must be very carefully ascertained and the machines used for cutting must be very accurate.

Varnish is bought in amounts determined by calculating the quantity that will cover the square surface.

The furniture is priced according to its solidity. That is to say, a fairly thick all around board would result in a higher price for the finished product than would be the case if thin board were used. It sometimes seems as if furniture were sold by weight because the heavy pieces seem to command a higher price than the light ones.

In calculating the value of the moulding used, linear measure is employed because moulding is bought by the linear foot. Similarly the value of straw backs is determined according to the number of square feet of the material used because it is bought by the square foot.

Cretonne and damask are bought by the square yard.

Nails and screws, by the pound.

Braid by the linear foot.

Buttons by the dozen.

Marquetry by the square foot.

Plate glass is bought by the square foot with a further consideration given to thickness.
Glass is bought by the square foot.
Putty and Glue, by the pound.
Sandpaper, by the square foot or by standard size pieces.
Labor is bought by standard weekly payrolls.
Furniture is sold by the piece or in sets.

---

**SUMMARY**

Rafael Margarida and Company

**Analysis of Merchandise by Tables**

**LINEAR MEASURE.**—Table I.

<table>
<thead>
<tr>
<th>The Foot</th>
<th>2 Items</th>
</tr>
</thead>
<tbody>
<tr>
<td>Moulding</td>
<td>Braid</td>
</tr>
</tbody>
</table>

**SQUARE MEASURE.**—Table II.

<table>
<thead>
<tr>
<th>The Foot</th>
<th>4 Items</th>
</tr>
</thead>
<tbody>
<tr>
<td>Straw Backs</td>
<td>Sandpaper</td>
</tr>
<tr>
<td>Marquetry</td>
<td>Plate Glass</td>
</tr>
<tr>
<td>The Yard</td>
<td>2 Items</td>
</tr>
<tr>
<td>Cretonne</td>
<td>Damask</td>
</tr>
</tbody>
</table>

**CUBIC MEASURE.**—Table III.

<table>
<thead>
<tr>
<th>The Foot</th>
<th>1 Item. Logs in Rough Lumber</th>
</tr>
</thead>
</table>

**AVOIRDUPOIS MEASURE.**—Table IX.

<table>
<thead>
<tr>
<th>The Pound</th>
<th>4 Items</th>
</tr>
</thead>
<tbody>
<tr>
<td>Nails</td>
<td>Putty</td>
</tr>
<tr>
<td>Screws</td>
<td>Glue</td>
</tr>
</tbody>
</table>

**UNIT MEASURE.**—Table XIII.

<table>
<thead>
<tr>
<th>The Dozen</th>
<th>1 Item</th>
<th>Buttons</th>
</tr>
</thead>
</table>

<table>
<thead>
<tr>
<th>Number of Items Measured</th>
<th>14</th>
</tr>
</thead>
<tbody>
<tr>
<td>Number of Different Measures</td>
<td>6</td>
</tr>
<tr>
<td>Items Calling for More Than 1 Unit</td>
<td>0</td>
</tr>
</tbody>
</table>
THE PORTO RICO AMERICAN TOBACCO COMPANY

The Porto Rico American Tobacco Company is organized under the laws of Porto Rico for the purpose of making cigars and cigarettes. Its main product is cigars. On an average working day, 250,000 cigars are made for export.

In my inspection of the cigar making factories, I was able to determine the use of tables of measurement and will endeavor to indicate them in describing the processes of manufacture.

THE TOBACCO PLANT.

The tobacco plant is very large and although it reaches not more than five feet in height, it bears leaves twelve to thirty inches long and eight to sixteen inches wide. There are also smaller-sized leaves on the plant.

The plant may be grown under a white netting and if so the tobacco produced is lighter in color than that grown without a netting.

For cigar manufacture, the plant has a threefold division: cigar wrapper tobaccos, cigar filler tobaccos, and binders. The first are selected because of the length and width of the leaf, its fine texture, and even its color. Filler tobaccos are chosen from small, thick leaves. Binders are selected according to the thickness and length of the leaf.

SUPPLIES OF TOBACCO.

To manufacture cigars profitably, it is necessary to have a steady supply of tobacco. To secure this most companies have their own tobacco plantations. However, some companies prefer to buy the crops as they mature and they employ inspectors to determine the quality of the tobacco. Generally an acre of plants will yield about
850 pounds of tobacco. It may also be bought from the drying and packing houses, in which case it is sold in bales weighing 75 to 100 pounds, or in hogsheads weighing 600 pounds each.

THE MANUFACTUR OF CIGARS.

Cigars are of two classes; Machine-made or hand-made. In order to appreciate fully the difference in the cost of production, it may be noted that a cigar-making machine operated by four girls makes 4,000 cigars in an ordinary working day, whereas a man working by hand can make but 150 to 200 cigars a day.

The cigar tobacco is divided into three groups: first, the filler, which is the main part of the cigar and consists of small leaves cut and cured; second, the binder, which binds the filler into a cylinder somewhat resembling a cigar; and third, the wrapper, which covers the binder and filler.

MACHINE-MADE CIGARS.

The machine is first adjusted to the size and type of cigar to be made, cigars being of different lengths and thicknesses. Then the material is brought to the machine and made ready for the operations. The filler is poured in and the machine measures by length and thickness the amount to be used. The next process is the binding, when the binder leaf, which has been cut by another operation, binds the filler into a cylinder. The next process is the wrapping, and then the cigar is completed. Cigars are bundled in fifties and weighed in order to determine whether they contain the correct amount of tobacco. A bundle weighs about two pounds.

As most machine-made cigars are the standard five-cent brand, there is very little need of inspection, and they are taken and labeled, after which they are kept a few days for pressure and drying. They are then boxed and ready for shipment.
HAND-MADE CIGARS.

The hand-made cigar is usually expensive and the tobacco used is therefore of a better grade throughout. Because of this fact, the company exercises due care to see that none of it is stolen. Each man on coming to work in the morning is given a certain number of pounds of tobacco and a certain number of wrappers. They are then divided into groups, each group making a particular style and size of cigar. They are also given a measuring device with which to measure the length and thickness of the cigars to see that they are up to the required standard.

As the cigars are hand-made, the makers have to be very careful to put the right amount of tobacco into them. They measure the weight with one hand and then cut out with a cutting tool the binder and the wrapper. They roll the binder around the tobacco and then sheathe it in the wrapper, gluing the ends to make them either round or pointed. The cigars are then bundled into groups of fifty and carried to the weighing and receiving desk where they are weighed and credited to the man who has made them. They then pass through repeated inspections and frequent pressing to give them the correct shape. After being labeled and packed in boxes of twenty-five, fifty, or a hundred, they are given a final pressing and are ready for shipment.

SHIPPING CIGARS.

The cigars arrive in the shipping room in boxes and the shipping clerk packs them in wooden cases containing about 100 boxes. In this particular factory they were paying $1.90 for a wooden case and upon investigation they found that by packing in cartons that cost twenty cents each, holding fifty boxes of cigars, a substantial saving was effected. Before cigars can be shipped, they must be stamped by the Government, which taxes all cigars produced for sale.
BLENDING OF CIGAR TOBACCO.

In order to standardize cigars, the filler tobacco must always be the same. Experts are hired who blend it by mixing various kinds in certain proportions.

HUMIDITY.

It is very important to have perfect cigars, and since tobacco is a plant, it can easily deteriorate. The processing up to the point at which tobacco becomes a cigar is mostly a matter of drying. Too great humidity in the factory would result in very poor cigars, and in order to assist nature, humidity throughout the factory is controlled by means of a ventilating system which circulates air that has a standard amount of moisture and a standard degree of temperature.

PRICING OF CIGARS.

Cigars are priced according to quality, size, and quantity,—quality, as to whether they are machine or hand-made; size, as to length, thickness, and style; quantity, as to units of count, generally in multiples of five or ten.

SUMMARY

The Porto Rico American Tobacco Company

Analysis of Merchandise by Tables

SQUARE MEASURE.---Table II.

The Inch. 1 Item.

Value of Leaf Tobacco.

The Acre. 1 Item.

Value of tobacco measured by yield per acre.

AVOIRDUPOIS MEASURE.---Table IX.

The Pound. 1 Item.

Tobacco.
AVOIRDUPONS MEASURE.--Table IX. (Continued)

The Hundredweight. 1 Item.

Tobacco.

The Ounce. 1 Item.

Weight of a cigar.

<table>
<thead>
<tr>
<th>Description</th>
<th>Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Number of Items Measured</td>
<td>5</td>
</tr>
<tr>
<td>Number of Different Measures</td>
<td>5</td>
</tr>
<tr>
<td>Items Calling for More Than 1 Unit</td>
<td>0</td>
</tr>
</tbody>
</table>
SUMMARY OF UNITS OF MEASUREMENT BY ITEMS
FOR THE SIX CONCERNS STUDIED

<table>
<thead>
<tr>
<th>LINEAR MEASURE.--Items.</th>
<th>SQUARE MEASURE.--Items.</th>
</tr>
</thead>
<tbody>
<tr>
<td>The Inch 45</td>
<td>The Inch 28</td>
</tr>
<tr>
<td>The Foot 7</td>
<td>The Foot 13</td>
</tr>
<tr>
<td>The Yard 22</td>
<td>The Yard 5</td>
</tr>
<tr>
<td>The Size 1</td>
<td>The Acre 1</td>
</tr>
<tr>
<td>Total 75</td>
<td>Total 47</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>CUBIC MEASURE.--Items.</th>
<th>TROY MEASURE.--Items.</th>
</tr>
</thead>
<tbody>
<tr>
<td>The Inch 11</td>
<td>The Karat 1</td>
</tr>
<tr>
<td>The Foot 1</td>
<td>Total 1</td>
</tr>
<tr>
<td>Total 12</td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>LIQUID MEASURE.--Items.</th>
<th>DRY MEASURE.--Items.</th>
</tr>
</thead>
<tbody>
<tr>
<td>The Ounce 20</td>
<td>The Pint 3</td>
</tr>
<tr>
<td>The Gill 9</td>
<td>The Quart 8</td>
</tr>
<tr>
<td>The Pint 21</td>
<td>The Peck 6</td>
</tr>
<tr>
<td>The Quart 22</td>
<td>The Bushel 5</td>
</tr>
<tr>
<td>The Gallon 12</td>
<td>Total 22</td>
</tr>
<tr>
<td>Total 84</td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>AVOIRDUPOIS MEASURE.--Items.</th>
<th>PAPER MEASURE.--Items.</th>
</tr>
</thead>
<tbody>
<tr>
<td>The Ounce 25</td>
<td>The Sheet 1</td>
</tr>
<tr>
<td>The Pound 33</td>
<td>The Quire 1</td>
</tr>
<tr>
<td>The Hundrwt. 14</td>
<td>The Ream 1</td>
</tr>
<tr>
<td>Total 127</td>
<td>The Bundle 1</td>
</tr>
<tr>
<td></td>
<td>Total 4</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>UNIT MEASURE.--Items.</th>
</tr>
</thead>
<tbody>
<tr>
<td>The Unit 31</td>
</tr>
<tr>
<td>The Dozen 12</td>
</tr>
<tr>
<td>Total 43</td>
</tr>
</tbody>
</table>
TOTAL OF ITEMS BY TABLES

<table>
<thead>
<tr>
<th>Measure</th>
<th>Count</th>
</tr>
</thead>
<tbody>
<tr>
<td>Linear Measure</td>
<td>75</td>
</tr>
<tr>
<td>Square Measure</td>
<td>47</td>
</tr>
<tr>
<td>Cubic Measure</td>
<td>12</td>
</tr>
<tr>
<td>Troy Measure</td>
<td>1</td>
</tr>
<tr>
<td>Liquid Measure</td>
<td>84</td>
</tr>
<tr>
<td>Dry Measure</td>
<td>22</td>
</tr>
<tr>
<td>Avoirdupois Measure</td>
<td>127</td>
</tr>
<tr>
<td>Paper Measure</td>
<td>4</td>
</tr>
<tr>
<td>Unit Measure</td>
<td>43</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td><strong>415</strong></td>
</tr>
</tbody>
</table>

TOTAL OF ITEMS BY CONCERNS

<table>
<thead>
<tr>
<th>Company</th>
<th>Count</th>
</tr>
</thead>
<tbody>
<tr>
<td>Gonzalez Padin Company</td>
<td>154</td>
</tr>
<tr>
<td>Porto Rican Drug Company</td>
<td>55</td>
</tr>
<tr>
<td>Sobrinos de Villamil Sen</td>
<td>60</td>
</tr>
<tr>
<td>Plaza Provision, Inc.</td>
<td>127</td>
</tr>
<tr>
<td>Rafael Margarida Company</td>
<td>14</td>
</tr>
<tr>
<td>Porto Rican Tobacco Co.</td>
<td>5</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td><strong>415</strong></td>
</tr>
</tbody>
</table>

Grand Total of Items by Tables 415

Grand Total of Items by Concerns 415

Units of Measurement Available for this Study 89

(See Page 10)

Less Measures not Involved in Study:

<table>
<thead>
<tr>
<th>Measure</th>
<th>Count</th>
</tr>
</thead>
<tbody>
<tr>
<td>Apothecaries' Fluid Measure</td>
<td>5</td>
</tr>
<tr>
<td>Apothecaries' Weight</td>
<td>5</td>
</tr>
<tr>
<td>Circular or Angular Measure</td>
<td>7</td>
</tr>
<tr>
<td>Time Measure</td>
<td>8</td>
</tr>
<tr>
<td>Money Measure</td>
<td>14</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td><strong>39</strong></td>
</tr>
</tbody>
</table>

Units of Measurement Involved in Study 50

Units of Measurement not Used in Study 21

Units of Measurement Used in Study 29

Items Calling for More than One Measure 7
From the foregoing figures the following conclusions can be deduced:

The limitations of the study have made it possible to use only fifty units of measurement out of an available total of eighty-nine, as listed on page 10. Of these fifty-nine possible units, it has been shown that only twenty-nine have been actually required to complete the study.

The six business enterprises studied have furnished a total of 415 items of purchase or sale. It will be apparent from the findings of the thesis and the summary of figures on page 68, that each transaction of purchase or sale of a given item has required, not a table, but only its own specific unit of the table involved.

It is also an interesting fact that, so far as this study goes, out of a total of 415 listed items, only seven have called for more than one unit of measure in effecting the transaction of purchase or sale. Each of the seven items requiring compound units has been listed in its appropriate place. They are exceptional, however, rather than the rule, for, as has been shown, virtually each sales situation calls for one unit of measure and that measure is the one that is best adapted to the situation.