# **ABBOTT'S BITTERS**

History & Formula

# FEE BROTHERS BITTERS

http://www.feebrothers.com

Joe Fee http://www.facebook.com/joe.fee.927

## INTRODUCTION

Wi-Fi Password: givesyouwings Twitter: @dsoneil http://facebook.com/dsoneil

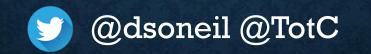
Darcy S. O'Neil

www.artofdrink.com



# THE ABBOTT'S RECIPE

- This recipe is specific to the 1870 period
- There may have been formula changes
- I believe this recipe is the starting point



# **ABBOTT'S HISTORY**



## **ABBOTT'S FAMILY**

- The Abbott family resided in Baltimore, Maryland.
- Cornelius W. Abbott (1855) was the son of Cornelius F. Abbott.
- Abbott senior owned a tobacco store and later was an insurance salesman.
- He dabbled in bitters around 1865, C.W. was 10 years old in 1865.
- Morning Star Bitters was the Abbott's first bitter product (~1865).
- They also sold an Oyster Shell Remedy and Angostura Aromatic Bitters.
- There are many inconsistencies in the families stories.

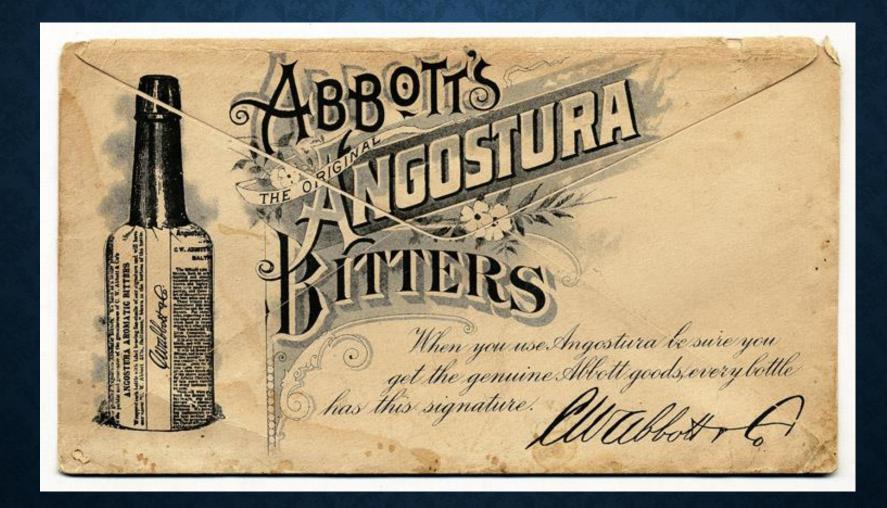




## **MORNING STAR BITTERS**



## **ABBOTT'S ANGOSTURA**





# **ABBOTT'S BITTERS**

#### ALCOHOLIC STRENGTH IS 50 PER CENT. IN VOLUME CONTENTS 8-1/2 FLUID OUNCES A piquant Aromatic useful to Physician, flousewife, Chef and others, MARGURARD BY C.W.ABBOTE & CO. MARTIMORE, MD, U.S.A Only carefully selected herbs,

barles, roots and spices are used in this preparation. As meastroum or flavor(1 to 4 drachms to the dose) physicians can make many prescriptions very palatable. A tablespoonful in whiskey, gin, wine or sweetened water, an excellent tonic.

TREINGTH IN VOLUME( LUID OUNCES useful to Plays of and others, to av The CO to, u.s.A relected herbs, pices are used A. As menstoy 4 drachms vysicians very



These bilters, the crowning ingredier' of a COCKTAIL, have gained a wide reputation for imparting bosquet to plain and fancy drinks, from Iced Tea, Lomonade, Ginger-ale and Plain Soda to Champagne : use 2 to 20 drops.

Delightful flavor for a Sherbet, Wine Jelly, such soups as Mock-Turtle, Mulligatawny, etc. Teaspoonful or less adds greatly to the appetizing and tonic effect of GRAPE FRUIT, SLICED ORANGES and other dressed fruit.

Should be as handy in every kitchen, on side board and dining table as the Sherry and Sauce bottle. Try these Bitters when piquancy or zest is desired.

> BUSINESS FOUNDED (865. INCORPORATED 1907

TRADE EMBLEM CONVERDATED 1808. LABEL RED STRATIONE U. S. PAT. SPEIDE JANY 22, 1907 AND AUS 25, 1901

## **ABBOTT'S BITTERS MARKETING**





@dsoneil @TotC

## **ABBOTT'S FORMULA CHANGE?**



### **ANGOSTURA LEGAL TROUBLE**

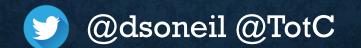
- It all started because the Abbotts were putting their bitters in used Angostura bottles and reselling the product, as Angostura Bitters.\*
- Then they started selling it in their own bottle as Angostura Bitters.
- Then Abbott's Angostura.
- Then just Abbott's Bitters.
- Angostura proper was advertised in Baltimore newspapers in 1870

\* Baltimore Sun, January 2, 1884

# WHERE WAS THE RECIPE DISCOVERED?

# IT WAS A DARK AND STORMY NIGHT...

Actually, it was and I was sitting in front of my computer at 11:30 at night in August 2009 doing some preliminary research for my book, Fix the Pumps.



# PATENT DATABASE

# https://patents.google.com



### **OTHER COOL PATENTS**

- Carbonated ice (1958)
- Device for frosting cocktail glasses (1966)
- Cocktail Pick: combination cocktail pick, stirrer and food marker (1970)
- Improvement in the preparation of aerated drinks for medicinal purposes
- Cocktail Shakers (dozens of patents)
- Cream Cocktail Dispenser (1970)
- Mechanical Cocktail Shakers
- Cocktail Cuff
- Soda Syrups

### **PATENTED BITTER RECIPES**

- Most occur in the 1860s to 1890s
- Often referred to as "tonic bitters" or "medicinal compounds"
- Names like Young American Bitters, Congress Bitters, and Democratic Bitters
- Wanata Guaco Bitters, Kieffer Bitters and Peruvian Bark Bitters from New Orleans
- Boonekamap Maagbitters (may be Underberg Bitters recipe)

\* A word of caution, some of these old recipes have toxic ingredients.

## FRANK FULLERTON'S BITTERS (1868)

# UNITED STATES PATENT OFFICE.

FRANK FULLERTON, OF WILLIAMSPORT, PENNSYLVANIA.

#### IMPROVED TONIC BITTERS.

Specification forming part of Letters Patent No. 83,273, dated October 20, 1868.

To all whom it may concern:

Be it known that I, FRANK FULLERTON, of Williamsport, in the county of Lycoming and State of Pennsylvania, have invented a new and useful Compound for Tonic Bitters; and do hereby declare the same to be described as follows:

The ingredients of the said compound and their proportions may be thus stated: Wildcherry bark, four ounces; gentian-root, two drams; sweet marjoram, two drams; angelicaseed, one ounce; calamus-root, two ounces; galangal, one ounce; cloves, one dram; nutmegs, two drams; cardamom-seed, one-half ounce; orange-peel, one ounce; green paradise, one-half ounce; caraway-seed, one-half

ounce; cinnamom, two drams; coriander-seed, one ounce; lavender-flowers, one ounce; Virginia snake-root, two drams; ginger-root, onehalf ounce; juniper-berries, four ounces; simple sirup, one pint; spirits of wine, four gallons.

What I claim as my invention, and desire to secure by Letters Patent, is—

The within-described compound for tonic bitters, made of the ingredients and in the proportions as above set forth.

#### FRANK FULLERTON.

Witnesses:

WILL. K. MENDENHALL, F. B. GRIFFITH.

# **THE ABBOTT'S RECIPE**

Actually, it was W.P. and John Haubert's Recipe for "German Bitters" Patent No. 87,169 February 23, 1869



@dsoneil @TotC

#### W. P. HAUBERT AND JOHN HAUBERT, OF CANTON, OHIO.

Letters Patent No. 87,169, dated February 23, 1869.

#### IMPROVED BITTERS.

The Schedule referred to in these Letters Patent and making part of the same.

#### To all whom it may concern:

Be it known that we, W. P. HAUBERT and JOHN HAUBERT, both of Canton, in the county of Stark, and State of Ohio, have invented a new and useful Medical Compound, for use as a general family medicine, to which we have given the name of "German Bitters;" and we do hereby declare that the following is a full, clear, and exact description of the ingredients forming our compound, and of the proportions and mode of preparing and using the same, which will enable others skilled in the art to make and use our compound.

The names and proportions of the ingredients to be used in preparing forty (40) gallons of our compound are as follows: cess is going on, the liquid matter in the barrel should be drawn off, and turned in again at the top of the barrel, in order to effect a more thorough mingling of the seeds and all parts of the liquid matter

During all this process, the barrel should be kept tightly covered as much as possible, in order to prevent the escape of any steam or vapor which might rise from the liquid matter.

At the end of the two weeks, the liquid matter, which constitutes the medical compound or bitters proper, is drawn off into a clean barrel, where it is left to stand three weeks, when it is ready for bottling and use, although it can be left for a longer time if desired, as age improves the quality of the bitters.

It may be found desirable to use a fine muslin

# **HAUBERT'S GERMAN BITTERS?**

How is this even related to Abbott's Bitters?

It cures rheumatism, dyspepsia, bowel-complaints, dysentery, chills and fevers of all kinds, depression of spirits, and fainting, and will counteract the effect of liquor in a few minutes.

The ordinary dose for adults is a wineglassful, and for children in proportion.

For fever and ague, take three wineglassfuls just before going to bed; but of course the amount and times for doses will vary with the persons treated, and is a matter to be definitely settled only by experience with the patient.

Having thus fully described our invention, we wish it understood that although we have given what we consider to be the proper proportions for the several ingredients used in preparing our compound, as well as the best mode of preparing the same, we reserve the right to vary somewhat therefrom, as experience may show to be necessary, as

What we claim as our invention, and desire to secure by Letters Patent, is---

The medical compound herein described, prepared from the ingredients, and in the manner substantially as herein described.

As evidence that we claim the foregoing, we have hereunto set our hands, in the presence of two witnesses, this 16th day of January, A. D. 1869.

> W. P. HAUBERT. JOHN HAUBERT.

Witnesses:

ЈОВ АВВОТТ, ВUTH К. АВВОТТ.

# **JOB & RUTH ABBOTT**

• They were witnesses on the Haubert patent

- Job Abbott was a patent lawyer
- Job was Ruth's husband

What are the chances that an Abbott's name (two actually) are on a bitters recipe?



# WHO WAS JOB ABBOTT?

- Born on 23 Aug 1845 in Andover, Mass.
- Son of Nathan B. Abbott
- Civil engineer and entrepreneur
- Studied engineering at Lawrence Scientific School, Harvard University. Graduated 1864
- Studied patent law, was admitted to the Ohio bar, and became a patent expert.
- Chief Engineer at the Wrought Iron Bridge Co.
- He was involved with the Toronto Bridge
  Company, then the Dominion Bridge Company
- Job was president of Dominion Bridge.
- Moved to Montreal
- Member of the Canadian Business Hall of Fame
- The US Census of 1880 lists his employment as "Manufacturing Beverages"

## WAS JOB RELATED TO CORNELIUS?



- Job and Cornelius F. Abbott (senior) are cousins
- Born 21 miles apart in Massachusetts (Andover and Lincoln)\*
- Both Job and Cornelius W. Abbott (Junior) went to Harvard
- 822 students enrolled at Harvard in 1864

\* As the crow flies

# **DO YOU WANT TO SEE THE RECIPE?**



#### To all whom it may concern:

Be it known that we, W. P. HAUBERT and JOHN HAUBERT, both of Canton, in the county of Stark, and State of Ohio, have invented a new and useful Medical Compound, for use as a general family medicine, to which we have given the name of "German Bitters;" and we do hereby declare that the following is a full, clear, and exact description of the ingredients forming our compound, and of the proportions and mode of preparing and using the same, which will enable others skilled in the art to make and use our compound.

The names and proportions of the ingredients to be used in preparing forty (40) gallons of our compound are as follows:

Four (4) pounds of anise-seed;

Two (2) pounds of orange-peel, ground;

Four (4) pounds of fennel-seed;

Two (2) pounds of ground gentian; Four (4) pounds of pulverized canella;

Four (4) pounds of German chamomile:

Twelve (12) pounds of white sugar;

Twenty (20) gallons of corn high-wine:

Twenty (20) gallons of water; and

One (1) pound of burnt brown sugar, (this last ingredient being used to give the compound a good color.)

To prepare the compound, we take a whiskey-barrel, of sufficient capacity to hold somewhat over forty gallons, take out one head, and insert a false bottom, having a large number of holes bored in it, about four inches from the true bottom, which is left in the barrel, and the barrel is set up in an ever the participant

rel, and the barrel is set up in an erect position. Into this barrel we introduce a bag of muslin, of a size a little less than that of the barrel, the bottom of which bag rests on the false bottom, and the top of which is secured by being turned over the upper edge of the barrel, and fastened by a rope, tied around it and the barrel.

Into this bag and barrel, arranged as described, we put all of the first six-named ingredients, together with all of the wine, and two or three gallons of water, if thought desirable although the gallons of water, if

#### HAUBERT GERMAN BITTERS

- 4 lbs Anise Seed
- 2 lbs Orange Peel, ground
- 4 lbs Fennel Seed
- 2 lbs Gentian, ground
- 2 lbs Canella, pulverized
- 4 lbs German Chamomile
- 12 lbs White Sugar
- 20 gal Corn High-Wine
- 20 Gal Water
- 1 1b Burnt Brown Sugar

### THE ROBERT HESS GC/MS DATA

| ltern Code | Quantity<br>G | Ingredient Nam                   |
|------------|---------------|----------------------------------|
| 11350000   | 0.200         | ANISE STAR CHINA                 |
| 11360000   | 4.000         | ANISIC ALDEHYDE                  |
| 11665004   | 20.000        | BAY OIL TERPENELESS              |
| 11780000   | 40.000        | BENZOIN SIAM RESIN 100%          |
| 11920000   | 1.000         | BENZYL ALCOHOL                   |
| 12310000   | 4.000         | BOIS DE ROSE OIL                 |
| 13168000   | 4.000         | CARDAMON ABSOLUTE                |
| 14180000   | 4.500         | CINNAMYL ALCOHOL                 |
| 16020000   | 1.000         | DIETHYL MALONATE                 |
| 16050000   | 16.000        | DIETHYL SUCCINATE                |
| 17110000   | 1.000         | ETHYL BENZOATE                   |
| 17700100   | 478.100       | EUGENOL                          |
| 18960999   | 12.000        | GINGER FRESH MADAGASCAR EE12927  |
| 20720000   | 1.200         | ISO EUGENOL                      |
| 21653000   | 3.000         | LAVENDER SPIKE BORDAS 8181       |
| 22490000   | 9.000         | LINALOOL SYNTHETIC FCC           |
| 24674000   | 7.000         | NUTMEG TERPENELESS *CA*          |
| 26530000   | 8.000         | PIMENTO LEAF OIL                 |
| 27820000   | 10.000        | SPEARMINT NATIVE USA 1ST CUTTING |
| 28270000   | 40.000        | TERPINEOL ALPHA                  |
| 28664000   | 225.000       | TONKA HYPERABSOLUTE              |
|            | 4 000         | VI ANO VI ANO OIL # 2 NATUDAL    |

4 lbs Anise Seed 2 lbs Orange Peel, ground 4 lbs Fennel Seed 2 lbs Gentian, ground 2 lbs Canella, pulverized 4 lbs German Chamomile 12 lbs White Sugar 20 gal Corn High-Wine 20 Gal Water 1 lb Burnt Brown Sugar

Please note that there are no angostura compounds, or gentian.

### **TONKA BEAN & CLOVE OIL**

- Probably an experimental error
- Samples should be run in triplicate
- But the GC/MS data is still very useful

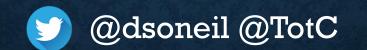
### **ANGOSTURA BARK CLAIM**

How much angostura bark is need to meet the marketing claim that a product has said component? Historically, angostura could be viewed with suspicion as it was often confused with nux vomica, which had brucine and other poisonous compounds in the bark.

"Lawyers never lie, they just tell the least likely truth."

## SCIENTIFIC METHOD

- Identify unique compounds in Angostura Bark and see if they are in old Abbott's
- Identify unique compounds in Canella Bark and see if they are in old Abbott's

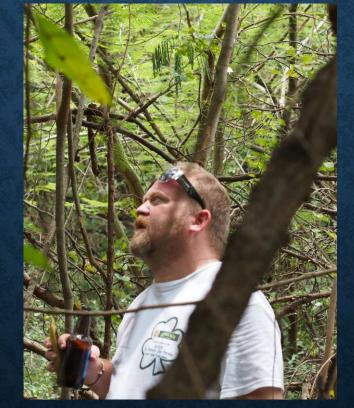


# THE BARK QUEST TEAM

#### Jesse "Barkman" Card



Troy ''Bark Whisperer'' Patterson



Miss Veronica Gordon (Crucian Heritage And Nature Tourism)



# **CANELLA BARK**

- High in eugenol (clove oil)
- Oils that give a cinnamon aroma
- Contains canellin, similar to cajuput
- Some resinous and bitter compounds
- One aspect of the flavour is described as pungent
- It has a pleasantly aromatic aroma

# **CANELLA BARK**



- At its peak usage, 170,000 tons of canella was being imported into the US.
- By the 1910s canella bark was becoming harder to find.
- It was eventually put on the endangered species list.
- The Abbott's bottle change (listing of ingredients) coincides with the decline in canella bark.
- The United States Department of Agriculture lists canella as acceptable for human consumption.
   (Source: Plants for Human Consumption - Kunkel, G. 1984).

## **MAKING THE BITTERS**

Dillon's Small Batch Distillers (Niagara, Ontario)



## **ABBOTT'S AGED BITTERS**



A Toast to Age

Aged bitters gives your drink natural, mellow Bavor which an ordinory bitters lacks. • inslit on "ABBOTT'S"--America's Oldest and Finest. The Abbott mon pictured above appears on every label. Look for him before you buy. He's the sign of the age.





#### Haubert Patent Remarks

At the end of the two weeks, the liquid matter, which constitutes the medical compound or bitters proper, is drawn off into a clean barrel, where it is left to stand three weeks, when it is ready for bottling and use, although it can be left for a longer time if desired, as age improves the quality of the bitters.



# **AGING & OXIDATION**

A very complex process that is hard to predict Some compounds age / oxidize in a predetermined way

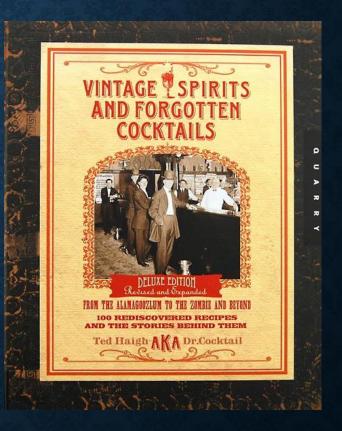
# REVERSE ENGINEERING PITFALLS

Just a few words on this topic.



## TED "DR. COCKTAIL" HAIGH

- Renowned cocktail historian
- Author of Vintage Spirits & Forgotten Cocktails
- Co-founder of Museum of the American Cocktail
- All 'round fantastic human-being



## DR. COCKTAIL'S RESEARCH

Cornelius Webster Abbott, the namesake of Abbott's Bitters, and the founder, president, and owner of C.W. Abbott Company. had no thought of producing bitters initially, according to the oft-told story recalled by his family and business associates. Such an idea, they say, never occurred to him.

Sometime, however, between the 1865 founding of the company and 1872, C.W. sent his father, who was working for him as a bookkeeper, from Baltimore the short distance to the U.S. Patent & Trademark Office in Washington D.C. on company-related business.

Sitting next to C.W.'s father in the waiting room was a gentleman whose name is lost to history. This man had been waiting there for days in hopes to patent his formula, a bitters recipe. Upon the elder Abbott's return, C.W. and he discussed this fellow and decided to buy the recipe - which they did. That is how, they say, Abbott's Bitters came to be.

## **RECIPE CLUES....**

What are the chances that your cousin, a patent lawyer, filed a bitters patent and your family story is about getting a recipe at the patent office from an unknown person?

Also, the recipe is very similar to the one your cousin filed, with the ABV at 50% and the process involves aging, unlike the 75+ other bitter patents around that time.



### **TED "DR. COCKTAIL" HAIGH**

A simple quote from Ted Haigh after I sent him a few test bottles:

"They are wonderful! They finally break that 4th wall! Old Man Abbott would recognize them!"





# THANK YOU

Joe Fee & Fee's Brothers Bitters The Cocktail Apprentices The Esteemed Panelists Tales of the Cocktail And You for coming! @dsoneil @TotC