

November 26, 1952

Honorable Barry Goldwater  
Phoenix, Arizona

Dear Senator Barry:

The San Antonio Express carried this delightful news of you this morning. My hearty congratulations and best wishes for a long tenure of service that you are ably fitted to perform.

You will recall helping me make color movies of a side-gun fighter arrangement in a T-6 at Luke Field when I was the Sub-depot Commander for Ennis Whitehead. Just before my retirement in 1949 I was Air Inspector of the Far East Air Forces for General Whitehead, and came home about the time that Ennis returned to the States.

Your knowledge of aircraft and related problems may stimulate you to read the enclosed folder. I am working hard to put it over. It has been flight tested by Air Force and Civil Aeronautics Administration, the latter rendering the better report.

Please write when you can, and may the Lord bless your every effort.

Sincerely,

Carl J. Crane  
Colonel USAF Ret

BARRY GOLDWATER  
PHOENIX, ARIZONA

December 8, 1952

Mr. Carl J. Crane  
Varsity Village Building  
833 Bandera Road  
San Antonio 1, Texas

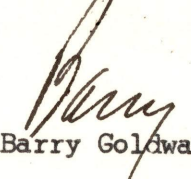
Dear Carl:

Certainly I recall working with you at Luke Field and I have often talked about you and your accomplishments in the field that you are now specializing in.

Ever since I have been flying I have wondered why somebody hasn't brought out one instrument that embodies all of the stories the various flight instruments tell. The brochure that you sent me is far more inclusive than anything I had dreamed of but it sure looks like the approach to this problem.

I wish you the best of luck and shall follow your endeavors closely.

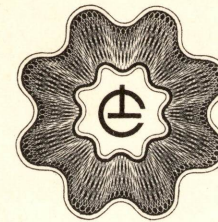
Sincerely



Barry Goldwater

BG/mh





## J.L. CLARK MANUFACTURING CO.

PLAIN AND DECORATED  
TIN BOXES AND CANS

ROCKFORD, ILL.

January 14, 1952

Deansteel Products  
111 Merchants Street  
San Antonio 4, Texas

Gentlemen:

Attention: Mr. Carl J. Crane

Reference: Anti-Chap Stick Tube

We were pleased to learn a little more about your prospective use of the above mentioned container and we can send you 48 of the government style lithographed tubes for your experimental use.

It is impossible to make these tubes up on plain metal since the steel is black plate and would rust easily without the protective coatings. We don't have too many samples left in stock, however, and so if possible we would like you not to destroy these samples after you have completed your tests, and perhaps you could return part of them for our sample supply. We will ship these out today and I may have the cost figures back on a quantity of 100,000 in time to include as a postscript on this letter, or I will get that information to you in a separate letter within the next two or three days.

Yours sincerely,

J. L. CLARK MANUFACTURING CO.

A. E. Bennett  
js

P. S. I now have the cost figures for the Anti-Chap Stick tube structure. I have had this setup on the basis of a lithographing coat with two prints and a varnish overall with a lacquer coating on the inside of the body. The cap or cover has been figured with a solid coating and a varnish on the outside

J.L.CLARK MANUFACTURING CO.

Deansteel Products

1/14/52

-2-

with a lacquer inside, and the bottom with gold lacquer both sides. We have also used quantities of 50,000, 100,000, and 200,000 for your comparison.

These figures are:

50,000	\$16.35	per thousand
100,000	13.30	" "
200,000	11.85	" "

These prices are f.o.b. Rockford, Illinois.

We will look forward to hearing from you again on this matter.



February 11, 1952

Mr. A. B. Bennett  
J. L. Clark Manufacturing Co.  
Rockford, Ill.

Dear Mr. Bennett:

We acknowledge with appreciation your letter of January 14th which gave us the complete information we need in making the necessary study of our project.

We also acknowledge your letter of February 8th and apologize for not sooner having replied to your prompt consideration of our requests. Presently we are engaged in the accelerated effort to bring our experimental tests to a satisfactory conclusion in order that we may order sizeable quantities of the Anti-Chap Stick Tube.

As soon as we are reasonably certain of our immediate requirements we will advise you of our program and the number of tubes we are likely to need in the foreseeable future.

For the time being we are keeping the samples you sent hoping that soon some or all of them be filled for a short service test of our product. As per your request those not needed will be promptly returned.

Sincerely yours,

DEANSTEEL PRODUCTS

Carl J. Crane

CJC/d

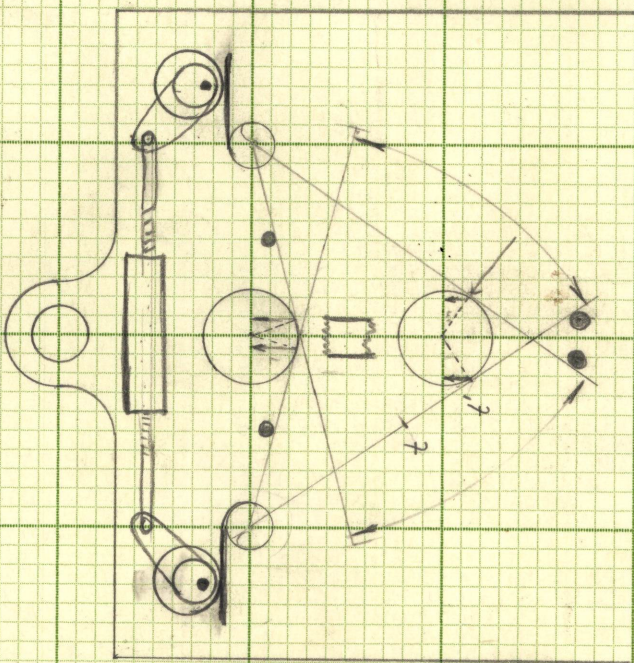
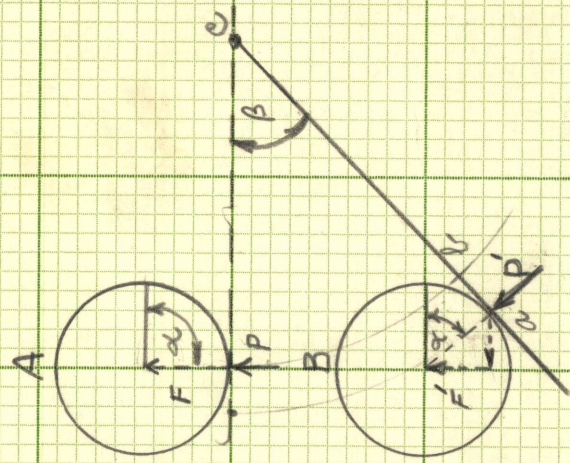


POSITION A

$$F = P \sin \alpha$$

POSITION B

$$F = P' \sin \alpha$$



1. ADJUSTABLE THRU CAM-TURNBUCKLE
2. AUTOMATICALLY ADJUSTABLE THRU MOTOR DRIVE BY LOAD DEFLECTION OF ELECTRO FOLLOW-UP

CJC-9-16-52

DISCLOSED TO ME

COPIES GIVEN  
9-16-52



1 Kelly  
26 Feb

Carl-

You oughtn't to spend your time trying to sell me, I'm sold. I think it ought to be against the law for any airplane to fly without an instrument in it similar to yours, well, I'll say yours. That is any airplane that should be flown on instruments.

Why don't you sell Bill Irvine or Sam Anderson, @ 6 of the 8th at Ft Worth or Li May.

Incidentally the @-47 that I landed had the crudest instrumentation I have almost ever flown. The rate of climb indicator was drawn almost at a 45° angle from me and I blunked out the turn whenever I banked to the right.



The three approaches were  
necessitated because on  
two of them the GCA could  
not get me lined up with  
the runway on account  
of the crosswind.

Thanks for your  
thoughtfulness.

AMM

ch, oes, and loan business  
ck- its, an important part in  
nar, uil, the national economy."

#### KELLY COMMANDER LANDS 'BLIND' TO SET RECORD

Piloting a B-26, Maj. Gen. Clements McMullen, commander of the San Antonio Air Materiel Area, made the 1000th G.C.A. (Ground Control Approach) landing at Kelly A.F.B. Wednesday afternoon to set a new monthly record in the number of "blind landings" made on the Kelly runways.

Even though his landing was just a test run, General McMullen has made numerous actual landings in bad weather. He holds the record for bringing his plane in with a ceiling of only 100 feet and a visibility of barely a quarter of a mile.

Operating the G.C.A. unit at the time the Kelly commander made his landing was M/Sgt. Willie J. Hafley, S/Sgt. Stanley A. Moore and M/Sgt. Robert W. Jeffrey.

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26 February 1951

Major General Roger M. Ramey  
Director of Operations  
Hq, United States Air Force  
Washington 25, D. C.

Dear Rog:

The attached pamphlet was sent to me by Carl Crane. Crane, as you may know, is a retired Air Force Colonel. He has superior ability in developing flying equipment. For instance, he developed the navigation training equipment which we used during the war.

I have seen the instrument which he has put together, to facilitate instrument flying, and I think it to be superior. I believe that it should be installed on all aircraft which are to be flown and landed on instruments. I am bringing it to your attention in the hope that you will take some action to require a better instrumentation installation in our aircraft. This instrument puts directly in front of the pilot, everything he needs to effect good instrument flying.

I do not consider this to be a gadget; I think it is a most important asset of our flying equipment. Therefore, if there is any way I can assist you in getting something done about this, please let me know.

Sincerely,

CLEMENTS McMULLEN  
Major General, USAF  
Commanding



*For Col. Crane*

April 15, 1952

Mr. William M. Cassin  
Lentz, Newton & Co.  
Alamo National Building  
San Antonio 5, Texas

Dear Bill:

This will acknowledge receipt of your letter of April 10 relating to the commission in reference to Natural Gas Odorizing Company.

We have received your bill in the amount of \$2,000.00 for the commission on the sale of stock of Natural Gas Odorizing Company. We are holding the bill pending receipt from you of the agreement setting forth our understanding on this matter. As you can appreciate, the remaining \$5,000.00 will probably be held up for several years until a clearance is obtained on the federal taxes. I thought all of this was perfectly clear and that you and Kraft Bidman were preparing a draft of the agreement.

I will write you separately on the Crane matter as a lot of material has just landed on my desk, and I have not had a chance to study it.

Best regards,

Sincerely,

Joseph W. Powell, Jr.

JWP:mnw  
Copy - mmh

Carl -  
I interpret this to mean that  
perhaps the Rockefeller Foundation has provided  
something for the benefit of  
Airborne Instrument - Jack



Memorandum From

JOHN C. GORDON

•  
LENTZ, NEWTON & CO.  
INVESTMENT SECURITIES  
ALAMO NATIONAL BUILDING  
SAN ANTONIO, TEXAS  
•

GARFIELD 2361

Copies of this to: Hoffman & Betts

Carl:

Just found out there has been some court action - Dave was deposed and Dagen was put in as president of ALPA, Int. but about two weeks ago Dagen was deposed by court order and Dave was reestablished as president. Jack

July 15, 1952

Mr. David L. Behnke  
Air Line Pilots Association  
3145 West 63rd Street  
Chicago 29, Illinois

Dear Dave:

It has been quite a long while since I have been in contact with you. I shall always cherish memories of my tour of duty as Reserve instructor in Chicago. During War II, I had frequent contacts with many of the Chicago gang; but since April of 1949, when I was retired, I have seen and heard from very few.

You are frequently quoted in news papers and magazines, and I'm satisfied you are still in there doing a bang-up job in the interest of the Air Line pilots. There has been considerable copy for a long time on the subject of improvements from the pilot's point of view and job. There have been investigations and explosions, particularly after a series of accidents.

This brings me to the point of this letter. You will remember years ago, when you were on a short tour of active duty at Chamute Field, you met a Lieutenant Carl J. Crane. He recalls you very well. Carl is now retired and lives here in San Antonio. Through the years, as you know, he proved to be a really great engineer in the field of instrument flying and automatic flight. The late Col. Bill Oclser was the inventor of instrument flying. Col. Carl Crane joined Bill Oclser in the late twenties, and the two of them actually created and sold instrument flying to the flying world. From the point of view of the pilot, I am convinced that Carl has done more toward injecting human naturalness in the cockpit than any other person. Now Carl Crane has, after several years of effort and great expense, come up with a real contribution for the good of the pilot and safety. His product is known now as the Crane Allweather Flitegage. Philosophically, it is based on the psychology and physiology of piloting an airplane. It is a real development in the long standing question of grouping flight and related instruments.

We are presently engaged in discussions with several concerns of engineering, manufacturing and marketing ability. It has been tested to a limited degree by C.A.A. and the Air Force. Hughes Aircraft flight section has evaluated it, and the British Joint Services Mission has inquired of us whether we can provide them with a model.

There is a great interest among pilots and those interested in the job of flying airplanes. We may have trouble with some who are deeply imbedded in the present instrumentation systems. I believe there is great room for improvement for the good of the pilot and safety. I believe that Carl Crane has made for us a stride of immeasurable length toward this improvement.

Mr. David L. Behnke  
July 15, 1952  
Page - 2 -

In the interest of Air Line Pilots, I know you will be interested. Before supplying you with masses of detailed description, I wonder if you ever get down here or could come down and have a first hand look.

It would be a genuine pleasure to hear from you and renew our acquaintance.

With kindest regards, I remain,

Sincerely,

John C. Gordon  
Brig. Gen. U.S.A.F.(Retired)

JCG:hs  
Enclosure  
Air Mail



July 15, 1952

*Col Crane*  
Mr. H. L. Hoffman  
Hoffman Radio Corporation  
6200 South Avalon  
Terminal Annex  
Los Angeles, California

Dear Mr. Hoffman:

This is in connection with the Crane Allweather Flitegage, sometimes referred to as the Gyro-electronic flight indicator for all-weather flying.

During the month of April 1952, you were furnished some brief information on this concept of instrumentation. Since that time, interest in the Flitegage has broadened considerably. Hughes Aircraft Company, while not interested in the manufacture and marketing of such equipment, has indicated, through Mr. Harold L. George, a very great interest in the developments of the instrument industry, and particularly how Colonel Crane's development may be related, from the standpoint of aircraft operation, to the electronic displays that are part of their airborne fire control system. There seems to be a possibility of a mutual interest between your company, from the points of view of polished engineering, manufacture and marketing, and the Hughes Aircraft Company.

Mr. Wasmandorff of your company was furnished with a copy of an inquiry from the British Joint Services Mission.

Because of our basic knowledge of and experience in flying, our discussions with important Air Force, Navy, Army, Air Line and private flying (particularly oil people) personnel, we feel that it is time to get into the position of supplying interested agencies with precisely engineered models of this instrument. Our knowledge of your aggressive policy in precise engineering and design and marketing in the primary field of electronics lead us to believe this would be of interest to you. Also, it may be that you have some plans for an establishment in this Southwest area.

Specifically, we would appreciate knowing whether your preliminary investigations have pointed to more detailed interest and how we could help you pursue your interest. Would it be feasible for you or some of your officials to come here for further appraisals in the near future.

Sincerely yours,

JCG:hs  
Air Mail

John C. Gordon  
Brig. Gen. U.S.A.F. (Retired)



LENTZ, NEWTON & Co.  
INVESTMENT SECURITIES

A. T. & T. TELETYPE SA. 45  
GARFIELD 2361  
ALAMO NATIONAL BUILDING  
SAN ANTONIO 5, TEXAS

June 3, 1952

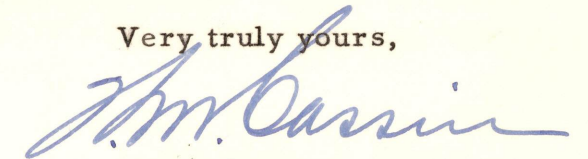
Colonel Carl J. Crane  
833 Bandera Road  
San Antonio 1, Texas

Dear Colonel Crane:

Enclosed is copy of a letter from Mr. Harold L. George, Vice President and General Manager of Hughes Aircraft Company, which I am sure you will find quite interesting and which is self-explanatory.

I shall appreciate very much receiving your comments on Mr. George's letter as promptly as possible.

Very truly yours,



William M. Cassin

WMC/rp  
Enc.

May 13, 1952

copy GAK

Mr. Noah Dietrich, Executive Vice-President  
Hughes Tool Company  
Los Angeles, California

Dear Mr. Dietrich:

We represent Colonel Carl Crane, USAF retired, who is the inventor of the Crane Allweather Flitegate which is described in the enclosed pamphlet. Colonel Crane is very anxious to make an arrangement with some firm such as yourselves to manufacture and market the Flitegate.

Just recently Colonel James M. Gillespie, USAF retired, who formerly was in command of the Air Forces all weather flying division, called on Harold George of your firm and gave him some information regarding the Flitegate. Both Colonel Crane and Colonel Gillespie felt that it might be advantageous to call this matter directly to your attention.

We shall appreciate it very much if you will look into the situation and, if you feel there is any possibility of a serious interest on the part of Hughes Tool Company, we can arrange for Colonel Crane to make a trip to Los Angeles for a personal discussion of the matter.

Please let us hear from you at your convenience.

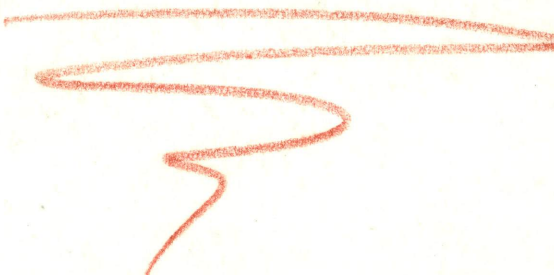
Sincerely,

WILLIAM M. CASSIN

WMC:S

BCCs Colonel James M. Gillespie  
Colonel Carl Crane

*Le Flitegate*





C - O - P - Y

CARL J. CRANE, M.E.  
Varsity Village Building  
833 Bandera Road  
San Antonio 1, Texas.

June 5, 1952

Mr. William M. Cassin  
Lentz, Newton & Company  
Alamo National Building  
San Antonio 5, Texas

Dear Mr. Cassin

It is with marked interest that I note the content of the letter from General George dated May 22, 1952, a copy of which was enclosed with your letter of June 3, 1952.

I attach particular significance to this letter for the very fact that Hughes Aircraft Company does not now produce aircraft instruments. This fact, coupled with their apparent work in fire control systems, places them in an enviable position to establish, without internal prejudices and competing products, an instrument division which could well coordinate its products with the airborne fire control systems work.

Should Hughes Aircraft Company choose to do this, their potential and position, talent-wise and geographical-wise is most substantial. In the immediate vicinity of Culver City will be found many small but capable companies engaged in the manufacture of items the components of which in many instances can be adapted to the Finished Alweather Flitegage.

The Alweather Flitegage with its navigational and fire control features is the ultimate pilots' instrument and destined to supplant the old fashioned "split personalities" now adorning the instrument panel. A few of these old timers may remain to provide the co-pilot with stand-by auxiliaries, but not for the serious job of human pilot control of the modern airplane and helicopter, under arduous conditions. The killer tendency of the "personal error" confronted <sup>with</sup> antiquated instrumentation must go. I enclose a little reading material which confirms the estimates of the Hughes Company Flight Section - and 99 percent of the pilots young and old, civilian and military who have viewed, flown, observed and tested the Alweather Flitegage with an open mind.

If the Hughes Aircraft Company chooses to establish an instrument division to produce the Alweather Flitegage and sets about it with determination and a well thought out program,

C - O - P - Y

2.

Ltr. to Mr. Cassin 6/5/52

it is my opinion that they will meet with some initial resistance, which however will melt away, just as did the initial resistance to instrument flight in general, and the use of training aid and simulators in particular. The Hughes Company could well earn a Collier Trophy for it's contribution to air navigation and a continuing profit in the years ahead for it's effort.

I will be happy to cooperate in any reasonable program designed to provide aircraft operators with the possible several models of the Allweather Fliteage which the Hughes Aircraft Company may elect to produce.

Yours very truly,

CJC/lwm  
Encls:  
CAB Rpt. Extract  
Clipping Photostat

CARL J. CRANE, M.E.



June 6, 1952

Mr. Harold George  
Vice President & General Manager  
Hughes Aircraft Company  
Culver City, Calif.

Dear Mr. George:

Enclosed is the original of letter from Colonel Crane, with attachments, dated June 5, 1952, which is self-explanatory. I have retained a copy for our files.

General Gordon has written again to Colonel Gillespie, and he will be in touch with you shortly. As I told you previously, in case your firm should develop an interest to the extent that personal discussions with Colonel Crane are desirable, he can arrange to come to Los Angeles at any time, with reasonable notice.

After you have had sufficient time to give further consideration to the development of the Flitegage, I shall appreciate having your comments and suggestions.

Very truly yours,

William M. Cassin

WMC/rp  
Encs.

BCC: Col. Carl J. Crane

May 27, 1952.

W. H. Nicholson & Company  
200 Oregon Street  
Wilkes-Barre  
Pennsylvania.

Gentlemen:

Will you kindly supply me with your Nicholson  
Float Bulletin 650 as noted in your advertisement on page 288 of  
the March issue of PRODUCT ENGINEERING.

In my particular work it is not unlikely that  
your product may be specified.

Very truly yours,

CJC/lwm.

CARL J. CRANE, M.E.



May 27, 1952.

Accurate Spring Manufacturing Co.  
3815 West Lake Street  
Chicago 24, Ill.

Gentlemen:

Will you kindly supply me with a copy of your  
Accurate Handbook of Technical Data on Springs as noted in your  
advertisement on page 343 in the March issue of PRODUCT ENGINEERING.

In my particular work it is not unlikely that  
your product may be specified.

Very truly yours,

CJC/lwm.

CARL J. CRANE, M.E.



May 27, 1952.

The Sponge Rubber Products Company  
502 Derby Place,  
Shelton, Conn.

Gentlemen:

Will you kindly supply me with your booklet -  
"Properties of and Technical Data on Cellular Rubber" as noted  
in your advertisement on page 360 of the March issue of PRODUCT  
ENGINEERING.

In my particular work it is not unlikely that  
your product may be specified.

Very truly yours,

CJC/lwn.

CARL J. CRANE, M.E.

May 27, 1952.

Ferro Electric Products, Inc.  
Kirkland,  
Illinois.

Gentlemen:

Will you kindly supply me with your catalog  
as noted in your advertisement onpage 371 of the March issue  
of PRODUCT ENGINEERING.

In my particular work it is not unlikely  
that your product may be specified.

Very truly yours,

CJC/lwm.

CARL J. CRANE M.E



May 27, 1952.

Skinner Electric Valve Division  
The Skinner Chuck Company  
132 Belden Avenue  
Norwalk, Conn.

Will you kindly supply me with your Bulletin  
No. 501 as noted in your advertisement on page 430 of the March  
issue of PRODUCT ENGINEERING.

In my particular work it is not unlikely that  
your product may be specified.

Very truly yours,

CJC/lwm.

CARL J. CRANE, M.E.

May 27, 1952.

Sandsteel Spring Division  
Sandvik Steel, Inc.  
145 Hudson Street,  
New York 13, N.Y.

Gentlemen:

Will you kindly supply me with your Brochure  
"Sandsteel Springs for Dual Power" as noted in your advertisement  
on page 432 of the March issue of PRODUCT ENGINEERING.

In my particular work it is not unlikely that  
your product may be specified.

Very truly yours,

CJC/lwm.

CARL J. CRANE, M.E.



May 27, 1952.

Newark Wire Cloth Company  
351 Verona Avenue  
Newark 4, New Jersey.

Gentlemen:

On page 462 of PRODUCT ENGINEERING for March 1952 you suggest asking for your General Catalogue "D". Kindly send one to the above address.

Currently I am working on a project that requires the straining of small food particles and similar debris from cooking oils that have accumulated these foreign particles in the process of deep fat frying of several types of foods. It is my opinion that a stainless steel wire cloth may be satisfactory as a filtering &/ or straining medium. Should you care to comment when sending your catalogue, the same will be appreciated, advising if you manufacture a stainless steel metallic cloth.

Very truly yours,

CJC/lwm.

CARL J. CRANE, M. E.

May 28, 1952.

Allegheny Ludlum Steel Corporation  
Dept PE-29  
Oliver Building  
Pittsburgh 22, Pa.

Gentlemen:

Kindly supply me with your Tool Steel Handbook  
as noted in your advertisement on page 293 of the May issue of  
PRODUCT ENGINEERING.

Very truly yours,

CJC/lwm.

CARL J. CRANE, M.E.



May, 28, 1952

The Pierce Governor Company, Inc.  
Anderson, Indiana.

Gentlemen:

Kindly supply me with information and prices  
on your Governor Used on all Industrial Engines as noted on page  
260 of the May issue of PRODUCT ENGINEERING.

Very truly yours,

CJO/lwm.

CARL J. CRANE, M.E.

June 3, 1952.

The Celotex Corporation  
Department RM-42  
120 LaSalle Street  
Chicago 3, Illinois.

Please send me a free copy of  
the Celotex booklet, "Business Interiors That Attract and Win  
Customers" as advertised in the April issue of RESTAURANT  
MANAGEMENT.

Very truly yours,

CJC/lwm.

CARL J. CRANE, M.E.



June 4, 1952.

Wells Manufacturing Company  
220 Ninth Street  
San Francisco 3  
California.

Gentlemen:

On page 76 of RESTAURANT MANAGEMENT for April I note with considerable interest a description of the WELLS FRYER. I am particularly interested in the notation under numeral 4 in which you state in part "You use the same fat over and over - and still have delicious fried food that builds up profit".

I am conducting certain studies for a client who is interested in this particular problem, and it may be to our mutual interest and profit if your engineering department would supply me with any data relating to your studies in connection with types and classes of fats, as these are adapted to the particular design of your fryer.

The requested courtesies will be appreciated.

Very truly yours,

CJC/lwm.

CARL J. CRANE, M.E.

June 19, 1952

Newark Wire Cloth Company  
351 Verona Avenue  
Newark 4, N.J.

Gentlemen:

I am in receipt of your very fine catalog D which you sent in response to my request.

I have read the catalog very carefully and since my problem relates to the straining and filtering of cooking fats similar to Wesson Oil it is my opinion that one of the filter cloths described on page 47 of your catalog may fulfill the requirement. It is my opinion that stainless steel or monel metal filter cloth would be most acceptable.

As noted on page 5 of your catalog perhaps your engineering service department would like to recommend the type of mesh that would be most suitable for straining and filtering small quantities ( $\frac{1}{2}$  gallon at a time) of fat that have accumulated small quantities of food such as bits of batter, potatoes, and particles of meat & fish.

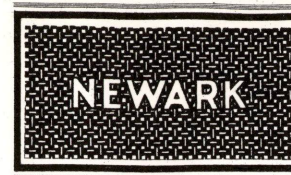
I would appreciate your recommendation and should you care to send a small sample of the recommended cloth ( say 6 inch square) it may assist me in the design of the device that currently occupies my attention.

Very truly yours,

CJC/lwm.

CARL J. CRANE, M.E.





# NEWARK WIRE CLOTH COMPANY

MANUFACTURERS OF  
INDUSTRIAL WIRE CLOTH—FABRICATED STRAINERS  
TESTING SIEVES • A. S. T. M.—U. S. STANDARD  
"END-SHAK" SIEVE SHAKER

*Woven Wire Screens*  
CABLE ADDRESS  
WIRECLOTH NEWARK

351 VERONA AVENUE  
NEWARK, 4, N. J.

July  
11th  
1952

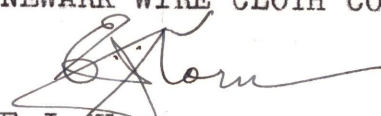
Carl J. Crane, M.E.  
Varsity Village Building  
833 Bandera Road  
San Antonio 1, Texas

Dear Mr. Crane:

In compliance with the request in your letter of July 8th, we are arranging to forward under separate cover, one piece measuring approximately 6" x 8" of 24x110 Grade Monel Filter Cloth.

Very truly yours,

NEWARK WIRE CLOTH COMPANY

  
E.J. Korn

el

cc rhb

## VACATION NOTICE

This plant will be closed for vacation from July 28th to August 9th, 1952.

Newark Wire Cloth Company

# **SOUTH TEXAS COTTON OIL COMPANY**

MANUFACTURERS AND REFINERS OF

COTTON SEED PRODUCTS

HYDROGENATED OILS

Houston 1, Texas

P. O. Box 337

June 17, 1952

GENERAL OFFICES  
HOUSTON, TEXAS

CABLE ADDRESS  
"SOTEXOIL"

MILLS AT  
AUSTIN, TEXAS  
BROWNSVILLE, TEXAS  
CORPUS CHRISTI, TEXAS  
HARLINGEN, TEXAS  
HEARNE, TEXAS  
HOUSTON, TEXAS  
ROBSTOWN, TEXAS  
TAYLOR, TEXAS  
VICTORIA, TEXAS

REFINERIES AT  
HOUSTON, TEXAS  
SAN ANTONIO, TEXAS

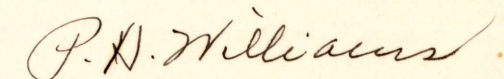
Mr. Carl J. Crane, M. E.  
Varsity Village Building  
833 Bandera Road  
San Antonio 1, Texas

Dear Mr. Crane:

Your letter of June 4th was referred to me in which you requested information relative to clarification of used shortening by straining or filtration. I am not too well acquainted with procedure used in industry on a large scale, but I know the bulk of the small company users use straining devices which are nothing more than a funnel and cheese cloth. This works very satisfactorily where only small quantities of fat are to be reclaimed. For large users it is my understanding that they use pressure filtration and these filters are available.

I would suggest that you call on the large potato chip manufacturer in San Antonio and they will be able to supply you with more information than I have been able to do.

Yours very truly,



P. A. Williams

PAW/ml

cc: Mr. R. B. Trussell



June 25, 1952.

Mr. P. A. Williams  
South Texas Cotton Oil Company  
P. O. Box 337  
Houston 1, Texas.

Dear Mr. Williams:

Your letter of June 17th which was in reply to my enquiry regarding the method of straining or filtering used shortening has been received with appreciation.

Your assistance in this matter has resulted in obtaining some quite satisfactory information.

Very truly yours,

CJC/lwm

CARL J. CRANE, M.E.

E N G I N E E R S



M A N U F A C T U R E R S

5200 HARVARD AVENUE • CLEVELAND 5, OHIO  
BROADWAY 1-2200 • CABLE 'AIRMAZE'

July 8, 1952

Mr. Carl J. Crane, M. E.  
Varsity Village Building  
833 Bandera Road  
San Antonio 1, Texas

Dear Mr. Crane:

In reply to your letter of June 25, we are very pleased to attach a brochure  
containing information on our line of air and liquid filtration equipment.

If further information regarding any of this equipment is required, please let  
us know.

Very truly yours

AIR-MAZE CORPORATION

*N. L. Lamprecht*  
N. L. Lamprecht  
Asst. Sales Manager

NLL:mg

Encl.

AIR FILTERS • FILTER SILENCERS • BREATHERS • EXHAUST SPARK ARRESTERS • OIL SEPARATORS • OIL FILTERS • GREASTOP FILTERS • INTAKE FLAME ARRESTERS



June 25, 1952.

Air-Maze Corporation  
Cleveland 5  
Ohio.

Gentlemen:

Your advertisement in TIME MAGAZINE for June 23 rd inspires me to ask you for any engineering information you may have in the form of a standard catalogue that could be readily sent for reference and study.

Currently I am busy with two straining and filtration problems. One of these concerns the straining and/or filtering of hot fats used in the deep fat frying of various foods. The other problem concerns generally the filtering of air that is being circulated in a room in order to remove dust particles that normally accumulate on various mechanical elements of a conventional fan.

Any specific answers, or catalogue or similar data will be appreciated.

Very truly yours,

CJC/lwm.

CARL J. CRANE, M.E.

of technical German you might save this cost.

I trust that the above suggestions will assist you in formulating a plan for considering each project which will save both of us some time and will unquestionably result in saving you unnecessary expense.

With kindest regards, I am,

Very truly yours,

CJC/lwm.

CARL J. CRANE, M.E.

June 21, 1952.

Mr. Joseph Robson  
1930 W. Gramercy  
San Antonio, Texas.

Dear Mr. Robson:

It was indeed a pleasure to meet with you yesterday. I was sorry that my haste to keep an engagement at St. Marys University prevented me from giving you more time.

I am enclosing a folder which I hope you will read carefully. I suggest that with the purpose of saving considerable time and perhaps money on your part, that you, together with some trusted friend segregate the various items that apparently are of interest to you. The next step suggested is to select those which you feel have the most promise and list all of the projects in order of priority. Also try to give each project a name, such as Refrigeration Project, Gun Project, and the others that apparently are contained in the material you had with you.

Following this I suggest that you try to determine what you would like to do with each item when considered from the point of view of the personalized service that I am prepared to render to you as described in the enclosed folder.

Your attention is particularly invited to the description of this service which begins on page four of the enclosed folder.

After you have prepared yourself by determining precisely what course of action you would like to pursue, please call me between 9:00 and 12:00 a.m. at the telephone number listed on my enclosed business card for an initial appointment in order to determine the nature of each project.

I have available to me a capable German translator who will make a small charge for the necessary translations. Prior to making the translations I will give you an estimate of the charge. In the event that you have a translator



HEADQUARTERS  
SAN ANTONIO AIR MATERIEL AREA  
KELLY AIR FORCE BASE, TEXAS

OFFICE OF THE COMMANDING GENERAL

9 June 1952

Colonel Carl J. Crane (Ret'd)  
Box 116  
Helotes, Texas

Dear Carl:

I got a kick out of your announcement. I guess the principle kick came from the fact that I didn't have to buy a fork or a spoon since the envelope indicated the possibility of another young American coming into the world.

Does this mean that you have opened an office or does this mean that you have stopped operating out at Stinson Field?

The idea is very clever.

Sincerely,

*Mac*  
CLEMENTS McMULLEN  
Major General, USAF

*Answered  
6/20/52*

*W*



*Electrical and Lubricating Devices*

**TRICO FUSE MFG. CO.**

NORTH FIFTH AT WEST CHAMBERS

MILWAUKEE 12, WIS.

June 23, 1952

Creative Engineering  
833 Bandera Rd.  
San Antonio 1, Texas

Att: Mr. Carl J. Crane, M. E.

Dear Mr. Crane:

Here is your copy of a TRICO "Maintenance Dollar Saver" broadside which you requested.

This folder illustrates the TRICO line and explains briefly why each item is highly endorsed by leaders of industry. The claims made are based upon performance facts - the result of definite economies established in thousands of TRICO installations.

TRICO PRODUCTS are original and distinctive in every respect; designed to appeal to those who desire the utmost value in safety, efficiency and dependability.

Prove to yourself that TRICO PRODUCTS are a lasting time and money-saving investment. Prompt service is assured and we suggest that you place your order with our representative - Wm. E. Brice Co., 1512 Pease Ave., Houston 3, Texas.

RGK:el:B

FLB-300-C  
I. Q.

Yours very truly,

TRICO FUSE MFG. CO.



July 1, 1952.

Mr. Robert F. Williams  
General Supply Company  
904 Buena Vista Street  
San Antonio, Texas.

Dear Mr. Williams:

My friend of many years standing, Wilson F. Southwell suggested that I forward to you the enclosed folder which is descriptive of a service that you or perhaps your friends may find of interest.

I shall seek an opportunity of meeting with you some time in the near future.

Sincerely yours,

CJC/lwm  
Encl:  
cc W.P. Southwell

CARL J. CRANE, M.E.

*file*

July 1, 1952.

Mr. D. R. Crowley  
Crowley Feed Company  
601 N. Medina Street  
San Antonio, Texas.

Dear Mr. Crowley:

It was a real pleasure to have made the acquaintance of you and Mrs. Crowley at the delightful home of our mutual friends the Schillers.

Our good friends suggested that you may find something of interest in the enclosed folder, and after reading it you may care to pass it on to some other person who may enjoy reading it.

At the first opportunity I will stop in for a visit with you.

Sincerely,

CJC/lwm  
Encl:

CARL J. CRANE, M.E.

*file*



July 1, 1962

Mr. B. E. Isenhour  
355 Hearne Avenue  
San Antonio, Texas.

Dear Mr. Isenhour:

It was very nice to talk with you over the phone last week, and I likewise appreciate Mr. Magavern's interest in suggesting my possible service to you.

Enclosed is a folder that you and possibly some of your associates may enjoy reading.

Kindly let me hear from you, or stop in some morning if possible between nine and twelve.

Very truly yours,

CJC/lwm  
Encl: folder

CARL J. CRANE, M.E.

*file*

July 1, 1952.

Mr. F. W. Dempsey  
2024 Winona Street  
San Antonio, Texas.

Dear Mr. Dempsey:

Mr. Ross Barham of Helotes, Texas who has been a long time friend suggested that I forward to you a copy of the enclosed brochure. I trust that you will find something of interest in this folder, and will look forward to the time when I may have the pleasure of meeting you. I am usually in the office from nine to twelve and would appreciate a call from you at your convenience.

Sincerely,

CJC/lwm  
encl:

CARL J. CRANE, M.E.

*File*



July 7, 1952

Mr. Walter C. Gunstream, Manager  
San Antonio Municipal Airport  
San Antonio, Texas

Dear Walter:

The occasion of presenting you with the enclosed brochure of my newer set-up will also give me the opportunity to express to you, and through you, to Mr. Williams the sincere appreciation of your kindness of giving Jack Lapham and myself the consideration that enabled me to work close to the shops of Garner Instrument Co.

I feel somewhat in your debt in that it never seemed possible to be of service to you and your group in actively participating in the machinery of civil defense. Perhaps the time may come when I can be of greater service to you.

After you read the enclosed folder you may care to pass it on to others who may be interested in my service.

Kindly express to Mr. Williams my appreciation of his many courtesies, and give me a call if I may serve you in any capacity.

Cordially yours,

Enclosure

Carl J. Crane, M.E.

*File*



July 11, 1952

Mr. Francis Bowen  
Bowen Auto Parts and Machine Company  
305 Martinez Street  
San Antonio, Texas.

Dear Francis:

It was very nice meeting with you at the Treibers.  
Needless to say many memories came galloping back during the pleasant  
conversation.

I noted your picture in the newspaper this week  
with a very nice write-up about your business, and I hope you will  
have an ever increasing measure of good fortune. Kindly remember me  
to Amanda, and take the trouble and read the enclosed brochure, and  
pass it or the information it contains along to those who may have  
need of my services.

With sincere good wishes, I am,

Cordially yours,

CJC/lwm

CARL J. CRANE, M.E.

*File*



9-14-56

Dear Paul:

The enclosures are designed to keep you posted on the latest trends towards the Allweather Flitegage.

The article in AVIATION WEEK elicited a number of "letters to the Editor" from various people. The photostatic copy of letter from Mr. Philip Klass was answered by my letter of Sept. 11th a copy of which is marked for your attention.

You will note that many of the elements that were proposed to the air force in 1951 as embodied in the Flitegage are now shown in the article "in mock-up form" as new concept. Hence the many letters to the Editor.

I will watch for the promised article in Aviation Week and send you a copy.

When are you going to run for Governor of Texas?

Sincerely,

Hon. Paul J. Kilday, M.C.  
Washington, D. C.

Allied Chemical & Dye Corporation  
Dept. 89-7, Solvay Sales Division  
40 Rector Street  
New York 6, N.Y.

Gentlemen:

Kindly supply me with your booklet describing the  
Air-Dryette, Jr. I would also like any other engineering information  
you may have available relating to dehydrating moist atmosphere.

The name of Kallison's on South Flores Street of this  
city is suggested.

Very truly yours,

CJC/lwm

CARL J. CRANE, M.E.



August 1, 1952

American Gear & Supply Company  
3838 Leeland Street  
Houston, Texas.

Gentlemen:

Kindly send me a catalogue and any other  
information on your stock of Gears and Plate Sprockets and oblige,

Very truly yours,

CJC/lwm

CARL J. CRANE, M.E.



August 1, 1952.

Geo. J. Fix Company  
2413 Commerce Street  
Dallas, Texas.

Gentlemen:

Kindly send me a catalogue and any other  
information on your stock of Gears, Drives, Pulleys etc.

Very truly yours,

CJC/lwm

CARL J. CRANE, M.E.



August 18, 1952

Product Engineering  
99 North Broadway  
Albany 1, New York.

Gentlemen:

My August issue of PRODUCT ENGINEERING practically fell apart in my hands due to poor binding so that I would appreciate another copy as all copies get very hard usage. Should you desire the return of the one I have I will be glad to return it to you.

Very truly yours,

CARL J. CHANE, M.S.

CJC/lm



PEARL BREWING COMPANY



SAN ANTONIO, TEXAS

October 9, 1952

F-0231  
Weissler

Mr. Carl J. Crane, M. E.  
833 Bandera Road  
San Antonio 1, Texas

Dear Mr. Crane:

Thanks for sending me a copy of your brochure on Creative Engineering. This is a most interesting approach and you are to be complimented on your ingenuity.

I sincerely hope that this new venture will prove both interesting and remunerative.

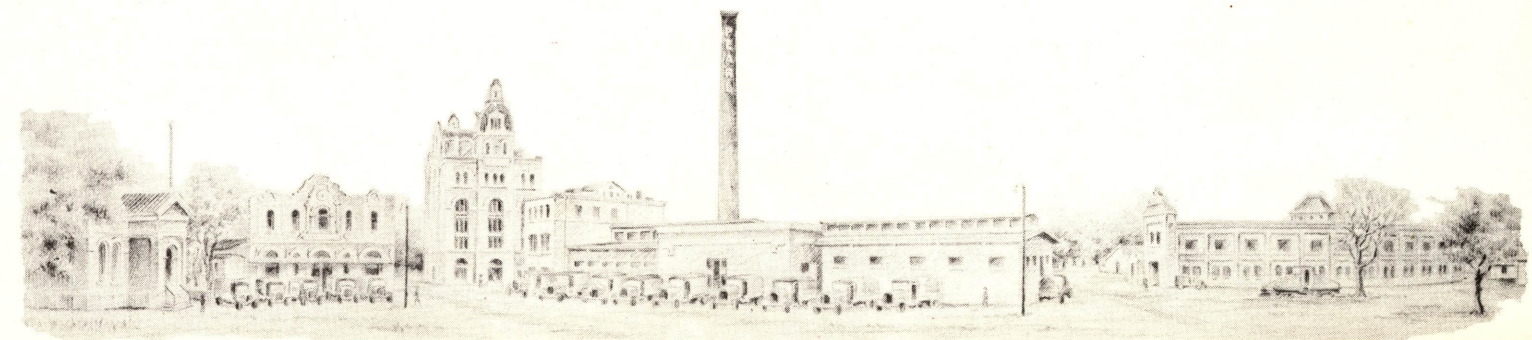
Very truly yours,

*Datus E. Proper*

Datus E. Proper  
Vice Pres. & Gen. Mgr.

DEP-mk

*Thanked him personally 4/0*  
*Mr. 146 W. Almos*





September 17, 1952

Commanding General  
Air Research and Development Command  
P.O.Box 1395  
Baltimore 3, Maryland.

Attention: RDDQ

Dear Sir:

Your esteemed letter, copy attached, dated September 10, 1952 is acknowledged with appreciation.

We shall look forward to the possibility of serving the Air Force in the solution of any of its many problems which come within the scope of our capabilities and techniques.

Very truly yours,

CJC/lwm

*CJC*  
*lwm* CARL J. CRANE, M.E.



HEADQUARTERS  
AIR RESEARCH AND DEVELOPMENT COMMAND  
Post Office Box 1395  
Baltimore 3, Maryland

IN REPLY ADDRESS BOTH COMMUNICATION AND ENVELOPE  
TO CG, ARDC, ATTENTION FOLLOWING OFFICE SYMBOL

RDDQ

10 SEP 1952

Mr. Carl J. Crane, M. E.  
833 Bandera Road  
San Antonio 1, Texas

Dear Mr. Crane:

It is desired to acknowledge for Lt. Gen. Earle E. Partridge receipt of your recent sales "Eye Opener" entitled "Creative Engineering".

Although at present we have no particular problem for referral to you, your name has been entered in our records of concerns which are interested in providing engineering services to the Air Force.

We appreciate the interest you have taken in the Air Force's engineering problems and welcome your continued participation.

Sincerely yours,

*for* *W. H. Randall* *Col. USAF*  
WILLIAM N. D'ETTORE  
Colonel, USAF  
Director of Equipment  
Office, Deputy for Development

*Rev. 9-13-52*  
*an "official" reply to a*  
*personal letter directed to*  
*Lt Gen + Mr. E. E. Partridge!*

*ep*

9-329



September 23, 1952.

Mr. E.H.Runden, Jr.  
Accurate Spring Mfg. Co.  
3811 West Lake Street  
Chicago 24, Ill/

Dear Mr. Runden:

Your letter of September, 19 has been received.

We appreciate your prompt reply and at your suggestion will write to the reference given relating to the device called a "Negator". It is likely that this device may perform the same function as the constant load spring described by my client.

Very truly yours,

CJC/lwm

CARL J. CRANE, M.E.





**ACCURATE SPRING MFG. CO.**

3811 WEST LAKE STREET, CHICAGO 24, ILL. • VAN BUREN 6-5900

*Manufacturers*  
SPRINGS  
WIRE FORMS  
STAMPINGS

September 19, 1952

Mr. Carl J. Crane, M.E.  
Varsity Village Building  
833 Bandera Road  
San Antonio 1, Texas

Dear Sir:

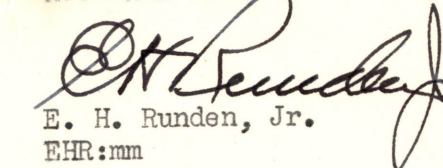
Thank you for your letter of September 17th. We hope our handbook will be of assistance to you.

Regarding your questions on a constant load spring, we know of no simple spring which will accomplish the purpose described. However, there has been designed a device for the purpose. It is called a "Negator" and descriptive literature can be obtained by writing the Spring Division of Hunter Pressed Steel Company of Cleveland, Ohio.

Hoping this information may be of use to you, we are

Very truly yours,

ACCURATE SPRING MFG. CO.

  
E. H. Runden, Jr.  
EHR:mmm



September 5, 1952

Major General F.O. Carroll, USAF  
c/o Air University  
Maxwell Air Force Base  
Montgomery, Alabama

Dear Frank:

The little reunion with you at the Meltons was thoroughly enjoyed. It seemed like delightful old times in Panama and at Dayton to be able to talk over, however briefly some of the experiences and adventures that we have enjoyed together. I would like more of this so when you come our way again please give me a little advance notice in order that I can be prepared to receive you.

The enclosures may give you a bit of an idea of my current effort.

I trust that you and Clara and the children are well and that all are following on the beam of their illustrious Dad and Mother.

Sincerely,

CARL J. CRANE, M.E.

CJC/lwm  
Encls:



August 28, 1952.

Lieutenant General Leon W. Johnson  
Commanding General  
Continental Air Command  
Mitchell Air Force Base, N.Y.

Dear General Leon:

It was good to note in this mornings San Antonio Express that you were able to walk away, as we say, from a burning flying machine.

I checked weather reports for Pennsylvania yesterday and accordingly estimate that weather was not a factor in the accident. Never-the-less I am enclosing a little folder that you may like to glance through. You may even like to make a comment or two. The latest flight studies made on Model 3 Flitegaga by CAA resulted in a most optimistic report.

I hope that you will be blessed with many future happy landings.

Sincerely,

CJC/lwm  
Encl:

CARL J. CRANE, M.E.



September 17, 1952

Mr. Tom Ashley, Managing Editor  
Flight Magazine  
P.O. Box 750  
Dallas, Texas.

Dear Tom:

The editorial page of FLIGHT for September was read with keen interest, and with a measure of compassion for those who remain to mourn the passing of Pop Cleveland.

If you should read the enclosed brochure you may note the final line I have added to the quoted prayer on page 9.

There is something significant in my experience to a thirteen year period of waiting. There are not many of those periods left. With a measure of satisfaction I note that recommendations I made regarding light plane training in 1939 are "coming 'round the mountain". About the same time I also recommended the installation of signalling equipment (between instructor and student) to provide airborne "Link" trainer experience. This too may come in order to give the fledgling pilot early experience in instrument work and actual, but simulated GCA, ILS, and other approach landings where he could see and feel the result of his ability in the air. It also took thirteen years for the Air Force to adopt the Ocker-Crane full panel coordinated system of instrument flight technique. I hope it will not take thirteen years to provide all airmen with a philosophically sound Alweather Fliteage. The interest is still high, with inquiries from foreign sources and local operations people and the latest pat on the back from my good friend L.W. Schwien who said in a recent letter that he now understands better the need for a Fliteage after accumulating a thousand hours of solo flying time. As you know Schwien is a very fine instrument maker.

Your editorial "For Simpler Navigation" is another example of the patience coupled with applied energy, that is, needed in the "pursuit of happier landings", which I trust will be your good fortune as time goes on.

Sincerely,

CJC/lwm  
Encl:

CARL J. CRANE, M.E.

C  
O  
P  
Y

October 24, 1952

The bellows Company  
Dept. PE-952  
Bellows Building  
Akron 9, Ohio

Gentlemen:

Kindly provide me with your Bulletin 01-30  
as advertised in PRODUCT ENGINEERING.

Very truly yours,

CJC/lwm

CARL J. CRANE, M.E.

COPY



October 24, 1932

The Carpenter Steel Company,  
120 W. Bern Street.,  
Reading  
Pennsylvania

Gentlemen:

Kindly send me a Carpenter Stainless Slide  
Chart as advertised in the August issue of PRODUCT ENGINEERING.

Very truly yours,

CJC/lwm

CARL J. CRANE, M.E.

October 24, 1952

Soreng Manufacturing Corporation  
Dept. N29  
9555 Soreng Avenue  
Schiller Park, Ill.

Gentlemen:

Kindly provide me with further details on  
Model 12880 Soreng Solenoid as noted in PRODUCT ENGINEERING.  
In the event you have a general catalogue on Solenoids I would  
appreciate having one for reference.

Very truly yours,

CJC/lwm

CARL J. CRANE, M.E.



August 21, 1952

Very Reverend Louis J. Blume, S.M.  
President  
St. Mary's University  
San Antonio, Texas

Dear Father Blume:

Here is a little check for \$20.00 as per the last one sent to you to cover Brother Ed's effort to help on the Seed project. To date I have not been able to consummate the agreement with Mr. White on the Seed project in spite of Pat Legan's good help. If and when I do you will not be forgotten.

Sincerely,

CJC/lwm

CARL J. CRANE, M.E.

ST. MARY'S UNIVERSITY  
SAN ANTONIO 1, TEXAS



OFFICE OF THE PRESIDENT

July 25, 1952

Carl J. Crane, M.E.  
833 Bandera Road  
San Antonio 1, Tex.

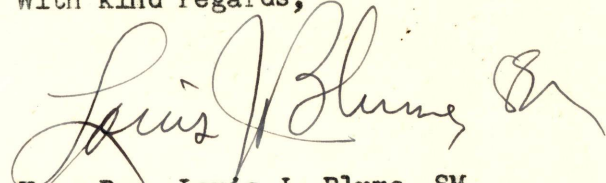
Dear Carl:

Thank you for your kindness and the enclosed check. I hope all goes well on the SEED project.

Unfortunately I was unable to return in time Sunday before the group dispersed. There was a Saturday demonstration at Fort Sill about which we were not forewarned so I was delayed a full day in returning.

Have you had an opportunity of discussing further your over-all plan as well as the particular project with Brother Ed Collignon and Brother Joseph Siemer?

With kind regards,

  
Very Rev. Louis J. Blume, SM  
President

LJB/dp



July 18, 1952.

Very Reverend Louis J. Blume, S.M.  
St Mary's University  
Cincinnati Avenue  
San Antonio, Texas.

Dear Father:

The enclosed check represents 25% of the small retainer fee I have received so far from my client who is interested in an answer on the SEED project. I expect to forward like checks during the next few months, as I search for an appropriate answer to the problem. If an answer is forthcoming there is likely to be a continuing income for both of us.

Please extend my good wishes to Brother Ed and ask him to call me whenever he feels that a get-together is warranted. I will look forward to seeing you on Sunday.

Sincerely,

CARL J. CRANE, M.E.

CJC/lwm

*check # 034*



SOUTHWEST RESEARCH INSTITUTE

8500 CULEBRA ROAD  
SAN ANTONIO 6, TEXAS

July 9, 1952

Colonel Carl J. Crane  
Varsity Village Building  
833 Bandera Road  
San Antonio 1, Texas

Dear Colonel:

I appreciated very much your letter of July 3 and want you to know that I too enjoyed very much our meeting. I have distributed a memorandum about the meeting and I am sure that both you and ourselves will be on the alert for activities of mutual interest. The whole activity we are both engaged in is one that has tremendous challenge and one in which the successes can be of benefit to a lot of people.

Sincerely yours,

Harold Vagtborg/js

*Harold Vagtborg*  
President

*File*



SOUTHWEST RESEARCH INSTITUTE

8500 Culebra Road  
San Antonio, Texas

July 3, 1952.

Dr. Harold Vagtborg, President  
Southwest Research Institute  
8500 Culebra Road  
San Antonio, Texas.

Dear Dr. Vagtborg:

The meeting with you on last Tuesday was most enjoyable and stimulating. I shall look forward to other occasions of like nature.

I hope many opportunities will develop which will permit me to describe to others the tremendous potential possessed by Southwest Research Institute, and more specifically to direct them to investigate the capabilities of your superb organization.

From time to time you may find it impossible to deal with minor projects that come to your attention. Some of these may have merit and yet may be of insufficient stature to challenge the interest and capacity of your personnel, or to warrant the use of your equipment. I would like to interview those whom, for this reason, you must turn away, and accordingly will appreciate it if you will keep my card handy for this purpose.

In return it may be possible for me to enhance in some small way the fine reputation you have established for Southwest Research Institute as it's president.

Sincerely,

OJC/lwm

CARL J. CRANE, M.E.





SOUTHWEST RESEARCH INSTITUTE

8500 CULEBRA ROAD  
SAN ANTONIO 6, TEXAS

June 27, 1952

Mr. Carl J. Crane  
833 Bandera Road  
San Antonio, Texas

Dear Mr. Crane:

I have been very much interested in the brochure that you recently sent me and would like to have a visit with you.

I think it would be particularly well if I could visit with you here at the offices of the Institute so that you can see what we are doing and together we can explore any possibilities in our mutual interest. If you will call my office (S-4-4221, Ext. 23), we can arrange an appointment at your convenience.

Sincerely yours,

Harold Vagtborg/js

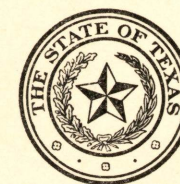
*Harold Vagtborg*  
President

*Mrs. Seals*

*File*



*Texas Engineers  
Library*



Gift of

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TEXAS ENGINEERS LIBRARY

COLLEGE STATION, TEXAS

March 10, 1953

OFFICE OF THE LIBRARIAN

The State Board of  
Registration for Professional  
Engineers and the A. & M.  
College of Texas cooperating

Dear Fellow Engineer:

You are cordially invited to be with us on the occasion of the dedication of the Texas Engineers Library on the campus of The Texas A. & M. College at College Station. This dedication will be held at the new Texas Engineers Library Building at 10:00 a.m., Thursday, March 26, 1953.

In the original proposal to the State Board of Registration for the establishment of the Texas Engineers Library, the Board of Directors of A. & M. College agreed to construct a building to house the Texas Engineers Library. It has been planned so as to be especially suited to the needs of professional engineers. We know that you will be delighted with the facilities it offers and with its practicability.

This dedication marks an important milestone in the development of a great technical collection that will be of vital importance to engineers in this State. Because of this, we are inviting all the Registered Engineers in Texas to be with us. Present and past members of the Board of Registration are also being invited.

After the dedication, a luncheon will be held in the Memorial Student Center at 12:15. Colonel Willard Chevalier, Executive Vice President of McGraw-Hill Publishing Company, will be the principal speaker. The cost of the luncheon will be \$2.00. Tickets may be secured from the Dean of Engineering. Since it is necessary that we know how many to plan for, we ask that you send your check by March 19 for the number of luncheon tickets you want. All correspondence should be directed to H. W. Barlow, Dean of Engineering, Texas A. & M. College, College Station, Texas.

Very truly yours,



H. W. Barlow  
Dean of Engineering



## THE TEXAS ENGINEERS LIBRARY

By specific authority of the Forty-seventh Legislature the Texas Engineers Library was established by the Texas State Board of Registration for Professional Engineers, and is located on the campus of the Texas A. & M. College at College Station, Texas. It is operated as a cooperative project of the Board and the College.

The Texas Engineers Library has for some time been serving the registered professional engineers. The collection includes approximately 13,000 books and 10,000 bound and unbound volumes of periodicals. Approximately 700 periodicals are being received currently. There are also nearly 800 maps in the collection, mainly in the fields of geology and petroleum. The librarian will undertake to borrow on interlibrary loan from the larger technical libraries of the East and Midwest any material not in the Texas Engineers Library which an engineer might request.

A printed catalog of the library's holdings was compiled in 1948, and a copy of this catalog was sent to every registered engineer at that time. Copies of this catalog are no longer available. The professional engineers of Texas are invited and urged to make use of the library by either correspondence or personal visit. In any case, the staff of the library will help you in finding whatever you may be seeking.

Photostat facilities are available on the A. & M. campus, and the library will make production of any needed items or articles at the prevailing rate. Suggestions in the way of book titles, periodicals, or any other library materials from the professional engineers are invited. Suggestions for improvement of service, or criticisms of the present service will be welcomed.

A number of engineers have wished to be identified with the work of the Texas Engineers Library and have contributed in cash or gifts of books, old magazines, bulletins, etc. If you, likewise, have had the desire to make such a gesture you will be interested in the enclosed book plate. Some may prefer to make a cash donation by check, while others may prefer to send books or other materials they would like to share with others. In either case the name of the donor will be suitably inscribed on a book plate such as the one enclosed. All communications should be addressed to:

Robert E. Betts, Librarian  
Texas Engineers Library  
College Station, Texas

March 10, 1953



TEXAS SOCIETY OF PROFESSIONAL ENGINEERS

AFFILIATED WITH THE NATIONAL SOCIETY  
OF PROFESSIONAL ENGINEERS

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403 NASH BUILDING

AUSTIN 1, TEXAS

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April 22, 1953

Carl J. Crane, P. E.  
Box 116  
Helotes, Texas

Dear Engineer Crane:

Please find attached hereto your certificate of  
membership in the Texas Society of Professional  
Engineers.

With very best wishes, I am

Very truly yours,

*Henry Harkleroad*  
Henry Harkleroad  
Executive Secretary *by a.a.*

HH:aa  
Attach:



September 15, 1952

Mr. W.P. Southwell  
510 North Presa Street  
San Antonio, Texas

Re: Marking Device and Dispenser

Dear Wilson:

This will confirm our meeting of last Saturday at which time we discussed various factors related to the design and experimental construction of devices for marking of clothing, and for methods, devices and/or machines for dispensing the marking devices.

Since talking with your son, during your absence and with you since your return I feel quite certain that it will be possible to arrive at a satisfactory marking device and kit that can be

- (1) dispensed by machine
- (2) sold over counter by handy method and device
- (3) conveniently assembled and packaged for mail order sales.

In the design of this device several structures will be considered. Each will require some research and correspondence with manufacturers of component products. Possible minor design changes of their products to meet our requirements will be suggested, and cost and time factors will be evaluated to determine the economy of the final structure to be adopted.

The design of marking device will keep in mind that it, together with a kit (containing pad, ink and brush) must be marketed by one or all of the methods indicated in paragraph 2, above.

The design of the dispensing device (of whatever form selected by you) from several alternate arrangements will require considerable study, design drawings and some basic experimental construction before proceeding to the construction of an acceptable product for installation and use.

I estimate that within approximately 45 to 60 days I can supply you with

- (1) completed designs for several "marking kits";



and

- (2) general designs for dispensing devices; and
- (3) three complete kits for evaluation.

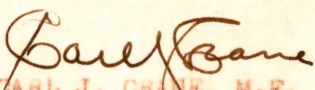
My charge for this Phase I service will be \$450.00 which will include all the material and service, photographs, description (needed for patent evaluation) and models noted in the preceding paragraph.

I have just contacted a nearby group of engineering draftsmen and engineers to determine if they could assist my design effort by supplying detail drawings for shop use. They can provide some assistance (at \$5.00 per hr.), but my plan is to take my own design sketches direct to shop personnel wherever possible in order to pass on to you every possible saving and economy.

At this time it is difficult to give you an estimate of the cost (of Phase II) of the design and construction of the dispensing device. This can better be estimated after you have selected a product for sale and chosen from Phase I the general nature of the dispensing method or machine. After this selection is made it could take from 4 to 6 months, depending on the pressure demanded of the project, to get an acceptable production device. I would like again to serve you as economically as possible and to this end I am willing to render my services during Phase II of the project for \$100.00 per month. The costs of material and outside services (machine work, etc) will be passed on to you at cost, which in your interest will be obtained at the lowest figure consistent with a satisfactory product.

If this program meets with your approval, as is, or with modifications you can, either initial the copy of this letter and return it, or call me for further discussion of the project.

Sincerely,

  
CARL J. CRANE, M.E.

CJC/lwm

Authority is granted  
to proceed with Phase I

\_\_\_\_\_  
W.P. Southwell

Date \_\_\_\_\_



October 28, 1952

Mr. G. Noel Bolinger, President  
CAN-O'-LITE DIVISION  
STANLEY GINNIE CO., Inc.  
*Philbyville, Pa.*

Dear Mr. Bolinger:

Thank you for your letter of October 24th  
and likewise for the two samples of the CAN-O'-LITES which have  
just arrived.

As per your suggestion I enclose the dollar  
bill, which will eliminate the need for C.O.D. procedure.

It is my opinion that your neat little product  
will nicely adapt itself to the item discussed in my letter to you  
dated October 22nd, so as soon as the patent work is a little  
further along I shall send you the complete information upon which  
you can reach a decision as to your possible interest in the product.

Perhaps in the mean time you might like to give  
me a better understanding of your line of manufactured items, for  
it may be possible that I may find other items that may be of interest  
to you.

Cordially yours,

CARL J. CRANE, M.E.

CJC/lm

*Silver Certificate*  
#238425 777F  
Serial 1935-D  
A 7213



# CAN-O'-LITE

DIVISION STA-RITE Ginnie Lou, Inc.  
SHELBYVILLE, ILLINOIS, U.S.A.

October 24, 1952

Mr. Carl J. Crane, M.E.  
Varsity Village Building  
833 Bandera Road  
San Antonio 1, Texas

Dear Mr. Crane:

We're glad to know, from your letter of October 22nd, that Can-O'-Lite has come to your attention, and it is interesting to note that you endeavored to obtain a patent on something similar a number of years ago.

In keeping with your request, we are sending you two Can-O'-Lites today by parcel post, but to save you the expense of paying C.O.D. charges, we will appreciate your just dropping a dollar bill into the enclosed reply envelope and sending it back to us.

When you get the patent application filed on the new product you are working on, which might be of interest to us in connection with Can-O'-Lite, we shall be glad for you to tell us more about it, and we shall be glad to give it careful consideration to see if anything might be worked out on it to our mutual advantage.

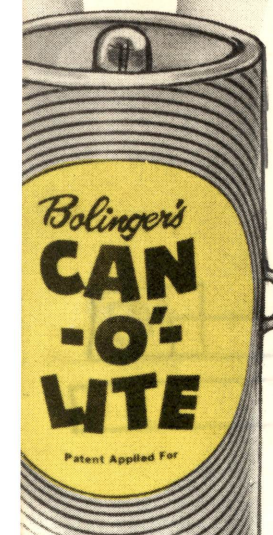
Sincerely yours,

CAN-O'-LITE DIVISION  
STA-RITE Ginnie Lou, Inc.

*G. Noel Bolinger*

President

G. Noel Bolinger:rb



THE DISPOSABLE THRIFT LIGHT



DIVISION STA-WITE GINITE INC  
SHELVILLE, ILLINOIS 624

CAN-O-WITE

October 24, 1952

Mr. Carl J. Crane, M.E.  
Vernity Village Building  
823 Sanders Road  
San Antonio 1, Texas

Dear Mr. Crane:

We're glad to know, from your letter of October 22nd, that you have some interest in our product, and it is interesting to note that you have endeavored to obtain a patent on something similar a number of years ago.

In keeping with your request, we are sending you two Can-O-Wite today by parcel post, but to save you the expense of paying a O.D. charge, we will appreciate your just dropping a dollar bill into the enclosed reply envelope and sending it back to us.

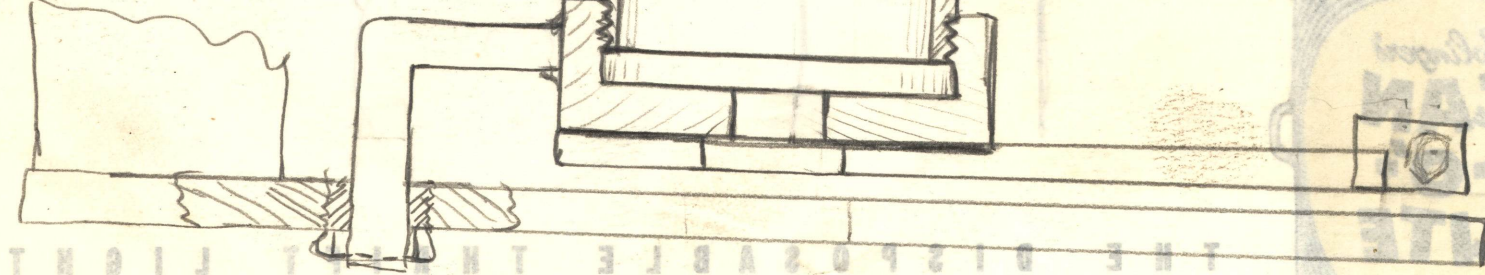
When you get the patent application filed on the new product you are working on, which might be of interest to us in connection with Can-O-Wite, we shall be glad to tell us more about it, and we shall be glad to give it careful consideration to see if anything might be worked out on it to our mutual advantage.

Sincerely yours,

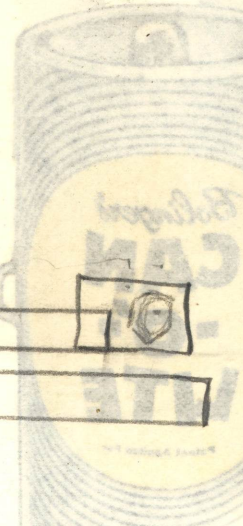
DAN O'-LITE DIVISION  
STA-WITE GINITE INC.

President

G. Noel Bolinger



THE DISPOSABLE THERM LIGHT





October 22, 1952

Sta-Rite Ginnie Lou, Inc.  
Shelbyville, Ill.

Gentlemen:

It was interesting to note the description  
of Bollinger's Can-O-Lite.

About twelve years ago I tried to apply for  
a patent on a similar arrangement at which time I discovered prior  
art which discouraged my effort at that time. This is one reason  
why I am so interested in your product and would appreciate having  
from you further descriptive matter and actually one or two samples  
sent C.O.D. if you please.

A more important reason for my current interest  
in Can-O-Lite is that I am now preparing patent application on an  
item relating to flashlights that would be particularly adaptable  
to your product. This item would make a remarkable running mate  
for Can-O-Lite but additionally it would provide you with a low  
cost (.29 to .39 cents) accessory for all existing flashlights  
irrespective of size and manufacture.

Kindly provide me with your comment.

Very truly yours,

CJC/lwm

CARL J. CRANE, M.E.



# CAN-O'-LITE

DIVISION STA-RITE Ginnie Lou, Inc.  
SHELBYVILLE, ILLINOIS, U.S.A.

October 30, 1952

Mr. Carl J. Crane, M.E.  
Varsity Village Building  
833 Bandera Road  
San Antonio 1, Texas

Dear Mr. Crane:

We appreciate receiving your letter of October 28th and the dollar bill to cover the two Can-O'-Lites sent you.

We shall look forward to hearing further from you on the neat little product you are developing when you complete your patent work on it.

Regarding the other products which we manufacture, these are confined chiefly to bobby pins and other hair accessories. The enclosed circulars will describe some of these products.

Sincerely yours,

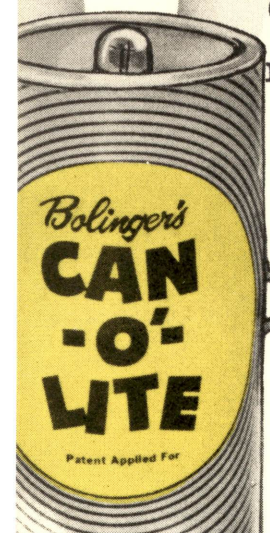
CAN-O'-LITE DIVISION  
STA-RITE Ginnie Lou, Inc.



President

G. Noel Bolinger:rb

Enclosures



T H E   D I S P O S A B L E   T H R I F T   L I G H T



AMERICA'S ONLY COMPLETE HIGH-QUALITY BOBBY PIN LINE



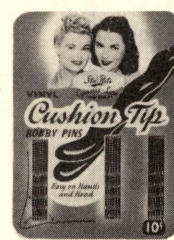




Nationally



Advertised



All 10¢ retail numbers are also available packed ½ blk. & ½ bro. per 3 doz. display				Color	Unit Pack	Dozen Per Case	Lbs. Per Case	Cost Per Dozen
	<b>STA-RITE GINNIE-LOU Bobby Pins</b>  Most popular half-round steel bobby pin. Plasti-Koated card will not soil. Pins will spread to 70 degrees and return. Invisible and inconspicuous in the hair. Free hairsetting tips on back of card.  Retail 10¢	<b>No. 222</b> 30 pins per card 24 pins per card  <b>No. 222A</b> 24 pins per card	Black Bronze Gold Silver  Black Bronze	1 or 3 dozen  1 or 3 dozen display	60  60	30  26		
	<b>STA-RITE SUPER-HOLDING Bobby Pins.</b>  So s-m-o-o-t-h, so firm such rounded ends -- will not pierce the scalp -- gentle is the word for No. 77. Another STA-RITE scoop -- comes in TRUE brown. Check -- look hard -- only STA-RITE makes brown bobby pins, the true match.  Retail 10¢  Also available in Zip (No crimp style).	<b>No. 77</b> 30 pins per card 24 pins per card  <b>No. 77A</b> 24 pins per card	Black Brown Gold Silver  Black Bronze	1 or 3 dozen display  1 or 3 dozen	60  60	35  28		
	<b>STA-RITE CUSHION TIP Bobby Pins.</b>  New *rubber tipped bobby pins -- so smooth -- your head can't feel them. Pre-tested -- first revolutionary idea in bobby pin merchandising in 20 years. 4 color attractive Plasti-Koated Card.  Retail 10¢	<b>No. 228</b> 24 pins per card  <b>No. 228A</b> 18 pins per card	Black Bronze  Black Bronze	1 or 3 dozen display  1 or 3 dozen display	60  60	26  20		
	<b>STA-RITE CUSHION TIP Bobby Pins.</b>  Same new *rubber tipped bobby pin as on No. 228. 4 color attractive Plasti-Koated Plus Value Card.  Retail 25¢	<b>No. 128</b> 72 pins per card  <b>No. 128A</b> 54 pins per card	Black Bronze  Black Bronze	1 dozen display  1 dozen display	28  28	35  29		
	<b>STA-RITE Hi-Test Flex Bobby Pins.</b>  100 half-round bobby pins. Same pin as on No. 222. Largest selling half-round style. 4 color attractive Plasti-Koated card. Your best buy for your customers.  Retail 25¢	<b>No. 122</b> 100 pins per card	Black Bronze	1 dozen display	24	36		

\*Vinyl Plastic -- Not affected by heat, cold wave or similiar solution  
All prices net. Invoice terms 2/10. Prices subject to change without notice.

MADE IN SHELBYVILLE ILLINOIS, U. S. A. BY STA-RITE Ginnie Lou, Inc.









Nationally





Advertised



	Number	Color	Unit Pack	Dozen Per Case	Lbs. Per Case	Cost Per Dozen
 <b>STA-RITE Doll Bobby Pins</b> Amazing new bobby pins -- just 1½" long. Dainty - Flexible - any child can use them. Ideal impulse sale tie-in item. Attractive 4 color plastic-coated card. A must for every toy department. Retail 10¢	<b>No. 266</b> 30 pins per card	Black Bronze	3 doz.	60	18	
 <b>STA-RITE Ringlet Curl Pins</b> Dainty little bobby pins that anchor ringlets, waves and loose ends invisibly. Especially popular for short coiffures. Retail 10¢	<b>No. 265</b> 30 pins per card	Black Bronze	1 or 3 dozen	60	18	
 <b>STA-RITE Tiger Strong TUFFY BOBS</b> Extra-strong and tough for holding longer and extra hair pieces. Also excellent for holding fat pin curls or for side clasp. 2¼ inches long. Retail 10¢  Also available in 3" length.	<b>No. 999</b> 10 pins per card  <b>No. 33</b> 6 pins per card	Black Brown  Black Brown	1 doz.  1 doz.	60  60	30  22	
 <b>STA-RITE Lovely Lady Bobby Pins.</b> These bobby pins are quality-high and are available for your customers who wish a 5¢ package Retail 5¢  DISCONTINUED	<b>No. 666</b> 18 pins per card	Black Bronze	3 doz.	60	20	

RESALE HAIR PIN PACKINGS

 <b>STA-RITE Patented Hair Pins</b> The little flare that holds the hair. Demanded by your older clientele. All hair pin users know and prefer STA-RITE hair pins. STA-RITES stay in. Retail 10¢	<b>No.</b> 601-1-1/2" 602-1-7/8" 603-2-1/4" 604-2-1/2"	Black Bronze Silver	1 doz.	60	35 38 42 48	
 <b>STA-RITE Ginnie-Lou Hair Pins</b> Common Hair Pins attractively carded for counter display. Fast moving and profitable. STA-RITE hair pins are a must for hair pin users. Retail 5¢	<b>No. 210 Inv.</b> 1-3/4" 2"  <b>No. 211 Hvy.</b> 2" 2-1/4" 2-1/2"	Black Bronze  Black Bronze	3 doz.	39	17 19  17 21 24	

All prices net. Invoice terms 2/10. Prices subject to change without notice.

MADE IN SHELBYVILLE ILLINOIS, U. S. A. BY STA-RITE Ginnie Lou, Inc.



November 28, 1952

Mr. G. Noel Bolinger  
President  
CAN-O'-LITE Division  
STA-RITE Ginnie Lou, Inc.  
Shelbyville, Illinois

Dear Mr. Bolinger:

Your letter of October 30th is deeply appreciated.

I will reply at some greater length in the near future regarding the several items that we have under discussion but in the mean time I would like to ask you to forward a few samples of CAN-O'-LITES to the Commanding General, San Antonio Air Materiel Area, marked for the personal attention of Major General Clements McMullen, United States Air Force, at Kelly Air Force Base, Texas.

General McMullen was in my office last Thursday and was shown one of the sample lights you sent to me. He seemed to think that there could be some application of the flashlight in the Air Force, and if so it may mean a tremendous demand for your light. Accordingly I suggest that you send him at least a dozen flashlights without obligation, and perhaps write him a letter giving details of prices, etc. and any other information you think may be of value. I feel certain that General McMullen will pass these lights around for appropriate tests and comments.

While you await my next letter please read through the enclosed brochure and be good enough to let me have your comment. Perhaps you may care to pass it along to others after you have read it.

Sincerely yours,

CARL J. CRANE, M.E.

CJC/gwc  
Enclosure



23 December 1952

Mr. G. Noel Bolinger  
Can-O'-Lite Division  
STA-RITE Ginnie Lou, Inc.  
Shelbyville, Ill.

Dear Mr. Bolinger:

I have received the samples of Can-O'-Lite flashlights which you so kindly sent at the suggestion of Mr. Crane. I presently have them in test and hope to be able to give you a report on them by the middle of February.

The Air Force uses many thousands of flashlights. Presently, we are stocking parts for those flashlights. It seems to me that your idea is very sound. If a profit could be made on this light at a wholesale price of about fifteen cents, I think the Air Force would be very attracted to their purchase.

Very truly yours,

CLEMENTS McMULLEN  
Major General, USAF  
Commanding

cc: Col Crane



The **BOLINGER** Fireplace

**6** offers these  
IMPORTANT  
**ADVANTAGES**

**1. Stops floor drafts**

Inasmuch as a special duct supplies the air that is required, the *BOLINGER* fireplace does not draw a draft across the floor in front of the fireplace.

**2. Permits easy control of fire**

Control damper regulates flow of air under or over grate so that the fire can be speeded up or slowed down.

**3. Provides greater personal comfort**

By eliminating floor drafts and making it easy to regulate the fire, greater comfort is assured.

**4. More attractive and neater**

Method of design hides the space below the fire grate and retains fallen ashes. Construction also permits the fireplace to be located at a higher level, if desired.

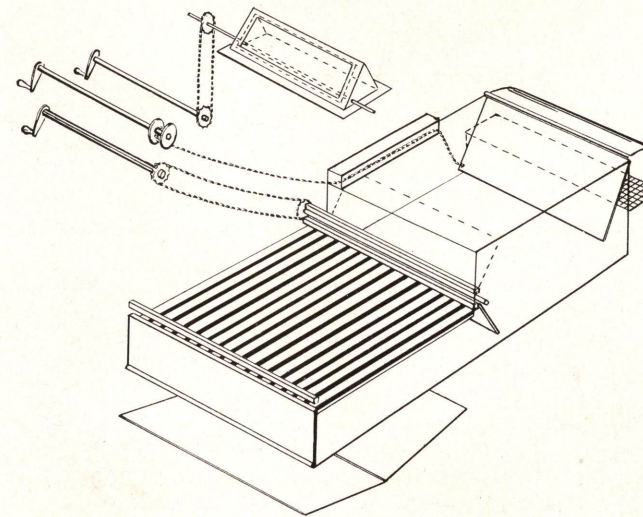
**5. Offers means of ventilation in summer**

Air duct to outside can be opened in summer for ventilation purposes.

**6. A health preserver**

The *BOLINGER* fireplace is supplied with oxygen from outdoors. Consequently, it does not burn up the oxygen from the air inside the house.

**HERE is the unit  
you buy** ↓



**Your contractor or brick  
mason does the rest . . .**

The installation of a *BOLINGER* fireplace is a simple procedure. The unit is built in such a manner that it can be set in place easily and quickly by your contractor or brick mason when he is building your fireplace.

In writing for quotations please advise (1) what width fireplace you are planning and (2) the distance between its rear wall and the outside of your house. If you are building a new house and have an extra set of plans, we should be glad to have you mail them to us. Then, we can recommend the best procedure for you to follow in installing a *BOLINGER* fireplace.

Patent No. 2,409,731

**Designed and Patented by**

**G. NOEL BOLINGER**  
SHELBYVILLE, ILLINOIS, U. S. A.

*The*  
**Bolinger**  
DRAFTLESS  
CONTROLLABLE  
**FIREPLACE**



Provides additional com-  
fort and beauty in any  
home.

**See Specific Advantages** ↓



**The BOLINGER design  
makes ordinary old style  
fireplaces OBSOLETE!**

When watching a fire burning in a fireplace, have you ever asked yourself, "Where does the air, that goes up the chimney, come from?"

Ordinary fireplaces have no air inlet, so they draw their requirements of air from any place they can get it. Usually it is drawn from around windows and doors and then across the floor. The cool draft is not only uncomfortable, but also unhealthy for anyone sitting before the fire.

Many times the draft is so strong that it takes much of the heat out of other rooms in the house and thus proves quite wasteful.

The *BOLINGER* fireplace eliminates this floor draft by supplying outdoor air, through a special opening, direct to the fire. Therefore, it provides greater personal comfort and reduces heat losses.

Have you ever tried to regulate the burning speed of a fireplace? Ordinarily, old style fireplaces have been equipped with little or no way of regulating them. In the *BOLINGER* fireplace, however, a single damper controls the amount of air that is forced either over or under the fire grate. By moving this damper, the fire is easily controlled.

Fireplaces, in homes, have always been an important source of pleasure. And now, the patented improvements that are offered in the *BOLINGER* fireplace, provide even greater charm, comfort, and enjoyment for home lovers. See other pages for additional features.

**HOW THE BOLINGER Modern  
Fireplace adds Comfort and Beauty  
to any Home . . .**

The *BOLINGER* fireplace brings additional comfort to any home because it eliminates the floor draft which inevitably flows across the room containing an ordinary fireplace.

In the *BOLINGER* fireplace, an air duct extends from the back of the grate to the outdoors. The opening is large enough to furnish all of the air that is needed for combustion. Consequently, the fireplace does not have to draw air across the room.

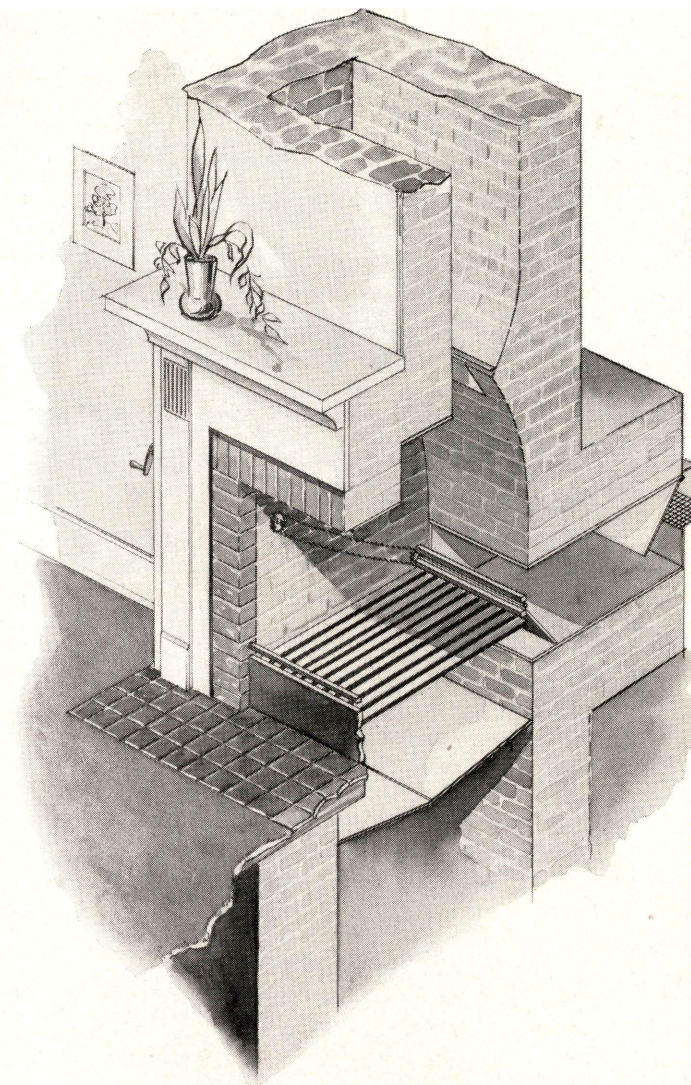
The air duct is arranged in such a position that the air can be directed, by means of a single damper, either under or over the fire grate. By sending the air under the grate a forced draft is created and the burning is speeded up. Or by sending the air over the grate the burning may be decreased.

The *BOLINGER* fireplace is more attractive than an ordinary one because a solid plate seals off the section which extends from the fire grate to the floor. Such an arrangement hides the ashes which fall from the fuel and gives a neater appearance.

It is this solid front plate which makes it possible to control the burning speed of the fire by turning the control damper. If desired, this damper can be turned to a position which prevents any air at all from reaching the underneath side of the grate.

The *BOLINGER* fireplace is a health preserver because it burns oxygen from outdoors instead of burning up the oxygen that is indoors. It also eliminates the floor draft caused by ordinary fireplaces.

The *BOLINGER* fireplace grate is constructed so that either wood or coal can be burned on it.



In the summer time it is possible to obtain floor level ventilation through a *BOLINGER* fireplace which aids in cooling a home during the hot months.

It is easy to install a *BOLINGER* fireplace when you are constructing a home or when you are remodeling. You simply purchase the *BOLINGER* fireplace unit which is illustrated on page 6. Your contractor or brick mason will do the rest.



April 6, 1948.

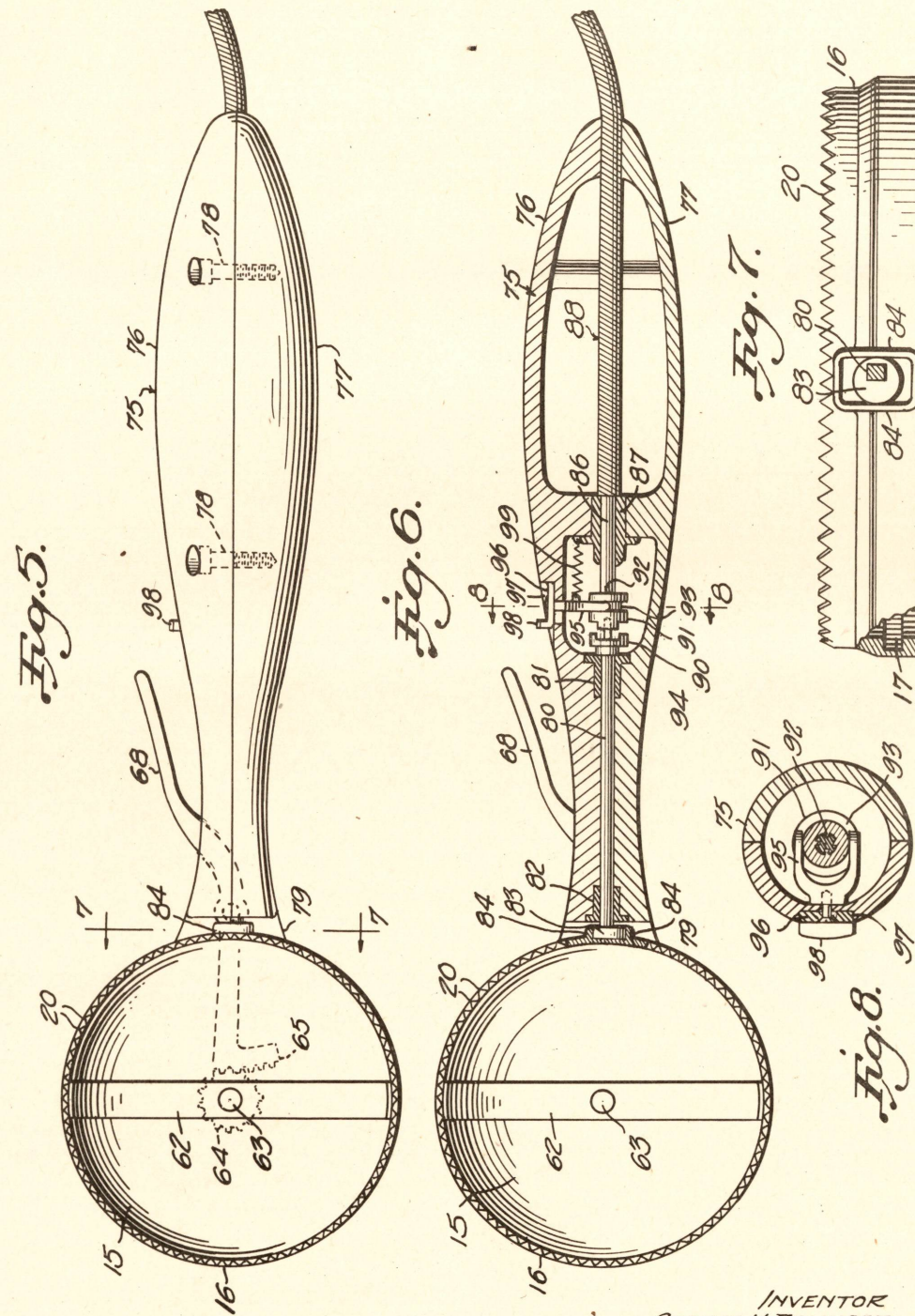
G. N. BOLINGER

2,439,125

ICE CREAM SCOOP

Filed May 19, 1944

2 Sheets-Sheet 2



INVENTOR  
GEORGE N. BOLINGER  
By *C. P. Parker*  
ATTORNEY

April 6, 1948.

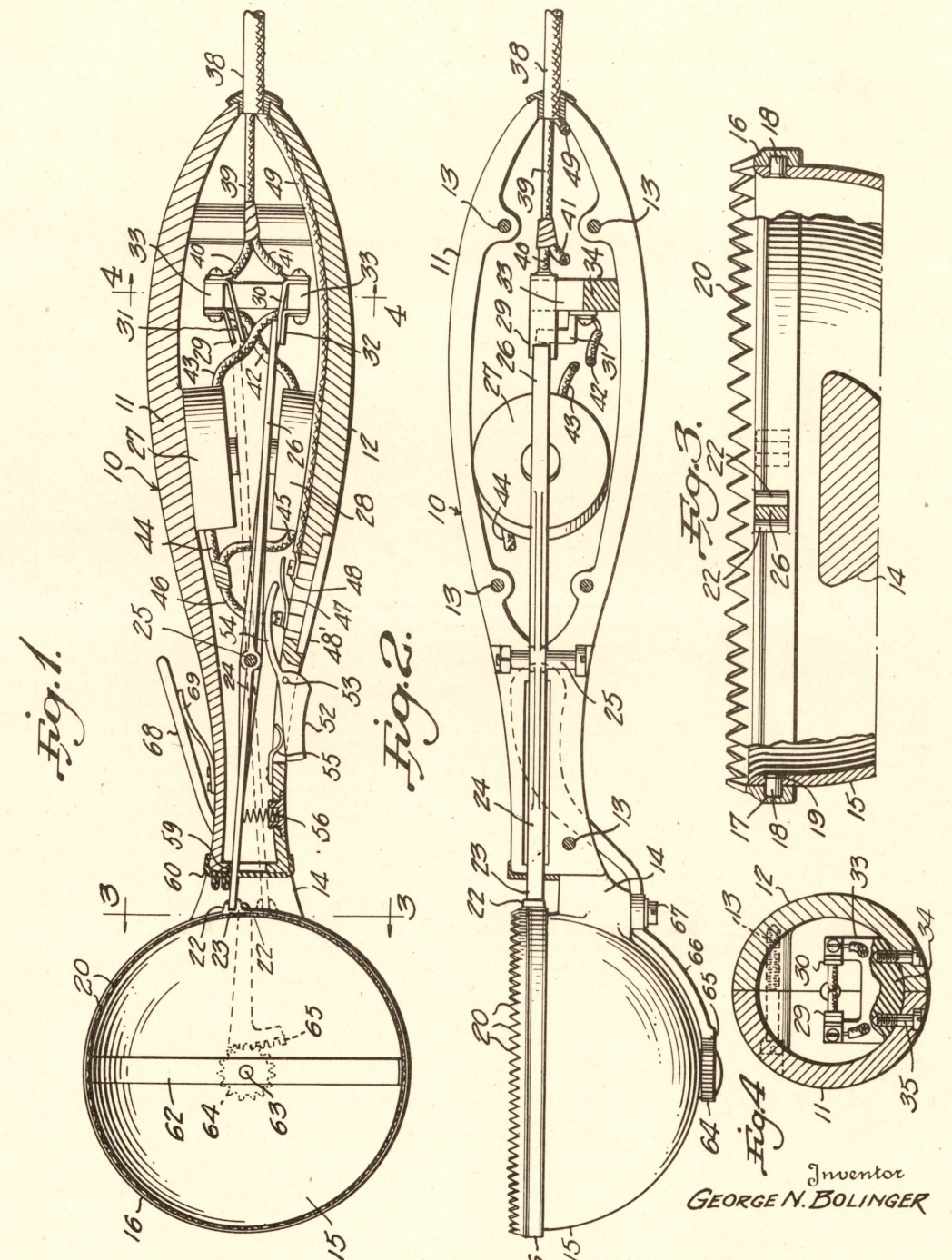
G. N. BOLINGER

2,439,125

ICE CREAM SCOOP

Filed May 19, 1944

2 Sheets-Sheet 1



INVENTOR  
GEORGE N. BOLINGER

By *C. P. Parker*  
ATTORNEY



UNITED STATES PATENT OFFICE

2,439,125

ICE-CREAM SCOOP

George Noel Bolinger, Shelbyville, Ill.

Application May 19, 1944, Serial No. 536,357

12 Claims. (Cl. 107-48)

1

This invention relates to ice cream dippers. As is well known conventional ice cream dippers comprise substantially hemispherical scooping cups connected to handles and are provided with means movable within the cup or scoop to discharge the dipped ice cream therefrom. The scoop is pressed into the ice cream solely by the exercise of physical force, and where the ice cream is frozen particularly hard, great physical effort is required in scooping the ice cream.

An important object of the present invention is to provide a scoop having means associated therewith for assisting in the insertion of the open side of the scoop into the body of the ice cream, regardless of how hard the ice cream is frozen, thus materially reducing the physical effort required in scooping the ice cream.

A further object is to provide a device of this character wherein the edge of the scoop or cup of the device is provided with power-operated means for penetrating into the body of the ice cream without the exercise of substantial physical force by the operator.

A further object is to provide such a device wherein the means for penetrating the ice cream is in the form of an annular member having saw teeth and provided with means for effecting a rapid oscillation of the penetrating means to cause it to cut or saw into the body of the cream.

A further object is to provide such a device wherein the cutting means is readily under the control of the operator's hand which holds and operates the device.

Other objects and advantages of the invention will become apparent during the course of the following description.

In the drawings I have shown two embodiments of the invention. In this showing—

Figure 1 is a longitudinal sectional view through the device taken centrally through the handle, parts being shown in elevation,

Figure 2 is a similar view taken at right angles to Figure 1,

Figure 3 is a section on line 3—3 of Figure 1, parts being broken away,

Figure 4 is a transverse sectional view on line 4—4 of Figure 1,

Figure 5 is an elevational view of a modified form of the invention,

Figure 6 is a longitudinal sectional view through the same, taken centrally through the handle and looking in the same direction as Figure 5, parts being shown in elevation,

Figure 7 is a sectional view taken on line 7—7 of Figure 5, parts being broken away, and

2

Figure 8 is a transverse sectional view on line 8—8 of Figure 6.

Referring to Figures 1 to 4 inclusive, the numeral 10 designates the handle of the device as a whole preferably formed of complementary sections 11 and 12 divided longitudinally of the handle, the two handle sections being secured together in any suitable manner, for example by screws 13. One end of one of the handle elements is provided with an extension 14 which carries a conventionally shaped cup or scoop 15. This scoop may be integral with the element 14 or may be secured thereto in any suitable manner.

A cutting ring 16 surrounds the scoop 15 adjacent its opposite side as shown in Figure 3. This ring is supported in any suitable manner with respect to the scoop 15 to be oscillated about the axis of the ring 16. For this purpose, the ring 16 may be provided with an internal annular groove 17 engageable by a plurality of hardened pins 18 projecting through the scoop 15. In assembling the device, the ring 16 will be placed in position and the pins 18 driven through the openings 19 drilled in the scoop 15, the pins 18 preferably having their inner ends headed as shown and being braised or welded in the scoop 15. The ring 16 projects beyond the edge of the scoop 15 and is provided with a cutting edge preferably in the form of saw teeth 20.

At the side of the ring 16 facing the handle 10, a pair of spaced lips 22 is formed integral with the ring to receive the adjacent end 23 of an operating lever 24, this lever being pivoted on a pin 25 mounted in the handle 10 as shown in Figure 2 and serving as a bearing for the lever 24. The opposite end portion 26 of the lever 24 serves as an armature to be alternately attracted by magnets 27 and 28 carried by the respective handle sections 11 and 12, such alternate attraction of the armature serving to rapidly oscillate the lever 24.

The extremity of the lever end 26, as the lever oscillates, is alternately engageable with spring contacts 29 and 30 and these contacts are respectively movable into engagement with contacts 31 and 32. The four contacts referred to are carried by upstanding posts 33 preferably formed integral with an insulating block 34 secured to the respective handle sections 11 and 12 by screws 35.

A cable 38, connected to a suitable source of current, extends into the free end of the handle and has one wire 39 thereof divided into branches 40 and 41 connected to the respective contacts 29 and 30. The contacts 31 and 32 are connected



up, whereupon the operator will release the finger 52 to stop the operation of the power means. The scoop will then be placed in a proper position over a cone or dish, whereupon the operator will press inwardly on the finger piece 68 to rotate the element 62 and thus dislodge the ice cream within the scoop, in the usual manner.

The releasing of the ice cream from the scoop will release the ring 16 so that the spring 56 can function to return the lever 24 to its normal position shown in Figure 1. Thus the parts of the apparatus are always positioned so that one of the magnets will be energized upon operation of the finger 52. The switch fingers 29 are preferably relatively thin and highly resilient and offer little resistance to operation of the lever 24, and they may be readily bent to their proper adjusted positions. The handle 10 being formed of complementary sections the assembly of the device is greatly facilitated. One of the magnets is secured to each handle section and the various wire connections may be made before bringing the handle sections together. In assembling the device, one of the screws 35 (Figure 4) will be applied and tightened to secure the insulating block 34 in proper position, and the other screw 35 may be applied after the handle sections have been secured together.

In the form of the invention shown in Figure 5 the device is operated in exactly the same manner as in the form of the device described except that the slide 96 is operated to oscillate the ring 16 instead of operating the finger 52. The clutch elements 90 and 91 are normally disengaged and held disengaged by the spring 99. To operate the device, assuming that the source of power is operating to drive the shaft 86, the operator will merely engage the teeth 20 with the surface of the ice cream, push the finger piece 98 forwardly toward the scoop 15 to engage the clutch elements 90 and 91, and then feed the scoop downwardly into the ice cream. The shaft 80 will be driven with the shaft 86 to rotate the cam 83 and thus oscillate the ring 16 very rapidly so that the teeth 20 cut readily into the body of the ice cream. When the scooping action has been completed, the operator will release the finger piece 96, whereupon the spring 99 will disengage the clutch and oscillation of the ring 16 will stop. The handle 68 then may be operated to discharge the ice cream from the scoop.

It will be apparent that the present device substantially minimizes the physical force necessary for the scooping of ice cream, a conventional scoop requiring the expenditure of great force when dipping ice cream which has been frozen very hard. The power driven means of the present device effectively cuts through the body of the ice cream, it merely being necessary for the operator to feed the scoop into the body of the cream with the same motion as is practiced with a conventional scoop.

It is to be understood that the forms of the invention herewith shown and described are to be taken as preferred examples of the same and that various changes in the shape, size and arrangement of parts may be resorted to without departing from the spirit of the invention or the scope of the subjoined claims.

I claim:

1. A material scooping device comprising a handle, a stationary scoop carried by one end of said handle and having an open top of circular form, a cutting device extending at least partially around the open top of said scoop concentric

therewith and supported solely by the edge portion of such open top for oscillating movement about its axis, and power means for oscillating said cutting device.

2. A material scooping device comprising a handle, a stationary scoop carried by one end of said handle and having an open top of circular form, a cutting device extending at least partially around the open top of said scoop concentric therewith and supported solely by the edge portion of such open top for oscillating movement about its axis, power means for oscillating said cutting device, and means carried by said handle for controlling said last named means.

3. A material scooping device comprising a handle, a stationary scoop carried by one end of said handle and having an open top of circular form, a cutting device extending at least partially around the open top of said scoop concentric therewith and supported solely by the edge portion of such open top for oscillating movement about its axis, and power driven means carried by said handle and projecting from said end thereof to engage said cutting device and operable to effect oscillating movement of said cutting device.

4. A material scooping device comprising a handle, a stationary scoop carried by one end of said handle and having an open top of circular form, a cutting device extending at least partially around the open top of said scoop concentric therewith and supported solely by the edge portion of such open top for oscillating movement about its axis, power driven means carried by said handle and projecting from said end thereof to engage said cutting device and operable to effect oscillating movement of said cutting device, and means carried by said handle and including a movable finger piece engageable by a finger of the operator for controlling said power driven means.

5. A material scooping device comprising a handle, a scoop carried by one end of said handle and having an open top of circular form, a cutting device extending at least partially around the open top of said scoop concentric therewith, means for supporting said cutting device for oscillating movement about its axis, a rocking lever arranged in said handle and having one end projecting therefrom and operatively engaging said cutting device whereby rocking of said lever will oscillate said cutting device, and means within said handle for rocking said lever.

6. A material scooping device comprising a handle, a scoop carried by one end of said handle and having an open top of circular form, a cutting device extending at least partially around the open top of said scoop concentric therewith, means for supporting said cutting device for oscillating movement about its axis, a rocking lever arranged in said handle and having one end projecting therefrom and operatively engaging said cutting device whereby rocking of said lever will oscillate said cutting device, electro-magnetic means within said handle for rocking said lever, and a switch device for said electro-magnetic means comprising a finger piece under the control of a finger of the operator's hand while holding said handle.

7. A material scooping device comprising a handle, a scoop carried by one end of said handle and having an open top of circular form, a cutting device extending at least partially around the open top of said scoop concentric therewith and having a recess, means for supporting said

to the respective magnets 28 and 27 by wires 42 and 43. The other ends of the windings of the magnets 27 and 28 are respectively connected to branches 44 and 45 of a wire 46 leading to a spring contact 47 carried by an insulated plate 48. The spring contact 47 constitutes a switch arm movable into engagement with a contact 48 forming a binding post for the second wire 49 from the source. A switch operating finger 52 is pivoted to the handle as at 53 and is provided with an operating arm 54 engageable with the spring contact 47 upon depression of the opposite end of the finger 52, this finger being normally held in inoperative position by a small spring 55.

It will become apparent that when the switch contact 47 is closed, the circuits to the magnets 27 and 28 will be alternately closed to oscillate the lever 24. To insure initial closing of one of these circuits, a spring 56 engages one end of the lever 24 to urge the end 26 thereof to a position engaging the contacts 30 and 32, as shown in Figure 1.

The end of the handle 10 adjacent the scoop 15 obviously is provided with a transversely elongated opening 59 through which the lever end 23 projects, the opening being long enough to permit the necessary oscillatory movement of the lever 24. If desired, the opening 59 may be maintained closed by a thin highly flexible waterproof boot 60 to prevent the entrance of ice cream or any other foreign material into the open handle.

The device is preferably provided with means, which may be conventional, for cutting the ice cream loose from the scoop to permit its discharge therefrom. For this purpose, the device has been shown as having a conventional semi-circular slicing member 62 arranged in the scoop and connected to a short shaft 63 projecting through the bottom of the scoop and carrying a pinion 64. This pinion is engageable by a segment gear 65 carried by one end of a lever 66 pivoted as at 67 to the extension 14. The other end of the lever 66 (Figure 1) terminates in a finger piece 68 normally urged outwardly from the handle 10 by a suitable spring 69.

In the form of the device just described the power means for operating the ring 16 is contained within the handle of the device. In the form of the invention shown in Figures 5 to 8 inclusive, an external power source may be employed and the power may be transmitted to the ring 16 to oscillate it by means of a flexible shaft and other drive means to be described. The scoop and the elements associated therewith are identical with the corresponding elements described above, except as noted below, and the same reference numerals have been applied to the corresponding parts.

The handle of the modified form of the device is indicated as a whole by the numeral 75 and is formed of longitudinally divided complementary sections 76 and 77 secured together by screws 78. One of the handle sections carries a projection 79, similar to the projection 14 previously described, and by which the scoop 15 is carried. Within the handle is arranged a shaft 80 journaled in bearings 81 and 82 and one end of this shaft carries a cam 83 engageable against opposite flanges 84 formed integral with the ring 16. The shaft 80 may be squared, as shown in Figure 7, at the end thereof to which the cam 83 is connected, and the cam may be suitably secured as by welding to the shaft 80.

In alinement with the shaft 80 is a second shaft 86 journaled in a suitable bearing 87 and the shaft 86 is connected to a conventional flexible shaft indicated as a whole by the numeral 88 and having the usual flexible sleeve projecting from the free end of the handle 75, the flexible shaft being driven by an electric motor, a compressed air motor or any other suitable source of power. The shafts 80 and 86 are respectively provided with clutch elements 90 and 91 the latter of which is splined on the shaft 86 as at 92 and is provided with a groove 93. The shaft 80 may be provided with a pilot 94 entering the adjacent end of the shaft 86 to maintain the two shafts in fixed axial alinement.

Obviously, the clutch element 91 is slidable on the shaft 86 but is fixed against rotation with respect thereto. This clutch element is moved into engagement with the clutch element 90 to drive the shaft 80 by means of a fork 95 the arms of which are arranged in the groove 93. The fork 95 is rigidly connected to a slide 96 arranged in a recess 97 formed in the handle 75, and the slide 96 is preferably provided with a finger piece 98 to facilitate its operation. The fork 95 is urged to a clutch-disengaging position by a suitable spring 99.

The operation of the form of the invention shown in Figures 1 to 4 inclusive is as follows:

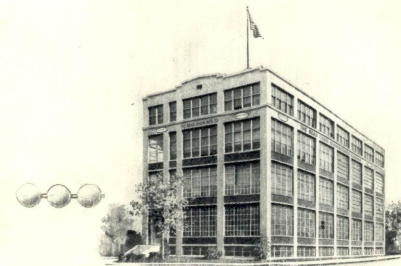
The spring 56 urges the lever 24 to the solid line position shown in Figure 1, the spring contact 31 being engaged against the contact 32. When the operator is ready to use the device, the open side of the scoop is turned downwardly over the ice cream in the freezer, in the usual manner, whereupon the operator will depress the switch finger 52. The arm 54 will engage the spring contact 47 and move it into engagement with the contact 48. A circuit thus will be closed through wires 39 and 41, contacts 30 and 32, wire 43, magnet 27, wires 44 and 46 and contacts 47 and 48, and thence back to the source through wire 49. Thus the magnet 27 will be energized to attract the armature end 26 of the lever 24 to swing this lever in a counterclockwise direction as viewed in Figure 1. Such movement almost immediately releases the contact 30 from the contact 32, thus breaking the circuit to the magnet 27. The momentum of the lever will carry it into engagement with the end of the core of the magnet 27, prior to which the lever end 26 will have moved the spring contact 29 into engagement with the contact 31. A circuit will then be established from wires 39 and 40 through contacts 29 and 31 to the magnet 28, and thence through wire 45 and back to the source through the elements previously described. Energization of the magnet 28 reverses the movement of the lever 24, the lever then turning in a clockwise direction as viewed in Figure 4. This operation is repeated to continue the rapid oscillation of the lever 24 and the lever end 23, engaged between the lips 22, will effect oscillation of the ring 16 on its axis. The oscillatory movement obviously will be very rapid and the teeth 20 of the ring 16 will readily cut through ice-cream which has been frozen extremely hard, the operator exerting only enough force to feed the scoop into the ice cream as the cutting action progresses. The force required will be very slight, being only a fraction of that necessary for cutting into a stiffly frozen body of ice cream with a conventional scoop.

The action referred to will be continued until a sufficient quantity of ice cream has been scooped









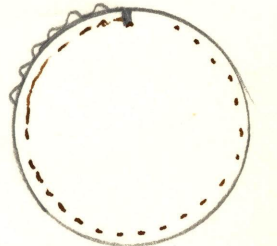
## THE BEAD CHAIN MANUFACTURING CO.

BRIDGEPORT 5, CONNECTICUT  
110 MOUNTAIN GROVE STREET

Telephone 4-4124

November 5, 1952

Carl J. Crane, M. E.  
Varsity Village Building  
833 Bandera Road  
San Antonio 1, Texas



OK  
11/11/52  
Haw

Dear Sir:

Your letter of October 23rd asks for available information on "BEAD CHAIN" sprocket drives.

While we do not manufacture sprockets, we are in a position to suggest the types best suited for use with our product. We are enclosing sketches S-218 and S-219 which show the type of sprockets recommended for use with "BEAD CHAIN" when a positive drive is required. Also, we are enclosing Sketch No. 2 which shows a "V" type pulley suitable for an inexpensive drive where an absolutely positive action is not required.

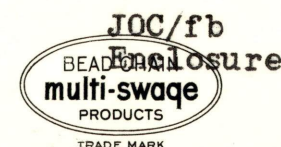
As shown in our catalog, "BEAD CHAIN" is available in various sizes and can be supplied as endless assemblies like the sample 12" length of #6 cleaned brass "BEAD CHAIN" spliced endless. If you care to tell us something about the application you have in mind, we will be glad to furnish suitable samples.

For your sprocket requirements, we suggest you get in touch with either Volland & Sons, Inc., of New Rochelle, New York, or the Gries Reproductor Corp., 780 East 133rd St. New York City, as they are both interested in the development and production of sprockets for use with "BEAD CHAIN".

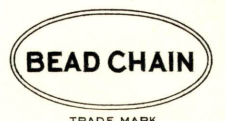
If we can be of further service, please let us know.

Yours very truly,  
THE BEAD CHAIN MANUFACTURING CO.

*J. O. Carlton*  
John O. Carlton  
Manager, Industrial Sales



**B**



THE MOST ECONOMICAL METHOD OF PRODUCING SMALL METAL PARTS TO CLOSE TOLERANCES WITHOUT WASTE



November 12, 1952

Mr. John O. Carlton  
Manager, Industrial Sales  
THE BEAD CHAIN MANUFACTURING CO.  
110 Mountain Grove Street  
Bridgeport, Conn.

Dear Mr. Carlton:

Thank you for your letter of November 5 making reference to sources of information on pulleys for BEAD CHAIN.

Recently I have had a couple of applications for the use of BEAD CHAIN and sprockets. One of these involve a remote reading wind vane in which changes of chain axis is nicely met by BEAD CHAIN. I can visualize a multitude of applications especially in experimental and research activities if a simple low cost and quickly adaptable sprocket were available. I have such designs in mind and you may like to consider their production, for they (in my opinion) would adapt themselves to your manufacturing techniques rather than to sprocket manufacture ~~///~~ considered as such.

As a corollary to this suggestion I would also suggest that you make and supply a wheel type (similar to leather punch) bead closing tool and opening tool which many would purchase in order to provide a handy means for the application of endless chain to a multitude of production as well as experimental and research problems.

You might even sell kits of various size and lengths of BEAD CHAIN with the pulley designs I have in mind, together with the wheel type closure and splitter tool.

I appreciate your reference to Voland & Sons and Gries Reproducer Corporation. Subsequent to further comment from you or your associates I will contact the noted references.

My pulley designs may be patentable. No searches have been made. You may care to study these possibilities and for a nominal charge (outright or royalty) you might like to produce the sprocket arrangement. Obviously no obligation exists unless you are interested in the project.

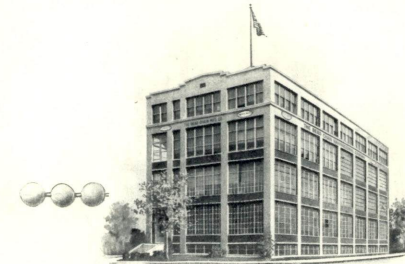
Your further comment is solicited.

Very truly yours,

CARL J. CRANE, M.E.

CJC/lwm





## THE BEAD CHAIN MANUFACTURING CO.

BRIDGEPORT 5, CONNECTICUT  
110 MOUNTAIN GROVE STREET

Telephone 4-4124

November 20, 1952

VIA AIR MAIL

Carl J. Crane, M.E.  
Varsity Village Building  
833 Bandera Road  
San Antonio 1, Texas

Dear Sir:

Thank you for your letter of November 12th.

While we certainly appreciate your interest in our product, we are, at the present time, working very closely with Volland and Sons and plan to do our development work with them before making any further commitments.

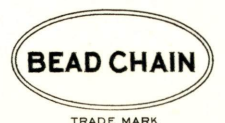
If, however, you have actual applications for our product, we, of course, would be glad to furnish you with any samples you may require and will do our best to be of service at that time.

Yours very truly,

THE BEAD CHAIN MANUFACTURING CO.

*J. O. Carlton*  
John O. Carlton  
Manager, Industrial Sales

JOC/fb



THE MOST ECONOMICAL METHOD OF PRODUCING SMALL METAL PARTS TO CLOSE TOLERANCES WITHOUT WASTE



November 24, 1952

Mr. John O. Carlton  
Manager, Industrial Sales  
The Bead Chain Manufacturing Co.  
110 Mountain Grove Street  
Bridgeport 5, Connecticut

Dear Mr. Carlton:

Many thanks for your letter of November 20.

From your letter it is noted that you are presently working closely with Voland and Sons in the development of appropriate forms of pulleys for BEAD CHAIN, and therefore at the present are not interested in the proposals contained in my letter to you dated November 12.

As you make progress in your development work and approach the time of production of bead chain pulleys I would like to have more detailed information of the items that will be placed in production.

In the event that you should become interested in the notes contained in my letter of November 12 please advise me in order that I may be of service to you.

Sincerely yours,

Carl J. Crane, M. E.

CJC/ gwc



February 17, 1953

Mr. John O. Carlton  
Manager, Industrial Sales  
The Bead Chain Manufacturing Co.  
110 Mountain Grove Street  
Bridgeport 5, Connecticut

Dear Mr. Carlton:

I am still very much interested in the progress you may have had by this time in the development of sprockets for Bead Chain. There are constantly many experimental and other applications that occur to us for Bead Chain sprockets, and for a method of readily forming endless chain from local stocks.

During your development work with others should you like to consider our thoughts and solution to this interesting problem we would like to help you in some way of arriving at the most versatile solution of the problem.

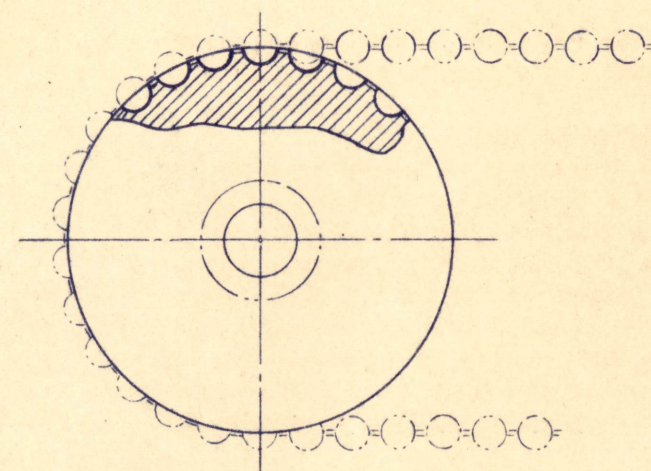
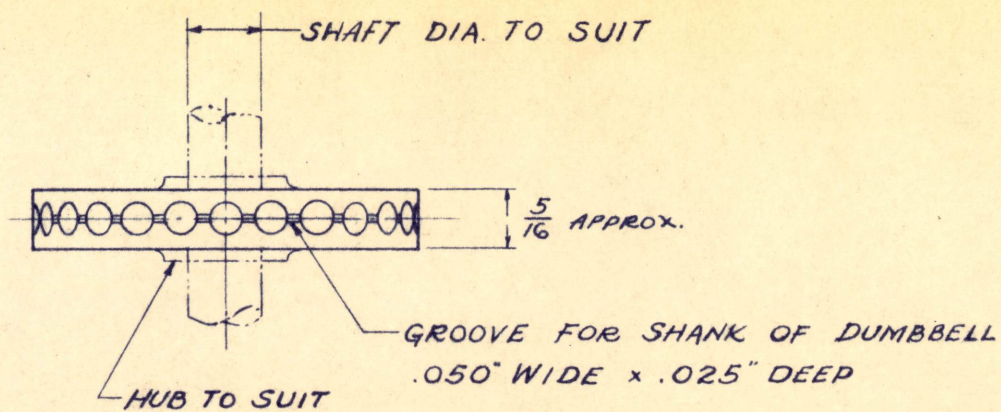
Kindly advise us when stock sprockets become available.

Very truly yours,

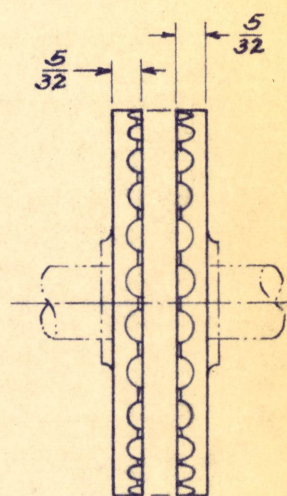
CJC/lwn

CARL J. CRANE, M.E.





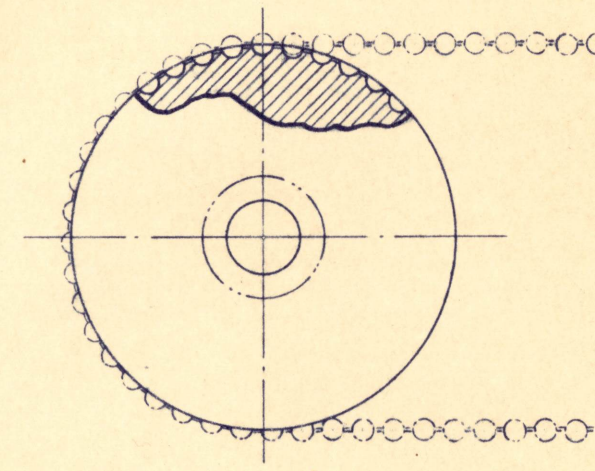
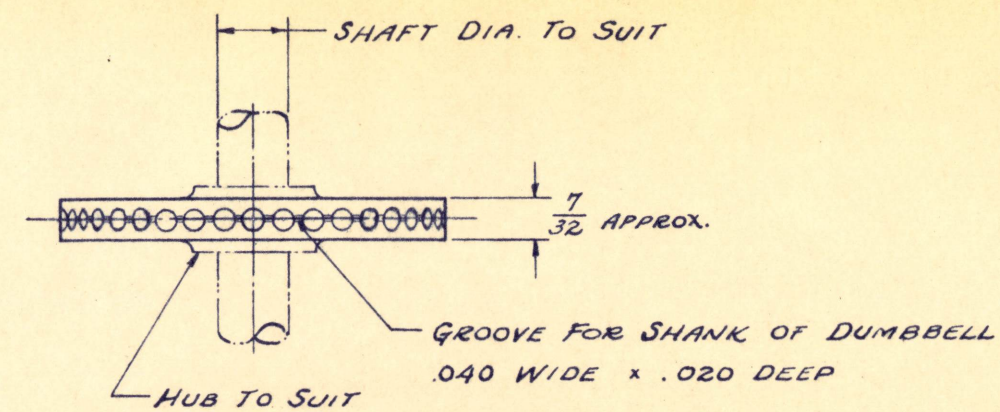
2" DIA. SPROCKET  
26 DEPRESSIONS - .190" DIA. - .095" DEEP  
.237" CENTERS  
FOR NO. 10 UNIFORM CHAIN -  
50-51 BEADS PER FOOT



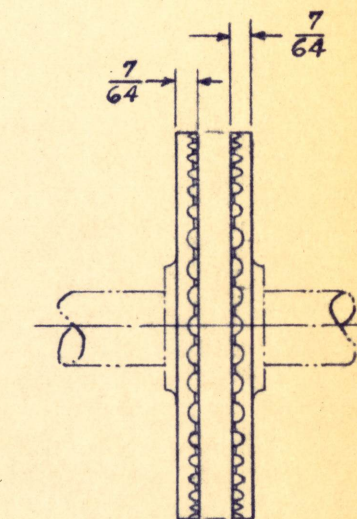
MAY BE DIE CAST  
IN HALVES AND  
RIVETED TOGETHER

TOLERANCES-DECIMALS  $\pm .005$ " FRACTIONS  $\pm .010$ " EXCEPT AS SPECIFIED

REVISIONS	MATERIAL	THE BEAD CHAIN MFG. COMPANY BRIDGEPORT, CONN.	
A- WAS 50 B/F & .240" CTRS. 11-3-52 <i>ABM</i>		PART SPROCKET FOR #10 CHAIN	
	DATE JULY 15, '52	DRAWN BY <i>ABM</i>	S-219
	SCALE FULL	APPROVED <i>Bahr</i>	



2" DIA. SPROCKET  
37 DEPRESSIONS - .128" DIA. - .064" DEEP  
.165" CENTERS  
FOR NO. 6 UNIFORM CHAIN  
72-73 BEADS PER FOOT



MAY BE DIE CAST  
IN HALVES AND  
RIVETED TOGETHER

TOLERANCES-DECIMALS  $\pm .005$ " FRACTIONS  $\pm .010$ " EXCEPT AS SPECIFIED

REVISIONS	MATERIAL	THE BEAD CHAIN MFG. COMPANY BRIDGEPORT, CONN.	
A- WAS 72 B/F WITH .170" CENTERS 9-22-52 <i>ABM</i>		PART SPROCKET FOR #6 CHAIN	
	DATE SEPT. 4, '52	DRAWN BY <i>ABM</i>	S-218
	SCALE FULL	APPROVED	



441-13th Ave. No.

Wis. Rapids, Wis.

Sept 30, 1952.

Carl G. Crane  
833 - Bandera Road,  
San Antonio, Texas.

Gentlemen: -

The South Texas Chamber of Commerce  
have recommended you as people who will  
develop and market ideas. Will you kindly  
inform me what information you will require  
and under what conditions you would be  
willing to consider my ideas.

Sincerely

Mrs. John Krohn.

PROTECT OUR  
KEEP FOREST SWEET  
WITH  
CHLOROMATCH

CHLOROMATCH

My dear Mr. [illegible]

Enclosed

find a copy of the report of the  
Forest Service for the year 1911  
which contains a full description of  
the work of the Service during the  
year and a list of the forests  
under its management.

I am, Sir, very respectfully,  
Your obedient servant,  
[illegible signature]



October 7, 1952

Mrs. John Krohn  
441-15th Avenue North  
Wisconsin Rapids,  
Wisconsin

Dear Mrs. Krohn:

I appreciate your letter of September 30 which inquired as to the development and marketing of your ideas.

My service is largely designed to render technical assistance in the nature of certain researches and creative engineering in assisting the inventor and/or manufacturer with problems connected with their effort. I can also manage the building of models and the test of these. Only in rare instances will I be interested in the development of patented ideas that are being readied for market researches and studies. In the event that I may be of service to you in the above connection I would like to consider your ideas, which of course you will realize is most difficult to do by correspondence.

This morning while visiting with Mr. Dobbins of the Dobbins Metal Products Company he spoke of receiving a note of inquiry from you and asked if I would advise you that his facilities are largely directed to the fabrication of models upon which an inventor is working, and by close cooperation with him to assist in converting his ideas into a finished working model. In the event that Mr. Dobbins and his fine machine shop and able technicians could assist you I feel certain he will be glad to hear from you.

Very truly yours,

CJC/lwm

CARL J. CRANE, M.E.



Bergheim, Texas.  
Sept. 3, 1952.

Col. Carl J. Crane,  
San Antonio, Texas.

Dear Sir:

You will, no doubt, be surprised to get this letter, but then there are surprises every day. Our mutual friend Mr. Luther Crawford of your city, told me to send this material to you, as you were the right man to get it before the right authorities to give the device a trial.

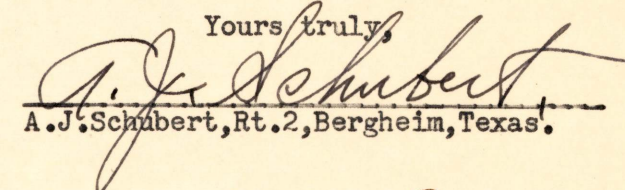
I have invented and patented a controlling device for airplanes, and I am enclosing herewith a copy of the patent granted me. As you can see by checking over the patent papers, I have moved the rudder bar up onto the control column, and eliminated the necessity of using the feet for rudder control.

I know from personal experience that the most difficult thing about learning to fly is coordination between stick and rudder, or between hands and feet, and since this device eliminates this feature, I believe that a good percent of the young men who wash-out in their early flight training, would make topnotch pilots. I say this because we do everything that we do with our hands, that is except walk, and therefore our hands are about 98 percent more responsive to the mind than are the feet, and we learn to do things automatically with our hands, while it requires a direct mental effort to get our feet to do anything other than walk. And from a civilian standpoint, I am sure that older people can learn to fly with very little effort with this device for the same reasons above stated.

I believe that this matter merits a personal discussion and consultation, and go thoroughly into the entire matter, from the merits of the device, to consideration for services rendered. I will be glad to meet you in San Antonio, or have you come out to my home, which is about 40 miles from San Antonio. I have interests in West Texas and in the Rio Grande Valley, and am away from home quite a lot, and therefore it will be necessary to make a definite appointment.

Kindly let me hear from you at your earliest convenience,  
and Oblige,

Yours truly,

  
A.J. Schubert, Rt. 2, Bergheim, Texas.

Rec.  
9-4-52



September 5, 1952

Mr. A.J. Schubert  
Route 2.  
Bergheim, Texas

Dear Mr. Schubert:

Your letter of September 3rd together with the enclosed copy of Letters Patent No. 2418369 has been received. I am glad that our mutual friend Mr. Luther Crawford has kept me in mind and I appreciate his effort and your inquiry.

I am enclosing a folder descriptive of my work which you will note is directed more to the technical and engineering phases of inventive effort than to the placing of patented ideas in the hands of prospective manufacturers and/or consumers. Nevertheless I will be happy to discuss your invention with you to determine if I can render any particular service.

I am usually in my office in the morning until noon and frequently in the afternoon hours and will be glad to meet with you here at your convenience, so please give me a call or drop me a line in order that you can be certain not to make an unnecessary trip.

With kind personal regards to you and Mr. Crawford,  
I am,

Very truly yours,

CJC/lwm

CARL J. CRANE, M.E.



Bergheim, Texas.  
Sept. 26, 1952.

Col. Carl J. Crane,  
San Antonio, Texas.

Dear Col. Crane:

I have your letter of the 5th instant at hand, and contents duly noted. I have been out of the country for some two weeks, which accounts for my not answering your letter sooner.

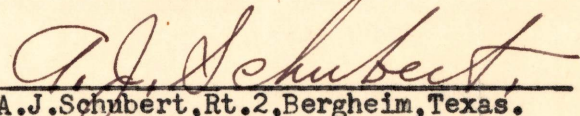
I have had some little experience with the engineering staffs of several of the automobile manufacturing companies, and I have found that they have pretty much of a closed mind to any ideas that did not originate with them, and it would be my guess that this would hold true with the Engineering Staff of the U.S. Air Forces, and therefore I have need of a man whose recommendation will receive recognition by the Engineering Staff of the U.S. Air Forces, and from what Mr. Luther Crawford told me about you, I believe that you have the qualifications needed.

If you want to tackle this job, I will pay you a commission of 25 percent of any royalty deal you may be able to make with a manufacturer, or of the proceeds of an outright sale of the patent, providing that the deal is acceptable to me, and I am not hard to deal with on a reasonable basis.

If you are interested in the foregoing proposition, please advise me accordingly, and I will arrange a meeting with my attorney in Boerne, Texas., and we will have him draw up a contract to protect the interests of everybody concerned in the matter.

With kindest personal regards, I am

Yours truly,

  
A.J. Schubert, Rt. 2, Bergheim, Texas.



September 29, 1952

Mr. A.J. Schubert  
Route 2  
Bergheim, Texas.

Dear Mr. Schubert:

Your letter of September 26 has been received and I have carefully considered your proposals you have made in connection with your issued patent No. 2,418,369.

The comments in your letter are very true in that it is most difficult to interest the agencies who could use your invention. I have a problem of two of this nature myself.

I am concerned with the almost impossible situation that faces you in trying to convert the present control standardization which is imbedded into the conditioned reflexes of almost all pilots. In addition to this much of the aircraft structure and automotive devices connected thereto would impose an additional technical burden of conversion as would be encountered if for instance you had an invention that would require a change in coupling mechanism for railway cars.

Your invention has merit indeed when considered on its intrinsic value. However I would feel it beyond my capacity of time and available effort to engage in the selling program that would be encountered on this project.

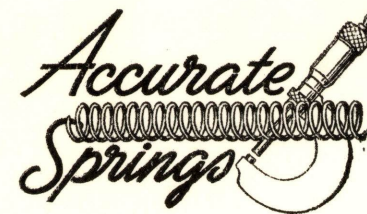
If I can be of any assistance to you on other items that have a shorter range potential please call on me. I return herewith your copy of the patent, and suggest that you stop in for a visit when in San Antonio.

Very truly yours,

CARL J. CRANE, M.E.

CJC/lwm  
Encl: *pat ret.*





**ACCURATE SPRING MFG. CO.**

3811 WEST LAKE STREET, CHICAGO 24, ILL. • VAN BUREN 6-5900

*Manufacturers*  
SPRINGS  
•  
WIRE FORMS  
•  
STAMPINGS

October 15, 1952

Mr. Carl J. Crane, M.E.  
Varsity Village Building  
833 Bandera Road  
San Antonio 1, Texas

Dear Mr. Crane:

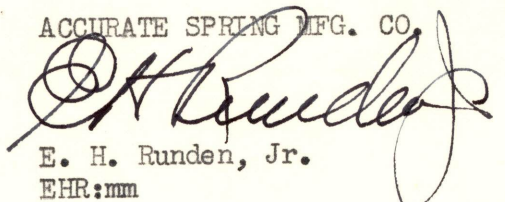
With reference to your letter of October 6th, we are listing the correct address of the Hunter Pressed Steel Company below:

Hunter Pressed Steel Company,  
Spring Division  
Lansdale, Pennsylvania

We sincerely regret our error in this matter, and hope it has not caused you any serious inconvenience.

Yours very truly,

ACCURATE SPRING MFG. CO.

  
E. H. Runden, Jr.  
EHR:mm



20 Oct. 1952

Hunter Pressed Steel Company  
Spring Division  
Lansdale, Pa.

Gentlemen:

In response to a request for information from the Accurate Spring Manufacturing Company relating to a constant load spring which a client has presented, Mr. E. H. Runden, Jr. was kind enough to refer us to your company stating that you could provide us with descriptive literature relating to a device you manufacture called a Negator. We can see many applications for a device of this kind and would appreciate your literature relating to it.

Very truly yours,

CJO/gwc

CARL J. CRANE, M.E.



**HUNTER**  
**SPRING COMPANY**

LANSDALE, PENNSYLVANIA

October 22, 1952

**neg'ator division**

Varsity Village Building  
833 Bandera Road  
San Antonio 1, Texas

Attention: Mr. Carl J. Crane, M.E.

Gentlemen:

Responding to your recent request, we are pleased to enclose our Bulletin 310-A covering the Neg'ator, reprint of the introductory article from "Product Engineering" for July 1949, a reprint from the January 1951 issue of "Machine Design" and the paper covering theory and design of the Neg'ator which was presented at the 1951 Fall Meeting of the American Society of Mechanical Engineers.

This literature illustrates the four principal forms of the Neg'ator and some typical applications selected from the many and varied uses which are developing. The Neg'ator offers constant or controlled force throughout deflections not heretofore obtainable in any elastic member.

It is evident that length alone determines the energy storage capacity of a Neg'ator of given cross section and radius. Force, on the other hand, is a function of width and thickness, the latter determining the radius of the coil. Increase of energy storage capacity by increasing the force results in a proportional increase in size. Maximum space economy is achieved when the Neg'ator is designed to deliver minimum force through the maximum distance possible in the application. Neg'ators have been made in lengths up to 100 feet and in sizes from .0015" x .040" (force .027 lbs.) to .062" x 2½" (force 80 lbs.) and can be produced in any size, limited only by availability of material.

An introductory kit, NC-11, consisting of an assortment of various size Neg'ators, in clamp form, to acquaint you with the new concept of spring members is available at \$3.00. Purchase of this kit is recommended. There is also available a B-motor as shown in Bulletin 310-A at \$10.00.

We offer the services of our engineering staff in the design and application of the Neg'ator to your product. Full requirements of work to be done should be supplied with your request. Drawings, sketches, operating conditions and frequency of operation are necessary considerations for recommendation of design. We await your further inquiry with interest.

Very truly yours,  
HUNTER SPRING COMPANY

*L. B. Glaser* *per L.B.*  
L. B. Glaser, Manager  
Neg'ator Division

LBG:hb  
encls.



ECLIPSE - PIONEER  
DIVISION OF BENDIX AVIATION CORPORATION  
TETERBORO, NEW JERSEY

April 28, 1953

Mr. Carl J. Crane  
Rancho del Camino de la Soledad  
P. O. Box 116  
Helotes, Texas

Re: License Agreement dated Jan. 16, 1936  
Carl J. Crane - Francis G. Nesbitt and  
Bendix Aviation Corporation

Dear Mr. Crane:

We wish to report that under the terms of the subject agreement there were no devices sold by us during the quarter annual period ended March 31, 1953 that were subject to royalty.

Very truly yours,

ECLIPSE PIONEER DIVISION  
BENDIX AVIATION CORPORATION

*Francis H. Thees*  
C. H. Thees  
Agreements Accountant

CHT:ES:ap

cc: Mr. Francis Glenn Nesbit  
One Prospect Avenue  
Garden City, New York

C. Hummel  
S. Harts

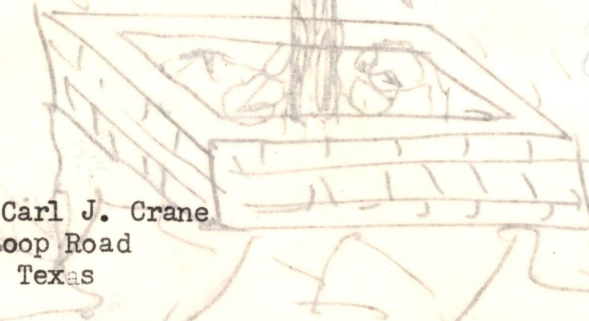


## SOUTHWESTERN BELL TELEPHONE COMPANY

105 AUDITORIUM CIRCLE

SAN ANTONIO, TEXAS

April 23, 1953

TELEPHONE  
BLACKSTONE 5-7481J. Z. PICKENS  
MANAGER

Colonel Carl J. Crane  
Scenic Loop Road  
Helotes, Texas

Dear Colonel Crane:

We have recently verified the excess mileage in your exchange and find we have not been charging you the proper mileage on your telephone Helotes 53366. As a result of this check, it will be necessary that we add 2/4 mile at an increase of \$1.00 plus tax per month.

The increase will be reflected on your April 26, 1953 bill. Also you will be back-billed from the time service was connected and this also will be shown on your April 26, 1953 bill.

We regret this error and if you have any question concerning your account, please call our business office by dialing operator and asking for the business office.

Yours very truly,

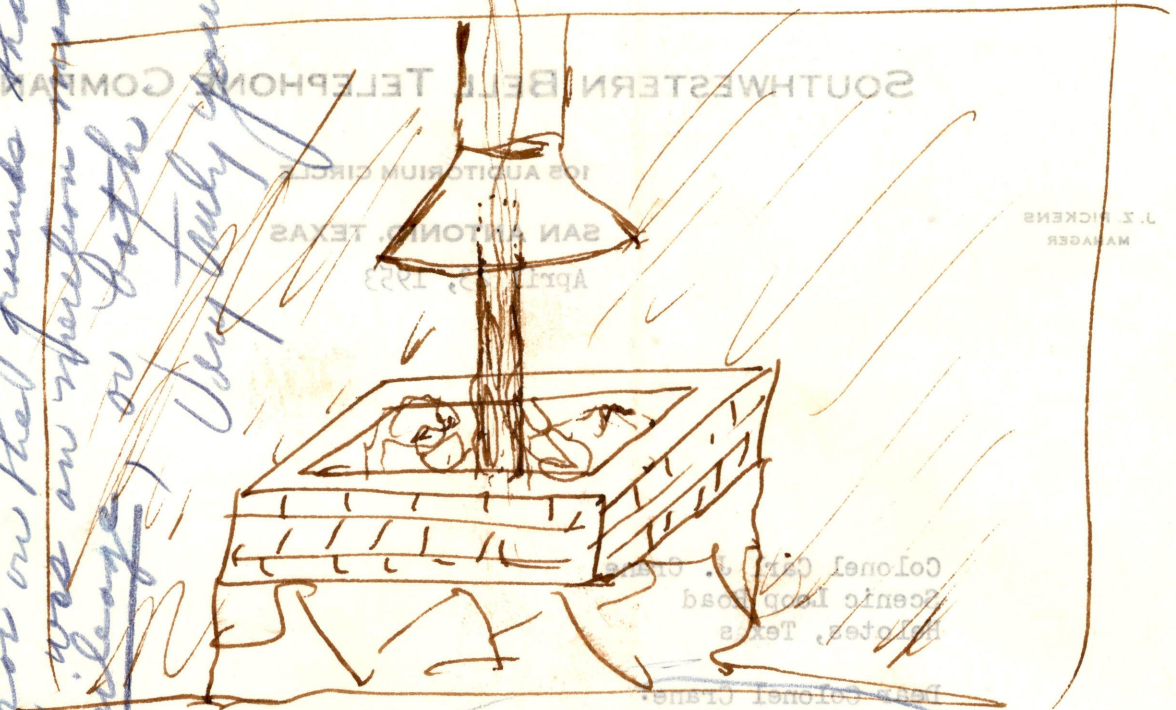
*J. Z. Pickens*  
Manager

Colonel Carl J. Crane  
Rt. 116  
Helotes, Texas



118  
60  
58

charged for the purchase  
of making long distance  
calls to San Antonio and  
other points is already included  
so (1) I may be charged the  
service and (2) let you understand  
the error on that ground that  
never was an inspection made  
of mileage on both  
Very truly yours



We have recently verified the excess mileage  
your exchange and find we have not been charging you the  
proper mileage on your telephone bills. It will be necessary to add 2.10 to the  
of this check, it will be necessary to add 2.10 to the  
an increase of \$1.00 plus tax per month.  
Dear Mr. Hickens:  
I have your letter dated  
April 23, 1953 relating to an additional  
charge for mileage on my Helotes  
telephone number 53366.  
You state that I have a you  
have made an error in which some 3/4  
mile of service must be paid by me in  
future months and retroactively on  
service rendered.  
Just where is this 3/4 mile  
measured from and to and why  
did you not define <sup>mileage</sup> in your  
original contract? The telephone is  
some 936 feet from the pole line which  
is less than 1/4 mile. The rate now being



May 2, 1953

Mr. J.Z. Pickens  
Southwestern Bell Telephone Company  
105 Auditorium Circle  
San Antonio, Texas

Dear Mr. Pickens:

I have your letter dated April 23, 1953 relating to an additional charge for mileage on my Helotes telephone number, 5-3366.

You state that you have made an error in which some 2/4 mile of service must be paid by me in future months and retroactively on service rendered.

Just where is this 2/4 mile measured from and to, and why did you not define mileage in your original contract? The telephone is some 936 feet from the pole line which is less than 1/4 mile. The rate now being charged for the privilege of making long distance calls to San Antonio and other points is already exorbitant, so (1) I may relinquish the service and (2) let you underwrite the error on the grounds that never was any mention made of mileage, or both.

Very truly yours,

CARL J. CRANE, M.E.