

F-P-8  
Ref# 85281  
Ref#

**UNIVERSITY OF  
WYOMING**

American Heritage Center

P.O. Box 3924  
Laramie, Wyoming 82071-3924  
(307) 766-4114

February 7, 1992

Mr. Mark Gob  
Montana Department of Fish,  
Wildlife, and Parks  
Yellowstone River Trout Hatchery  
Big Timber, MT 59011

Dear Mr. Gob:

Thank you for your request for information concerning planting fish by air. As I mentioned to you on the telephone, I did find a folder about that topic in the H. H. Henrickson collection, #2605, Box 2, "Fish Planting by Air."

I copied the correspondence and a number of newspaper articles from the file as well as a number of photographs (front and back), all of which are enclosed. If you would like a print of any of the photos just let me know and we will make them up for you. I have enclosed a brochure which provides the price lists for making black and white prints.

The cost of the copying came to \$6.20 plus \$5.00 for postage and handling. An invoice is enclosed.

I hope the information proves helpful. If we can be of any other assistance please let us know.

Sincerely,



Rick Ewig  
Manager/Reference Services

RE/mm  
Enclosures

**Montana Department  
of  
Fish, Wildlife & Parks**



2300 Lake Elmo Drive  
Billings, MT 59105  
January 13, 1992

Mark Gaub  
Yellowstone River Trout Hatchery  
P. O. Box 508  
Big Timber, MT 59011

Dear Mark,

Carol Frasier was in Billings last week helping us with our regional library. She mentioned that you were looking for historical information on aerial fish planting for your Montana Outdoors article. I'm sending some information from our files - for what its worth.

When I met Bob Henrickson in 1986 he had a longstanding chip on his shoulder toward the Department. He told me that many years ago a Department fish biologist had publicly humiliated his father at a Billings Rod and Gun Club meeting. The biologist apparently was bad-mouthing the individuals responsible for planting brook trout in the Beartooth high country. I gave him a copy of a letter from the Superintendent of State Fisheries to his father in 1940 which clearly shows that stocking brook trout at the time was done with full Department approval.

In his report Herman Henrickson mentions a Charles Beldon taking motion pictures of the Stearman biplane doing the fish stocking. That has to be some wild footage!! The University of Wyoming might have a still photo of it you could use.

Good luck,

*Mike*

Mike Vaughn

R. L. (Bob) Henrickson  
2116 - 24th St. West  
P. O. Box 23395  
Billings, MT 59104

February 6, 1992

Mr. Michael W. Vaughn  
Fisheries Fieldworker  
Montana Department of  
Fish, Wildlife & Parks  
2300 Lake Elmo Drive  
Billings, MT 59105

Dear Mr. Vaughn:

My delay in responding to your recent call is due to the fact, as my wife probably indicated, that we've sold our home (23 yrs.!) and are in the moving process. After the 14th of this month the above will be our address and our phone will be 652-4021.

Many segments of the press carried stories about the fish planting by air. In addition to the Monitor I know Shell Progress had a story; this was the in-house magazine for Shell Oil Company. Possibly I mentioned to you that one or more books carried information. One of the hardbacks was, I believe, by a Missoula writer; possibly in connection with the Forestry School. In any event some librarian should be able to research for this data.

Attached are copies I've made for you of the only material that I have in my file. You will note one of the pieces is the receipt for dad's stuff at the University of Wyoming. I'm at a loss to understand why they were not able to run that down for you. If your future inquiries to them are not productive please let me know.

You will find me eager to assist you in producing all relevant facts in connection with this important bit of Montana history. This is in spite of the hurt and indignation that is re-lived when the unbelievable event at the Rod and Gun Club those many years ago is recalled. It is not possible for me to have any respect for the State Fish & Game, and my effort and concern is for your personal interests.

Sincerely yours,



R. L. Henrickson

PS - Please research; Charles Belden  
Pitchfork Ranch  
Wyo.

A famous photographer who recorded the event



Robert L. Henrickson

Chartered Life Underwriter

Phone  
245-5060

November 17, 1986

Mr. Michael W. Vaughn  
Fisheries Fieldworker  
Montana Department of  
Fish, Wildlife & Parks  
1125 Lake Elmo Drive  
Billings, MT 59105

Dear Mr. Vaughn:

With special thanks I acknowledge your letter of November 9th and the attendant materials. This will be placed in a file I keep of my dad's activities and interests.

According to the information that I have, and information which appeared in Christian Science Monitor and other books and publications, the first successful fish planting from the air (in the world) was the 1940 subject event.

By the way, all of dad's log books, still and movie films and other pertinent materials are on permanent loan with the University of Wyoming Library. Perhaps this information may be important to a future researcher.

Next year I hope to comply with the Department's screening requirements and re-stock our two acre pond on the West Rosebud. At this time I favor the Cutthroat as the choice.

Thank you again, Michael, for your assistance and consideration.

Sincerely yours,

R. L. Henrickson

*Retired*

*Home Phone*

*252-2667*

*Call back the week  
after AFS*

**Montana Department  
of  
Fish, Wildlife & Parks**



1125 Lake Elmo Drive  
Billings, MT 59105  
November 9, 1986

Mr. R. L. Henrickson  
1401 - 15th Street West  
Billings, MT 59102

Dear Mr. Henrickson:

After our talk a number of months ago, I found a couple of documents concerning your father in our files. I thought you might be interested in them. The letter from the superintendent of state fisheries in 1940 clearly shows that the stocking of brook trout in the Beartooth high mountain lakes was done with the full support of the Fish and Game Department. I have also found reference to the fact that brook trout were stocked in some of these waters in the 1920s by members of the Red Lodge Rod and Gun Club.

If we had to do it all over again, few of those lakes would be stocked with brook trout. But to criticize with the benefit of hindsight is all too easy. No generation can claim to predict the future with unfailing accuracy.

The individuals who pioneered fish stocking and management in the first half of this century should be credited for laying the groundwork which has resulted in the popularity and diversity of our present sport fisheries. Here's hoping that Montana's fisheries advocates remain strong and can continue to protect and enhance Montana's fish populations.

Sincerely,

Michael W. Vaughn  
Fisheries Fieldworker

MWV eb

Enclosures



THE UNIVERSITY OF WYOMING

TRANSPORTATION HISTORY FOUNDATION

THE LIBRARY

BOX 3334

LARAMIE, WYOMING 82070

December 11, 1967

THE H. H. HENRICKSON COLLECTION

RECEIPT for gift received of Mr. R. L. Henrickson:

This collection consists of  
photographs, file folders,  
scrapbooks, correspondence,  
books, and miscellaneous  
items pertaining in part to  
the aviation and business  
career of H. H. Henrickson.  
This material ON LOAN.

BOOK: The Wild Elk Conservation Club, An organization devoted  
to the preservation and proper breeding of native American  
wild elk.

FILE FOLDERS:

- (a). Airplanes A/so Waco Aircraft Company.
- (b). Billings Air Show.
- (c). Billings Air Show, 1939, Talent proposals, Acceptance and verifications.
- (d). Billings Air Show, 1939, Correspondence and Invitations.

RECEIPT: Continued

FILE FOLDERS: Continued

- (e). Fish Planting by Air.
- (f). Montana Pilots' Association.
- (g). Permission to Conduct a Class I Air Meet.
- (h). Reports-Monthly Oil Inventory-H. H. Henrickson and Sons. 1941 - 1950.

PHOTOGRAPHS:

Over 320 unidentified photographs depicting hunting scenes, wildlife and scenery, aerial views, aircraft, group photographs of aviation officials, gasoline stations and oil companies, friends and relatives of Mr. H. H. Henrickson. Also included are over 30 unidentified negatives.

SCRAPBOOKS:

Three scrapbooks containing photographs, newspapers and newspaper clippings, notices, invitations, cards, and correspondence.

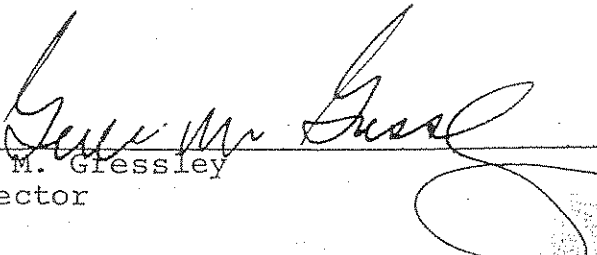
MISCELLANEOUS ITEMS:

- (1). JOURNALS: Two journals with computations for capital stock, machinery and equipment.
- (2). LOG BOOKS: Eleven log books-Pilot, Aircraft, Engine, and Pilot Flight.

POCKET DIARIES; Given by Stanavo, Security Trust and Savings Bank of Billings Montana, Fenton Agency, and the 1st National Bank in Billings. (8 total).

POSTER: "The Will Rogers Memorial Fund"

(Signed)

  
Gene M. Gressley  
Director

# Red Lodge Rod and Gun Club

(INCORPORATED)

Red Lodge, Montana

January 29, 1939

Mr. Herman Hennickson  
 Shell Oil Co.  
 Billings, Montana.

Dear Sir,

Our Mr. Leo Sjozen, has received me to you in the matter of fish planting in the Cook City Area, stating that you were the man cooperating with him in that area in 1938.

Will you please figure out the number of fish needed for that area this year and send me an itemized list of waters to be stocked and number of fish for same, also proper species if any.

If you will do this at once it will aid a great deal because we must submit our needs to the State Dept immediately.

Yours truly,

W. H. Curran

5

5

5

Bureau

Bureau

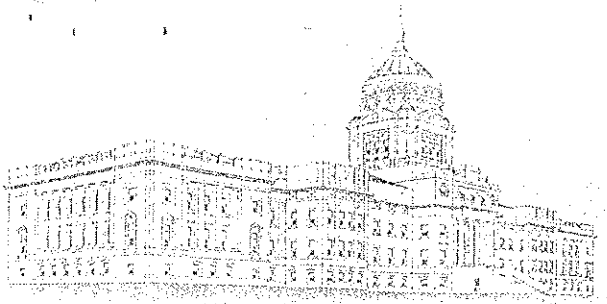
Bureau

Bureau

Bureau

PRIOR TO QUOTATION OR PUBLICATION





# STATE OF MONTANA Fish and Game Commission

## MEMBERS

B. L. PRICE, CHAIRMAN, LAUREL

HARRY E. LAY, LEWISTOWN

NICK DONDELINGER, ANACONDA

P. G. GUTENSOHN, WHITEFISH

A. C. BAUMGARTNER, GREAT FALLS

J. A. WEAVER, STATE FISH AND GAME WARDEN, HELENA

J. W. CARNEY, CHIEF DEPUTY GAME WARDEN, HELENA

JOHN W. SCHOFIELD, SUPERINTENDENT STATE FISHERIES, HELENA

J. F. HENDRICKS, SUPERINTENDENT STATE GAME FARM, WARM SPRINGS

Helena, Montana  
September 27, 1938.

Mr. Herman Hendrickson  
c/o Shell Gas Company  
Billings, Montana

Dear Herman:

As per our conversation in Cooke City regarding experiment planting fish in Elmo Lake from an aeroplane. If it meets with your approval and is convenient for you to do so I would like to make said experiment the morning of October 12, 1938.

Will you kindly advise me whether or not Wednesday, October 12th at 10 A. M. will meet with your approval, and if such meets with your approval we will go ahead and make our plans accordingly.

With kind personal regards and best wishes.

Very truly yours,

*John W. Schofield*  
JOHN W. SCHOFIELD  
SUPT. STATE FISHERIES

JWS:AC

CC - B. L. Price, Chairman Fish & Game Commission  
Charles L. Fuqua  
Forest Keller

10/17/38

Mr. H. H. Hendrickson  
Billings, Mont.


Dear Herm:

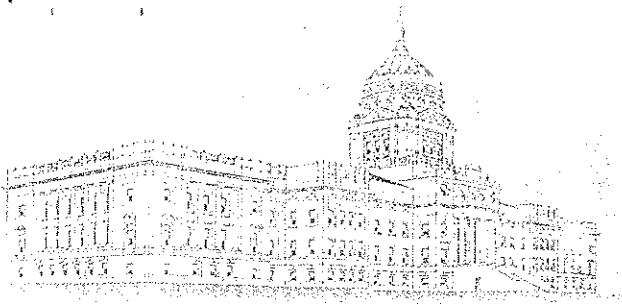
Thanks for your letter and the publicity on your fish planting. Hope you will send me a copy of the paper with the complete story. And thanks for your thoughtfulness in getting Shell in there; it all helps the lineage, my boy.

From what I can find out about the planting in Lake Washington, they dropped the fingerlings in five-gallon cans with a gunny-sack parachute attached to break the fall. They had a hole in the can, of course, for them to escape through after they lit, and they had a board attached to each can to assure its turning over after it hit the water, so that the fish would get out. Don't know how successful it was, but understand that it was some private enterprise that was doing the stocking, and they didn't get permission from the State Fish & Game Dept. and the state was pretty sore about the whole thing.

Wish I could have been with you and Howard on your hunting trip. Hope you had a lot of luck.

Best regards,

  
J. A. KEYES



# STATE OF MONTANA FISH AND GAME COMMISSION

## MEMBERS

B. L. PRICE, CHAIRMAN, LAUREL

HARRY E. LAY, LEWISTOWN

NICK DONDELINGER, ANACONDA

P. O. GUTENSOHN, WHITEFISH

A. C. BAUMGARTNER, GREAT FALLS

J. A. WEAVER, STATE FISH AND GAME WARDEN, HELENA

J. W. CARNEY, CHIEF DEPUTY GAME WARDEN, HELENA

JOHN W. SCHOFIELD, SUPERINTENDENT STATE FISHERIES, HELENA

J. P. HENDRICKS, SUPERINTENDENT STATE GAME FARM, WARM SPRINGS

Helena, Montana  
October 12, 1938.

Mr. Herman Hendrickson, Agent  
Shell Oil Company  
Billings, Montana

Dear Herman:

This is the first opportunity I have had to write and thank you for the wonderful cooperation which you extended this Department and myself in planting fish from an aeroplane.

We are indeed greatly indebted to you for your wonderful cooperation and sportsmanship in making it possible for us to carry out these tests, and I feel that much information and good was obtained by this experiment.

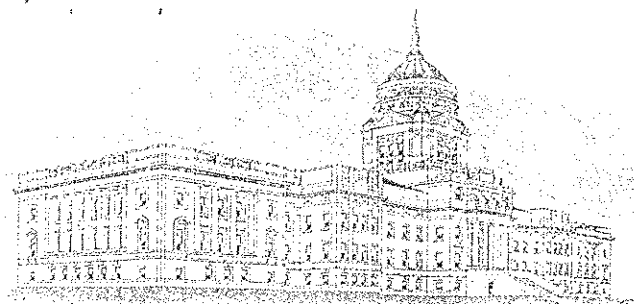
I sincerely trust that you were fortunate enough to find the diamond setting out of your ring, in the event you did not it certainly would be a stroke of mighty tough luck.

Again thanking you for the kind cooperation and assistance rendered us, and with kind personal regards and best wishes for yourself and family, I am

Sincerely yours,

*John W. Schofield*  
JOHN W. SCHOFIELD  
SUPT. STATE FISHERIES

JWS:AC



J. A. WEAVER, STATE FISH AND GAME WARDEN, HELENA  
J. W. CARNEY, CHIEF DEPUTY GAME WARDEN, HELENA  
JOHN W. SCHOFIELD, SUPERINTENDENT STATE FISHERIES, HELENA  
J. F. HENDRICKS, SUPERINTENDENT STATE GAME FARM, WARM SPRINGS

## STATE OF MONTANA FISH AND GAME COMMISSION

### MEMBERS

B. L. PRICE, CHAIRMAN, LAUREL  
HARRY E. LAY, LEWISTOWN  
NICK BONDELINGER, ANAHEIM  
F. C. GUTENSOHN, WHITEFISH  
A. C. BAUMGARTNER, GREAT FALLS

Helena, Montana  
October 9, 1939.

Mr. H. H. Hendrickson  
Shell Gasoline Agent  
P. O. Box 37  
Billings, Montana

Dear Herman:

After giving the tentative line up consideration for the aeroplane fish distribution the following fish will be delivered at Billings:

4,900 Native trout will be added to the 100 California Golden trout in order to make trip No. 1 a 5,000 fish plant.

4,600 Rainbow trout will be added to the 400 Albino Eastern Brook trout in order to make trip No. 2 a 5,000 fish plant.

Trip No. 3 will consist of 5,000 Rainbow trout.

I trust that the above line up will meet with your approval, as I am confident that by increasing the amount on each of the three trips that it will make same a well worth while distribution.

With kind personal regards and best wishes.

Very truly yours,

*John W. Schofield*  
JOHN W. SCHOFIELD  
SUPT. STATE FISHERIES

JWS:AC



The Pitchfork  
Ranch

PITCHFORK - WYOMING

October 15, 1939.

Mr. Herman Hendrickson,  
Shell Oil Company,  
Billings, Montana.

Dear Herman:

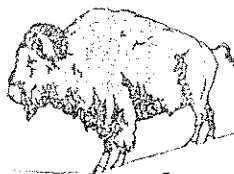
I am sending to you today by "special messenger" some copies of the pictures that we made the other day. I think the pictures turned out fairly well, and I believe that we will be able to get a good story out of them. These pictures have not been retouched and I am just rushing them to you to give you some idea of the results. I will send additional prints in a few days. I will also send you a set of toned prints on dull finished paper that will be suitable for arranging on a board for window display. These will be much better than the regular glossy prints.

In thinking over the possibility for distributing these pictures, it occurs to me that Life Magazine might be interested, and of course they would want exclusive story rights so it seems to me that the best bet as a first trial would be this magazine. If they do accept the story it would certainly be a swell break, for you would get a maximum amount of publicity from this source. Therefore, before we make any distribution on the pictures I will shoot a set of them to Life and will let you know just as soon as I hear from them.

With kindest regards, I am

In haste

PHOTO BY PERMISSION OF PUBLICATION.



The Pitchfork  
Ranch

PITCHFORK - WYOMING

October 21, 1939.

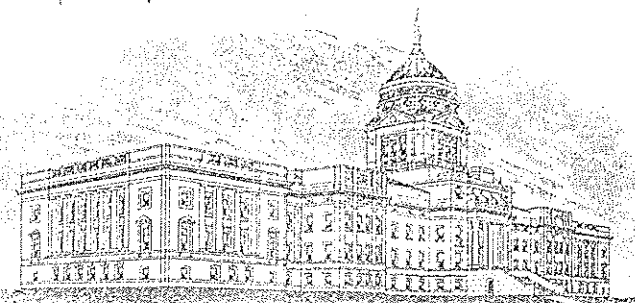
Dear Herman:

I am enclosing herewith some toned pictures of our "flying fish" expedition which I thought you might like to mount on a large board and use for window display. I would have someone make suitable captions under each picture. I would also suggest the possibility of sending the mounted pictures down to Casper for display during the Dude Ranchers' Convention. Such a display might fit in with one of the arilines and could be used by them for a little publicity. Bert Cummings is going down and it might be a good scheme to get in touch with him in this connection. There will also be some of the members of the Montana Game Commissions at the Convention and they might be very glad to have this display.

I am getting these pictures to you in a rush so I do not have time to write the captions, but of course you can probably do this yourself.

With kindest regards, I am

Sincerely yours,



## STATE OF MONTANA Fish and Game Commission

### MEMBERS

B. L. PRICE, CHAIRMAN, LAUREL

HARRY E. LAY, LEWISTOWN

NICK CONDELINGER, ANACONDA

P. G. GUTENSOHN, WHITEFISH

A. C. BAUMGARTNER, GREAT FALLS

J. A. WEAVER, STATE FISH AND GAME WARDEN, HELENA

J. W. CARNEY, CHIEF DEPUTY GAME WARDEN, HELENA

JOHN W. SCHOFIELD, SUPERINTENDENT STATE FISHERIES, HELENA

J. F. HENDRICKS, SUPERINTENDENT STATE GAME FARM, WARM SPRINGS

Helena, Montana  
November 1, 1939.

Mr. Herman H. Menrickson  
Shell Oil Company Dealer  
Billings, Montana

Dear Herman:

Wish to acknowledge receipt of your two reports made on the 1938-1939 aeroplane fish planting. I greatly appreciate your courtesy in sending same to me, and wish to advise that it was very nicely written and covered the subject very thoroughly.

I sincerely hope that the Billings Rod and Gun Club and yourself are as pleased over these experiments as I am, and both the Club and yourself deserves a great deal of thanks for the cooperation and assistance which made same possible.

With kind personal regards and best wishes, and hoping to contact you in Billings in the very near future.

Very truly yours,

*John W. Schofield*  
JOHN W. SCHOFIELD

SUPT. STATE FISHERIES

JWS:AC

MEMORANDUM

12/5/39

Mr. Hendrickson:-

Returning herewith  
your two reports of which we  
have made copies for A.F. and  
ourselves. Have forwarded whole  
thing to Shell Progress. If they  
will give it enough space etc

• SHELL TOURING SERVICE •

MEMORANDUM

it should make a swell article.  
We have made it distinctly  
understood that pictures are to  
be returned to you. Thanks a  
million for your cooperation.

Ed Waller

• SHELL TOURING SERVICE •





## The Pitchfork Ranch

PITCHFORK - WYOMING

November 15, 1939.

Mr. Herman Hendrickson,  
Shell Oil Company,  
Billings, Montana.

Dear Herman:

I am enclosing herewith a few kodachrom shots that I made at the time of our aerial fish planting jaunt. Some of them came out pretty well, and I thought you might like to have them.

I have been expecting to hear from the film that I sent to Paramount, and the stills that I sent to Life Magazine, but neither of them have either accepted or refused our story so I can't give you any report on it as yet. You might be interested in knowing, however, that the Detroit News accepted a story on it for their Roto section, and I will send you a copy of it when it appears. I think that the San Francisco Chronicle will also use some of the pictures.

When I was in Casper, I met Mr. Ferriol, Superintendent of the Beartooth National Forest, and I gave him a set of the pictures. Just as soon as I can get some more prints made up I will send you another set.

I am not going to send out any magazine stories on the fish planting until I hear from Life, as I do not want to get into any conflict on it. I am wondering if the Billings Gazette ever used a Sunday feature story on it.

Some day when the spirit moves, I would like to have you hop down here again and try out the Pitchfork Airport on which we have done quite a little levelling since you were here.

With kindest regards and hoping to see you before long,  
I am

Sincerely yours,



The Pitchfork  
Ranch

PITCHFORK - WYOMING

February 14, 1940.

Mr. Herman H. Hendrickson,  
Shell Oil Company,  
Billings, Montana.

Dear Herman:

I am enclosing herewith some more prints of our fish planting expedition, as I thought you might like to give some to the Game Commission and also have some for yourself. I had thought of sending some to the Montana Game Commission but I thought that you might rather have these come from you.

I was in Billings the other night and I was going to look you up, but it just seemed to be one of those things that I couldn't get around to doing.

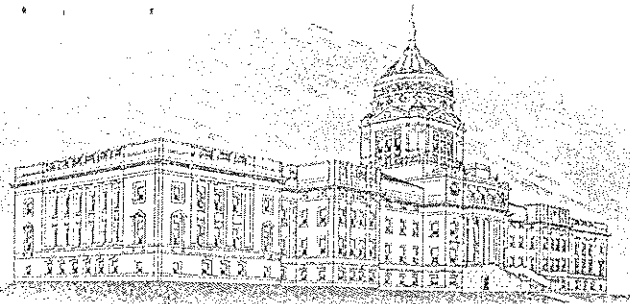
The motion picture film that we made was finally returned from Paramount News, as they seemed to think that there were too many other things of national importance to warrant the use of it. However, I have several ideas for its use and when I go East in a short time I will take it with me and I hope that I may be able to get a release on it. I will keep you informed as to just what I am able to do with it.

Life Magazine are still holding the set of still pictures with a view to use them in the Spring. Several newspaper Photo sections have taken them, but I do not know of any outside of the Detroit News that have actually been published as yet. I presume that you saw the full page picture in the January issue of Sportsman Pilot that I made of the Stearman from the cabin of your Waco.

If you want any more prints let me know and I will be glad to make some up for you. I am wondering if Shell magazine have ever used the fish planting story.

Hoping to see you again before long, I am

Sincerely yours,



J. A. WEAVER, STATE FISH AND GAME WARDEN, HELENA  
J. W. CARNEY, CHIEF DEPUTY GAME WARDEN, HELENA  
JOHN W. SCHOFIELD, SUPERINTENDENT STATE FISHERIES, HELENA  
J. F. HENDRICKS, SUPERINTENDENT STATE GAME FARM, WARM SPRINGS

## STATE OF MONTANA FISH AND GAME COMMISSION

### MEMBERS

B. L. PRICE, CHAIRMAN, LAUREL  
HARRY E. LAY, LEWISTOWN      NICK DONDELINGER, ANACONDA  
P. G. GUTENSOHN, WHITEFISH      A. C. BAUMGARTNER, GREAT FALLS

Helena, Montana  
February 26, 1940.

Mr. H. H. Henrickson, Agent  
Shell Oil Company  
3505 1st Avenue, South  
Billings, Montana

My Dear Herman:

Receipt is acknowledged of your kind letter dated February 23rd, with inclosure of the wonderful pictures taken from an aeroplane.

I wish to assure you that I more than appreciate the wonderful cooperation extended this Department and myself by Mr. Beldon, the Billings Rod and Gun Club, and especially, yours truly, Herman H. All of this cooperation has been through your own efforts and hard work, and we truly greatly appreciate your attitude and friendship towards this Department.

We are inclosing herewith forty cents in stamps to repay you for the postage on said pictures.

I hope that it will be possible for me to be in Billings during the first part of March, and I wish to assure you that my first business upon my arrival there will be to contact you.

With kind personal regards and best wishes, and again thanking you for all of your wonderful cooperation and friendship.

Very sincerely yours,

*John W. Schofield*  
JOHN W. SCHOFIELD  
SUPT. STATE FISHERIES

J  
W  
S  
:  
A  
C  
Incl.



The Pitchfork  
Ranch

PITCHFORK - MONTANA

March 4, 1940.

Mr. Herman Hendrickson,  
Shell Oil Company,  
Billings, Montana.

Dear Herman:

Just a line to let you know that I will be going through Billings, Thursday night on my way East, and I hope that I may get a glimpse of you. I will be leaving on trip 4 at 10:45 on Northwest.

You might be interested in knowing that Sports Afield Magazine will publish our aerial fish planting story in their May issue which is out April 15th.

Hoping to see you on Thursday, I am

Sincerely yours,

H. H. HENRICKSON  
*Shell Oil Company, Incorporated*

Selling Agent  
3505 1st AVE. SOUTH  
BILLINGS, MONTANA

8/6/40

John Schofield

Helena Mont.

Freind Johnny:-

Sorry I wasnt at Cooke when you were thru, Come up some time and stay a few days.

We havent planted any fish up there this year yet I find it is a little difficult to get the help, and also some of the lakes Im afraid to over stock, fishing has been pretty good this year, the last two years plantings have given good results, I really think what we need in some of our lakes up there is some food planted, We had a lake Star lake which was planted eight years ago and up till last year were only seven inches long and then all head, last year Carl Benson brought up several cans of animal life or bugs for some of the lakes, he put two cans in this Star lake , I wish you could see the results, it is almost unbelievable, I caught some of these fish, while they are not so long they are fat as can be, I really I think it would pay to do a little more of this kind of work, Well dont forget to stop in at Cooke and see us if you go thru again,

Yours,

*Herman*

Helena, Montana  
August 10, 1940

Mr. Herman Hendrickson  
3505 First Avenue South  
Billings, Montana

Dear Herman:

Receipt is acknowledged of your letter dated  
August 6th.

I was very sorry to learn to date that it had  
not been possible for you to distribute the eastern  
brook trout for the lakes in the Cooke City vicinity.  
No doubt by this time you have been able to obtain  
sufficient help in order to carry out this program,  
as we would like very much to have this species planted  
not later than August 25th.

I hope to be in Billings August 13th and at that  
time would like very much to contact you and talk over  
the stocking policy for the Cooke City area.

With kind personal regards and best wishes.

Very truly yours,

JWS:W

JOHN W. SCHOFIELD  
SUPT. STATE FISHERIES

UNITED STATES OF AMERICA  
Department of Commerce  
Bureau of Air Commerce  
Washington

DISTRICT No. 7  
Certificate No. 16  
Date issued 10-11-38  
Expires 10-12-38

ld in Jai

OF NON-APPLICATION

PLANT FISH  
FROM PLANE

Experiment at Lake  
Elmo Is Said  
Successful.

Two thousand Rainbow and Native fingerling trout were planted by airplane in Lake Elmo, northeast of Billings, Wednesday morning in an experiment conducted by the state fish and game department.

J. W. Schofield of Helena, superintendent of state fisheries, had charge of the experiment and pronounced it as successful after an inspection from a boat of the fingerlings dropped in the water from heights ranging between 100 and 400 feet.

The experiment was conducted on the local lake in an effort to find a faster and less expensive way of planting fish in some of the out-of-the-way mountain lakes in this area.

Piloting the plane which carried the fish aloft for the experiment was Herman H. Henrickson, local Shell Oil company agent. Forest Keller, superintendent of the fish hatchery at Big Timber, directed the planting from the air and Dick Logan, manager of the local airport, dumped the trout from the plane into the lake.

B. L. Price of Laurel, chairman of the state fish and game commission; Art Trenerry, secretary of the Billings Rod and Gun club, and Charles Fuqua, superintendent of the fish hatchery at Bozeman, witnessed the aerial planting and all believed that the method is practical for mountain planting work.

JUSTICE CANDIDATE

CE:

application is hereby made by Herman H. Henrickson  
Name

Billings Montana 43 Native  
City State Age Citizenship

application of the Pertinent Air Traffic Rules, which would  
hibit the following operation, which, public safety being  
ary to the sound fostering and promotion of aeronautics.

ION (In detail) Dropping fish fry from airplane into lake  
e mile northeast of Billings Airport at altitudes of from  
behalf of the Montana State fisherys as an experiment to  
Results which may be expected from planting fry from an airplane

ngs Airport to described lake

hours beginning 10/12/38 and ending  
ays, weeks or months Date  
between the hours of 10 AM to 12 noon

be applicable only for the purposes and over the areas above  
ified and only to the following described aircraft:

Bomber Owners Name Address  
17732 Herman H. Henrickson Billings Montana

wing pilots:

Address Rating & Number  
Billings Montana Commercial 2S 14060

The undersigned applicant accepts full responsibility for the strict observance of the terms of the Certificate of Non-Application, if granted, and understands such certificate is strictly limited to the above described operations, areas, time, duration period, aircraft and pilots.

Herman H. Henrickson  
Applicant's Signature

\*\*\*\*\* CERTIFICATE OF NON-APPLICATION \*\*\*\*\*

The above application having been considered, and its proposals and facts investigated; It being believed that the Public Safety will be protected and the sound fostering and promotion of aeronautics will be furthered thereby; Now, therefore, as provided

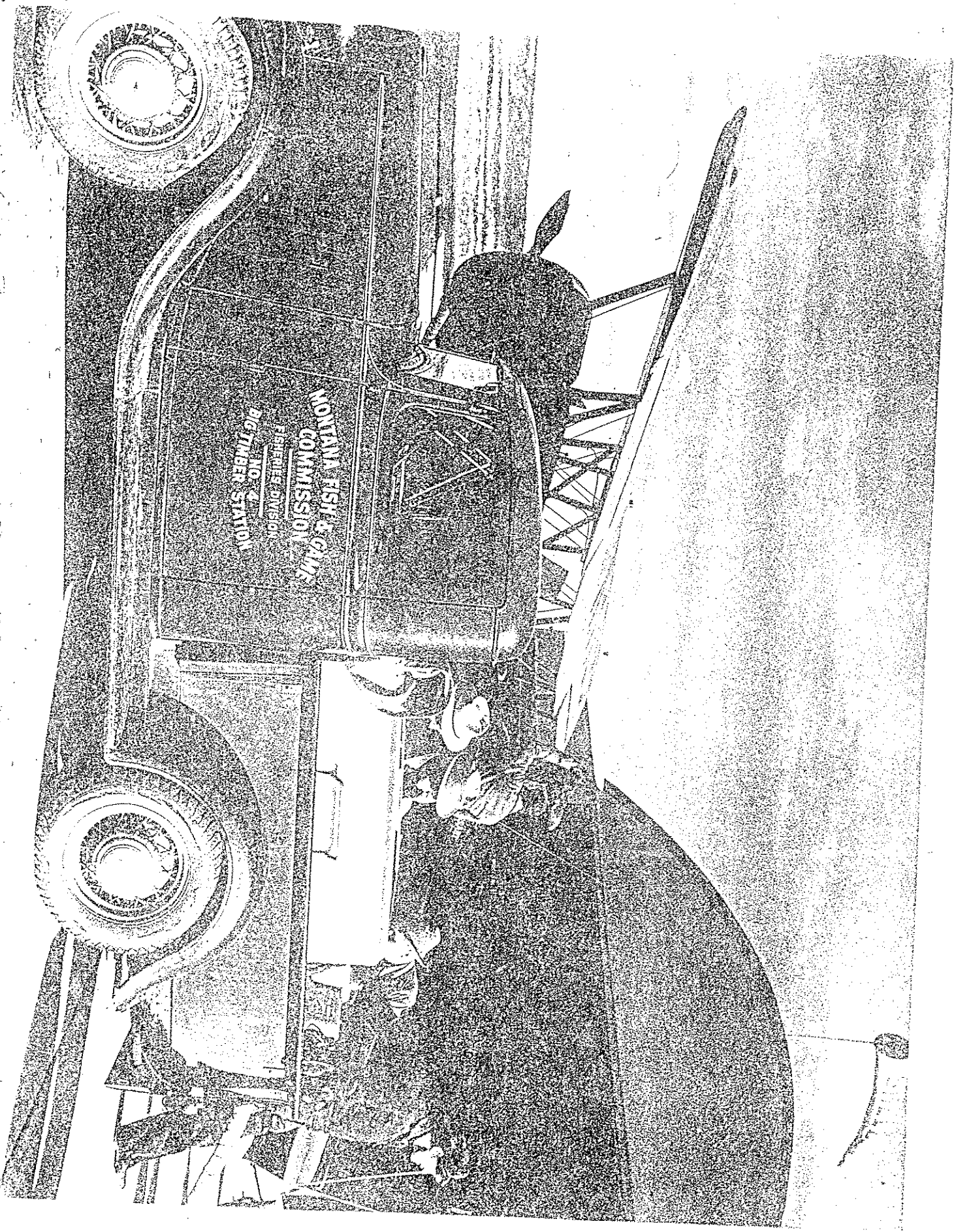




Return to W.H. Henshaw  
Billings Mont.

Photograph Copyright by  
CHARLES J. BELDEN  
Z  
T RANCH  
PITCHFORK, WYOMING

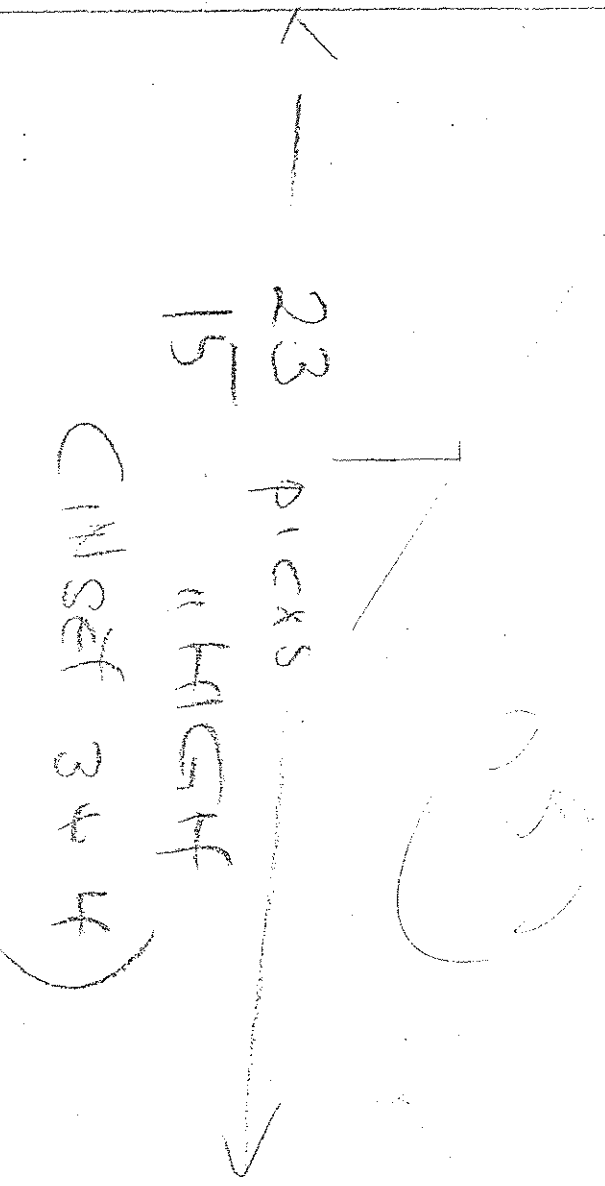
X



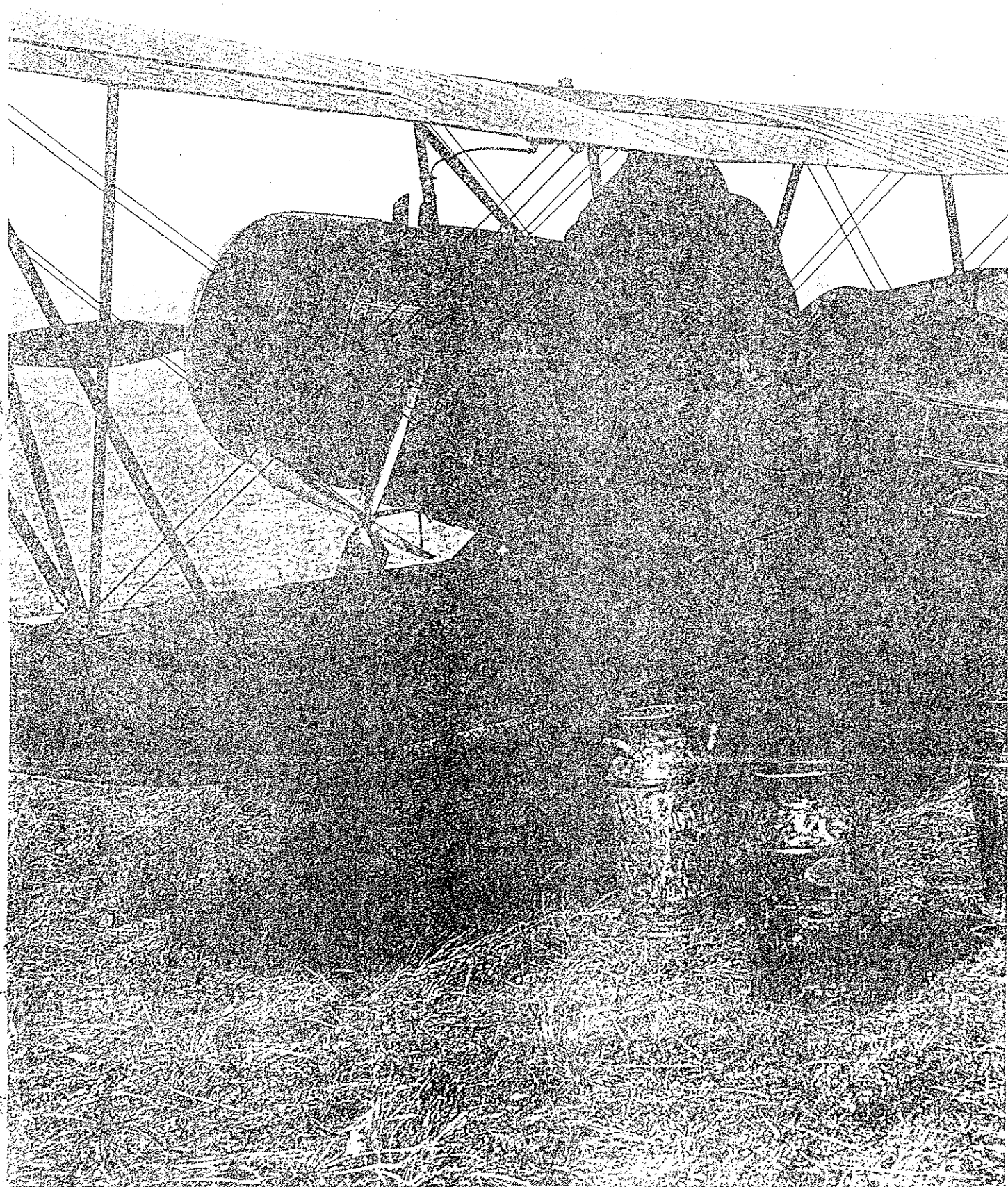
Highway 7, Anderson, N.D.

Section  
Mt. Hennepin  
Belling Mount

4



Photograph Copyright by  
CHARLES J. BELDEN  
Z RANCH  
PITCHFORK, WYOMING



Photograph Copyright by  
CHARLES J. NELSON  
Z RANCH  
PITCHFORK, WYOMING

Elmwood  
H. H. Henderson  
Chicago  
Ill.

X





Photograph Copyright by  
CHARLES J. BELDEN  
Z  
T RANCH  
PITCHFORK, WYOMING

UNITED STATES COPYRIGHT LAW. IT IS THE RESPONSIBILITY OF THE RESEARCHER TO OBTAIN COPYRIGHT APPROVAL  
PRIOR TO QUOTATION OR PUBLICATION.

Report by Herman L. Henriksen

In the early Fall of 1938, Mr. L. L. Price, Chairman of the Montana Fish and Game Commission, and Mr. John Schofield, Superintendent of Fisheries, accompanied by their wives, paid Mrs. Henriksen and I a social call at our cabin at Great Falls.

The question of planting fish was brought up. The fact was mentioned as to the impossibility of reaching some of our mountain lakes with pack horses stock some of the virgin lakes which at present are unaccessible except to the fishermen on foot.

Being a plane owner and pilot, I had heard of fish being planted by airplane in Canada. I asked Mr. Schofield if he had any information as to what success might be expected. He replied that he did not know of any information available through our State or Federal Fish and Game Departments. I asked Mr. Price and Mr. Schofield if they would be interested in making an official test on the possibility of planting fish from the air. They both agreed they would.

It was decided that on October 15th, 1938, we would conduct this official test at Billings. I agreed to furnish the airplane and my service as a pilot if they would ship in the fish and be present.

The Billings Rod and Gun Club members were notified and asked to have a committee present. The application for waiver for dropping objects and flying at less than 300 feet was made to the Civil Aeronautics Authority for that date. The test to be made in an artificial lake which lies one mile north of the Billings Municipal Airport.

There were many ideas brought up as to just how would be the best way to drop these fish into the lake. The first and most natural was the idea of dropping the fish in a container supported by a parachute. This idea was quickly discarded as impractical because of the equipment that would be needed and only a few fish could be carried in such a container. If fish of any quantity were to be planted, too great a number would have to be crowded into the small container and the time required before the fish would ascend into the lake would have been too great and they would have suffered too much from suffocation.

One of the methods we tried was dropping the fish in special constructed steel tubes which were made to come to a sharp point, and increased to contract the water, thereby relieving the shock. This method necessitated leaving the end open. When this experiment was tried, we found that when released from the airplane (as picture will show) one water and fish appeared to be nearly all drawn from the tube, but upon examining the lake where the tubes fell, we found no dead fish and those were dropped at an altitude of about 200 feet. The finding of no dead fish prompted us to try the dumping of fish and water together into the air.

For this test we asked the members of the Montana Fish and Game Commission, Federal Bureau of Fisheries, and the Billings Rod and Gun Club, to have boats and get into a position on the lake where we would be able to take fish on them from altitudes of 50 feet to 200 feet. There they would have a positive point for checking the fish as they fell from the air and see the strike the water and either killed or swim away.

When all was set we loaded a can of fish in the ship and took Dick Loren in the row boat to fill a rubber ball with fish from the can and dump it into the lake directly over our lake. When these fish were dumped into the



STOCKING ISOLATE VIRGIN MOUNTAIN LAKES WITH YOUNG FISH FOR THE FUTURE  
SPORTSMAN RECREATION SHALL HAVE PUSHED TRAILS INTO THE NOW INACCESSIBLE  
PRIMITIVE AREAS.

PLANTING FISH BY AIRPLANE,

OCTOBER 11th 1939

SPONSORED BY THE BILLINGS ROD AND GUN CLUB.

ASSISTED BY MONTANA FISH AND GAME COMMISSION.

THIS REPORT BY CHAIRMAN OF COMMITTEE HERMAN H. THURICKSON

Following the successful test of planting fish by airplane made at Billings in October 1938. It was decided by the Billings Rod And Gun club to sponsor planting of some fish in the inaccessible lakes lying in the beautiful and capped range of the Beartooth Mountains. Three lakes were selected by the writer in a flight over this region and photographs were made of same. The lakes selected lie about two miles east of Goose Lake and about one mile south of Grasshopper Glacier, the altitude of these lakes are about 11,000 feet sea level.

The Montana State superintendant of Fisheries, Mr. John Schofield was consulted as to the kind of trout to plant in the mentioned lakes. It was agreed that we would be furnished 5,000 California Golden trout which are a native high altitude fish coming from the high elevated lakes of the California mountains of 10,000 feet or more. When fully matured these fish are a beautiful gold orange color. We were to have 5,000 Albino Brook trout, a rare fish. I understand these are a breed built up from the freak Albinos which every so often show up in the Eastern Brook trout hatching troughs at our Big Timber hatchery. These freaks were culled out into a separate trough and were raised in individual ponds and held until old enough to spawn. The spawn taken from these freaks reproduced a like Albino, which now we have had sufficient number to stock a number of Montana lakes. The fully matured Albino Brook is a ghastly white in color, the only markings that make it definitely known as a Brook is the ivory white leading edge of its fins. I have been told that some of these Albino Brook trout weighing as much as four pounds have been caught in one of our lakes which elevation is about 10,000 feet above sea level. The other 5,000 were to be a trout which is familiar to all sportsmen the famous Rainbow the fighter of all trout, and one that does very well in our high lakes. The only chance we took in planting the selected lakes was on the food value of the water the lakes being inaccessible it was impossible to make a water test however in the neighboring lakes such as Goose Lake (elevation 10,000 feet) has been famous for its food value and rapid growth of Cut Throat Native trout it produces.

Paul T. Arnest who owns a Stearman Biplane powered with a 450 h.p. Wasp motor a ship he had used for two years previous in his contract with the Federal weather bureau for making High altitude weather observations daily flights to altitudes of 17,000 feet, was contacted and he agreed to plant the fish.

It was necessary to install a special constructed tank in the front compartment with a six inch dump valve located in the bottom with the dump control lever to operate from the rear or pilots cockpit. The tank was designed with a hinged cover top, and also had a flexible copper tube opening to the front of the plane and leading to a position in the tank so that air pressure created by the speed of the plane in flight or the propeller blast would blow thru the water to furnish the necessary oxygen to the fish for duration of flight.

The young fish were loaded from the State Hatchery at Big Timber and delivered in the Hatchery tank truck to the Billings Municipal Airport, at which place they were transferred to the airplane tank and flown a distance of about eight air miles to their new home in the heart of the Beartooth Mountains.

three hundred at a time), I could see them leave the ship in a mist made by the water in the propeller blast. The fish were fluttering in all directions. The report from members on the lake in the boats was that the fish seemed to come down fluttering, striking the water and swimming away as though they had fluttered down only a few feet. This was true of all drops, even at 400 feet above the lake.

The unanimous opinion by all members was that fish could be dropped from any height without injury as long as the fish could hit the water before being exhausted.

This is what happens when the fish is taken from the water. It goes into a constant flutter or flaps until exhausted. This is true when they are dropped into the air. This causes the fish to flutter down similar to a falling leaf at which speed it can hit the water without injury. Should the fish become exhausted, it would straighten out and streamlined as they are, would gain a velocity that would no doubt bring destruction.

Thus successfully ended the official experiment of the aerial fish plan.

This being the first time that fish had been planted in this manner at these high altitudes, it was decided that we should have a picture record of same. We were fortunate to get Charles Beldon of Pitch Fork Wyoming. Who is well known and famous with his Cameras in making wild life and cowboy pictures. He took a complete story picture both in standard size motion and still shot. I had the pleasure to fly him in my Waco cabin ship, for all the pictures taken while fish plane was in flight. Mr. Beldon took pictures almost continually from the time the ship took off and to the time of the camp or the plant was made in the lakes. and I would like to say here that anyone interested in flying or any pilot will sure appreciate the terrain over which we flew over after studying the pictures, over the Mountains we were flying at altitudes of eleven to thirteen thousand feet with nothing but Rock walled canyons, lake and snow capped peaks for emergency landings had our motors failed. Tarrant finished his last trip with the Stowman at dusk having traveled about 480 air miles most at over 10,000 ft above sea level planted 13,000 fish from 2 to 5 inches in length in approximately 4 hours flying time, and one of the toughest places in the mountains.

## C. J. Belden

### Dies of Wound

ST. PETERSBURG, Fla., (AP)—Charles J. Belden, 78, talented photographer, died Tuesday at a hospital where he had been under treatment since Jan. 26 for a bullet wound in the forehead.

Belden, known as the "Cowboy Photographer," was found with a pistol beside him in the photographic darkroom of his North Reddington Beach home. Officers said he had been in poor health.

He once resided in Pitchfork, Wyo. He acquired his nickname for his photography of the cattle industry and cowpunching.

His photos appeared in National Geographic, Life, Sports Illustrated, Town and Country and Holiday magazines, among others.

No formal finding of the cause of death was announced.

# CKING REMOTE LAKES



who participated  
gerling trout by  
week. Left to  
perintendent of  
; Forest Keller,  
mber hatchery;  
ell Oil company  
John Schofield

of Helena, superintendent of state fisheries;  
B. L. Price of Laurel, chairman of the state  
fish and game commission; Art Trenerry,  
secretary of the Billings Rod and Gun club,  
and Dick Logan, manager of the municipal  
airport. Inset shows the plane flying over  
the lake and one of the "bombs" dropping  
with water falling in its wake.

had been hurt in the fall from 100  
feet.  
Schofield said after the experi-  
ment that he believed the experi-  
ment method, merely pouring the  
fish from a bucket, proved the most  
successful of all. The fish, left to  
float down through the air by them-  
selves, fluttered as they fell and re-  
tarded their drop. They hit the  
water with much less force than  
the others.

Schofield plans to change the

type of "bomb" and may try that  
method of dropping trout again. He  
plans to weight the pointed end of  
the cylinders so they will drop  
straight and sink under the water  
when they hit, liberating the fish.  
This method is believed more accu-  
rate than open dumping of the fish  
and would probably be more practi-  
cal for small mountain lakes where  
it was necessary to drop the fish

(Continued on Page 6, Column 2.)

## Planes Seen As New Aid in Fish Planting

(Continued from Page 1.)

from a greater height and hit a  
small target.

Schofield said that it would be  
for example to plant fish in small  
mountain lakes by planes than by any  
other means now used. He esti-  
mates that between 10 and 15 per-  
cent of all fish raised used by pack  
trains die before planting and that  
they cost 10 per cent would be killed  
in the same place. Many lakes  
now without fish could be planted  
from the air. The cost of flying a  
plane over a lake would also be less  
than it now costs for a crew of men  
and a string of pack horses to travel  
to a lake and back in planting.

For example, he said, fish could  
be taken from the Red Lodge hatch-  
ery and flown over one or several  
of the virgin lakes bordering the  
Red Lodge-Cooke City road and  
planted in a couple of hours where  
now it is a matter of days to do  
the job by pack horse.

Schofield was not alone in his  
enthusiasm over the experiment, as  
Price said he believed the system  
could be used to great advantage.

It may be a matter of months or  
years before the airplane method is  
used, but from the results of the  
experiment here it looks like it is  
sure to come sooner or later.



**BUFFALO BILL  
HISTORICAL  
CENTER**

**BUFFALO BILL MUSEUM  
CODY FIREARMS MUSEUM  
McCRACKEN RESEARCH  
LIBRARY  
PLAINS INDIAN MUSEUM  
WHITNEY GALLERY OF  
WESTERN ART**

BOX 1000 CODY, WYOMING 82414  
(307) 587-4771

March 19, 1992

Mark Gaub  
Montana Dept. of Wildlife and Parks  
Yellowstone River Trout Hatchery  
Box 508  
Big Timber, MT 59011

Mr. Gaub,

Here are the copies from our Belden archives on the fish stocking by airplane. If you would like prints of the photographs please contact Elizabeth Holmes our asst. registrar, she handles all our photo requests. If the photos are for study purposes only not publication, the cost is \$7.50 each (I think!). One of the letters I copied mentions some film footage but unfortunately the film was nitrate and disintegrated years ago.

No charge for the copies and if there is ever anything else you think we might be able to help with please let us know.

Sincerely,

Joan Murra, Clerk  
McCracken Research Library

OFFICIAL TEST OF PLANTING FISH BY AIRPLANE  
Report by Herman H. Henrickson

In the early Fall of 1938, Mr. B. L. Price, Chairman of the Montana Fish and Game Commission, and Mr. John Schofield, Superintendent of Fisheries, accompanied by their wives, paid Mrs. Henrickson and I a social call at our cabin at Cooke City.

The question of planting fish was brought up. The fact was mentioned as to the impossibility of reaching some of our mountain lakes with pack horses to stock some of the virgin lakes which at present are unaccessible except to the fisherman on foot.

Being a plane owner and pilot, I had heard of fish being planted by airplane in Canada. I asked Mr. Schofield if he had any information as to what success might be expected. He replied that he did not know of any information available through our State or Federal Fish and Game Departments. I asked Mr. Price and Mr. Schofield if they would be interested in making an official test on the possibility of planting fish from the air. They both agreed they would. This successfully ended the official experiment of the official test.

It was decided that on October 12th, 1938, we would conduct this official test at Billings. I agreed to furnish the airplane and my service as a pilot if they would ship in the fish and be present.

The Billings Rod and Gun Club members were notified and asked to have a committee present. The application for waiver for dropping objects and flying at less than 500 feet was made to the Civil Aeronautics Authority for that date. The test to be made in an artificial lake which lies one mile northeast of the Billings Municipal Airport.

There were many ideas brought up as to just how would be the best way to drop these fish into the lake. The first and most natural was the idea of dropping the fish in a container supported by a parachute. This idea was quickly discarded as impractical because of the equipment that would be necessary and only a few fish could be carried in such a container. If fish of any quantity were to be planted, too great a number would have to be crowded into the small container and the time required before the fish would ascend into the lake would have been too great and they would have suffered too much from suffocation.

One of the methods we tried was dropping the fish in special constructed steel tubes which were made to come to a sharp point, and supposed to penetrate the water, thereby relieving the shock. This method necessitated leaving one end open. When this experiment was tried, we found that when released from the airplane (as picture will show) the water and fish appeared to be nearly all drawn from the tube, but upon examining the lake where the tubes fell, we found no dead fish and these were dropped at an altitude of about 200 feet. The finding of no dead fish prompted us to try the dumping of fish and water together into the air.

For this test we asked the members of the Montana Fish and Game Commission, Federal Bureau of Fisheries, and Billings Rod and Gun Club, to take boats and get into a position on the lake where we would be able to rain fish on them from altitudes of 50 feet to 400 feet. There they would have a positive position for checking the fish as they fell from the air and see them strike the water and either killed or swim away.

When all was set we loaded a can of fish in the ship and took Dick Logan in the rear seat to fill a gallon pail with fish from the can and dump at a time we were directly over our lake judges. When these fish were dumped (about

three hundred at a time), I could see them leave the ship in a mist made by the water in the propeller blast. The fish were fluttering in all directions. The report from members on the lake in the boats was that the fish seemed to come down fluttering, striking the water and swimming away as though they had fluttered down only a few feet. This was true of all dumps, even at 400 feet above the lake.

The unanimous opinion by all members was that fish could be dropped from any height without injury as long as the fish could hit the water before being exhausted.

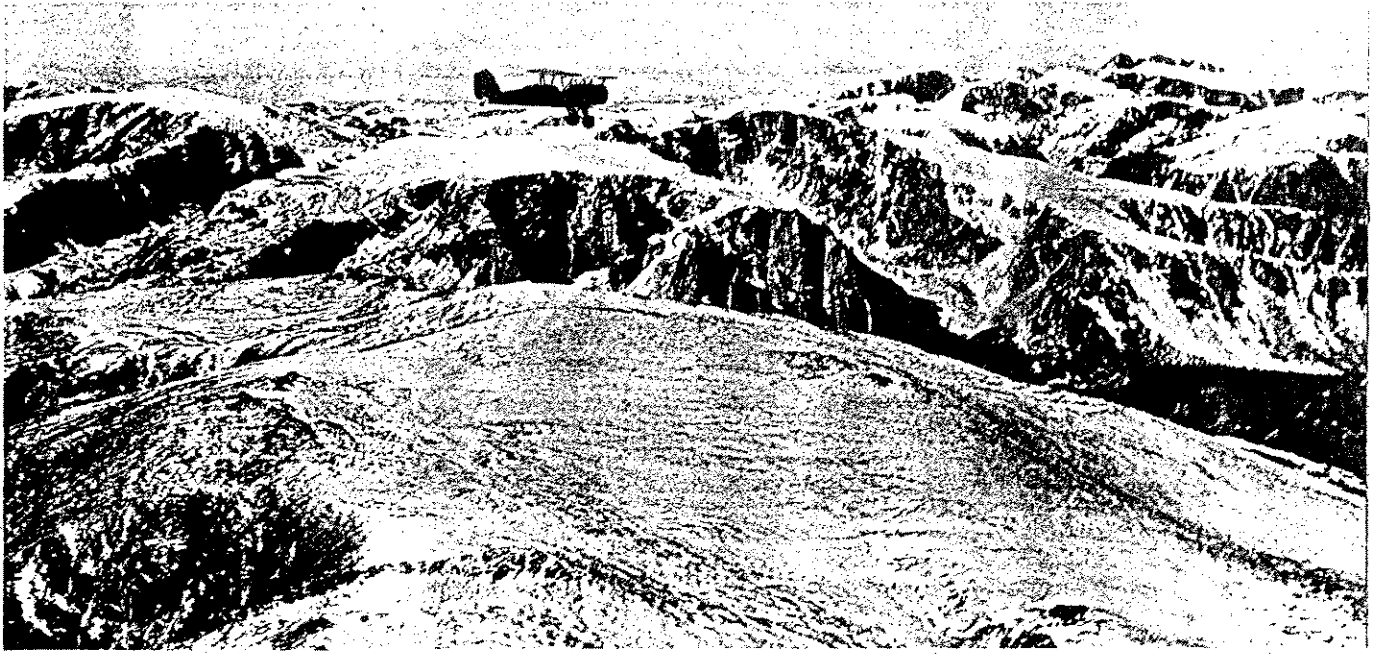
This is what happens when the fish is taken from the water. It goes into a constant flutter or flops until exhausted. This is true when they are dumped into the air. This causes the fish to flutter down similar to a falling leaf, at which speed it can hit the water without injury. Should the fish become exhausted, it would straighten out and streamlined as they are, would gain a velocity that would no doubt bring destruction.

Thus successfully ended the official experiment of the aerial fish planting.

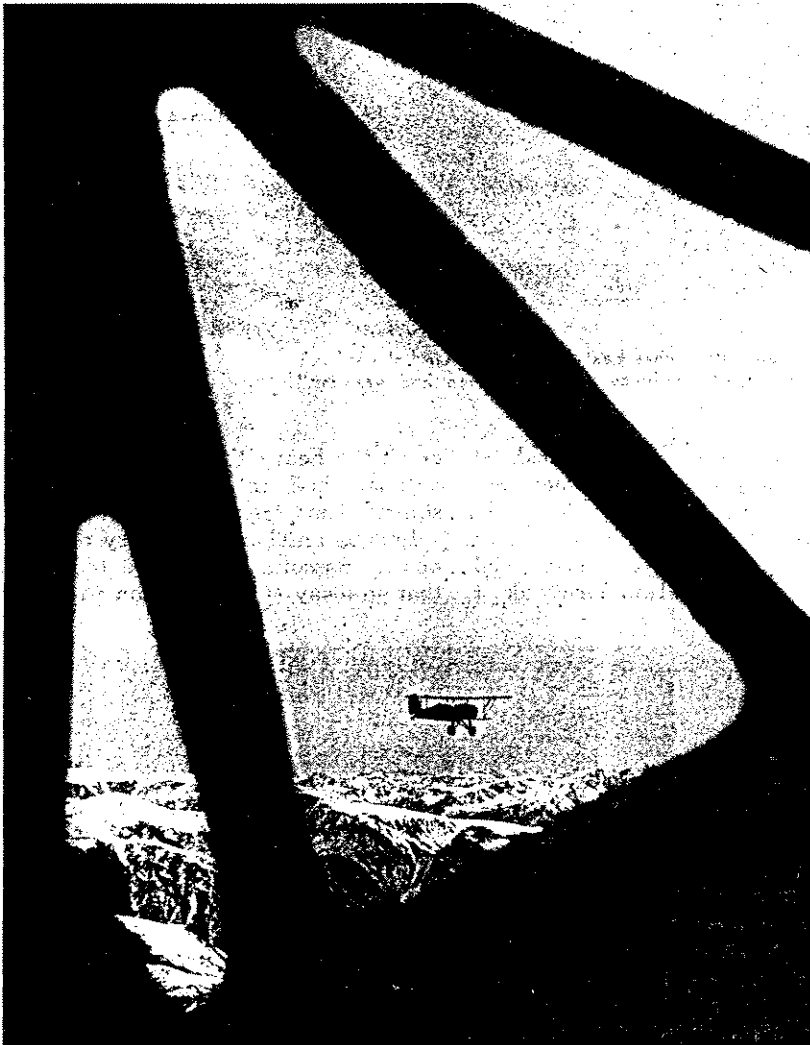
This is a copy of my report on the last years first test. It might not be of any use to you but I thought you might be interested in reading it. I didn't have it ready last night when I mailed the copy of our planting.

Herman.

# FLYING FISH IN THE ROCKIES



**Over the Beartooth Mountains.** "Flying fish tank" wings over divide at 14,000 feet elevation to seek new home for fingerling trout.



**Through the cabin window.** Plane returns to airport to refill its tank with fingerlings. Five thousand trout were dumped into a hitherto inaccessible lake.

Billings, Montana, Rod and Gun Club employs airplane to stock high altitude lakes in Rocky Mountains with trout.

*By*  
**CHARLES J. BELDEN**

**I**N THE evolution of things pertaining to the vast range and game areas of the West, the encroachments of civilization have pushed the old order almost out of sight, and both game and fish have had to take refuge in the high country. A century ago there was comparatively little wildlife in the rough mountainous regions, for the lower plains country provided ample year-round grazing, and there were few hunters. The streams were laden with fish, for there were few to catch them.

For a time the high, rough country provided a refuge for game and fish, but with road improvement and motor cars, more people broke through these natural barriers and sorely taxed our wild-life resources. Game laws and restocking programs, however, came to the rescue, and today game and fish are definitely on the upward tread.

The restocking of streams in the mountains and the stocking of fishless lakes of the back country have always presented difficult problems of transportation. Of course it is well known that when fingerling





1 Preliminary test flights over a lake near Billings, Mont., airport prove that trout can be dropped 300 ft. from a plane without injury.



2 Trout fingerlings from hatchery at Big Timber, Mont., are selected for planting-by-plane experiment. Photo shows hatchery trough.



3 First step in long jaunt to distant mountain trout lakes begins when trout are placed in a special truck, equipped with an aerator.

Photographs copyrighted by Charles J. Belden

trout are carried any distance that the water must be aerated, so the problems of transporting fish to inaccessible regions by pack horse are easily imagined.

IT HAS been claimed that isolated lakes have been stocked in some cases by fish dropped into them by passing hawks or other birds of prey. The reason for dropping the fish might possibly have been a battle between the two birds in mid-air over its possession. Such an incident has actually been witnessed, and perhaps laid the foundation for the planting of fish by airplane. In any case "the flying fish tank" has definitely taken its place in the stocking of countless mountain lakes from Alaska to Mexico that are accessible on the ground only to the slow-moving pack string.

A variety of methods have been devised for the dropping of fish from a plane into a lake, the most natural being the use of a container attached to a parachute. This idea has been tried with more or less success both in the United States and in Canada, but was not altogether practical on account of the equipment necessary, and because of the limited number of fish that could be carried in the containers.

If fish of any quantity were to be planted, too great a number would have to be crowded into small containers, and there would be considerable difficulty in keeping them properly aerated. Another objection to the use of containers was the shock when they struck the water, which stunned or killed a good many of the fish. It was attempted to relieve this shock by using a specially constructed steel tube which was made to come to a sharp point on one end so that it

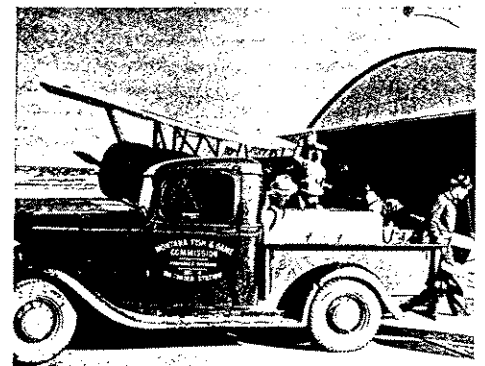
would penetrate the water. When this experiment was tried it was found that when the tube was released from the plane the contents of water and fish were nearly all drawn from the open end. On examining the lake where the tubes fell, no dead fish were found and this prompted the idea of dumping fish and water right from the plane.

In October 1938 the members of the Montana Fish and Game Commission took boats on a small lake near the airport at Billings, Montana, and arranged themselves in positions where they could observe the results of dropping fingerling trout from a low flying plane. When all was set a can of fish was loaded into a plane at the airport and flown to the lake by Herman H. Hendrickson, a private pilot and fish enthusiast. At elevations varying from 100 to 400 feet above the surface of the water the fish were baled from the can with a pail and dumped out directly over the boats.

The water was broken into a mist by the propeller blast and the fish went fluttering down in all directions. The observers on the lake reported that when the fingerlings struck the water they swam away immediately without having been injured in any way. The fluttering of the fish in the air apparently broke their fall to such an extent that they did not strike the water with sufficient force even to stun them. Thus ended the official aerial fish bombing experiment.

Following this successful test of planting fingerling

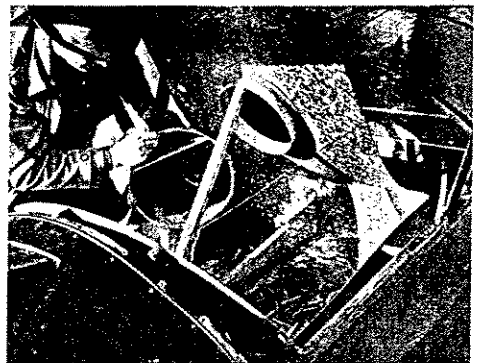
6 Trout are dumped into tank in plane, pailful by pailful. The tank is aerated by propeller blast.



4 The "fish taxi" draws up to Billings, Mont., airport with its load of 5,000 fingerlings—plane is gassed up and ready to take off.



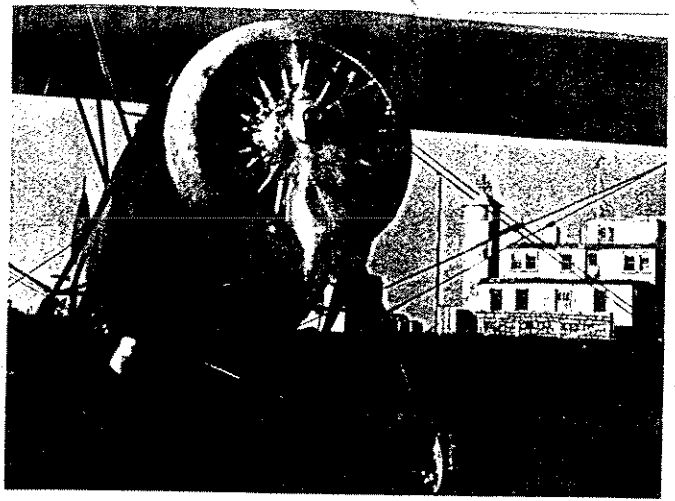
5 The job of transferring fingerlings from truck to specially constructed 40-gallon tank in front cockpit of plane is accomplished speedily.



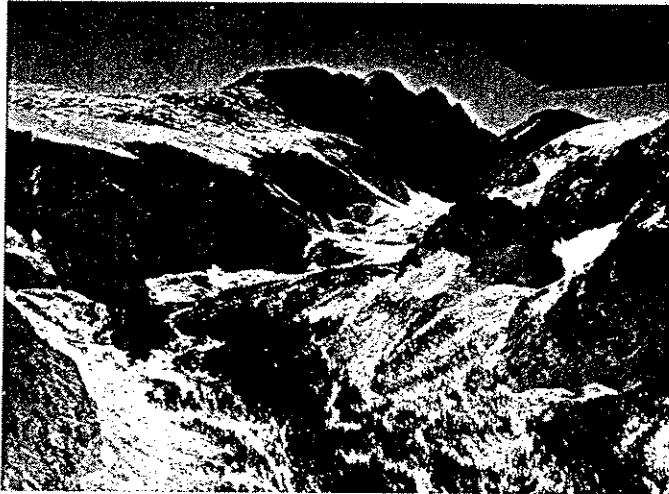
(Continued on next page)



7 Loaded with 5,000 trout fingerlings, the "flying fish tank" is ready to take off from Billings airport. Officials of the Montana Fish and Game Commission assist in preparations for the first flight.



8 The Plane's motor is being warmed up preparatory to take off. Trout will be released through a six-inch dump valve, which may be seen in lower left hand corner. Valve is operated from pilot's seat.



9 In the air, the plane wings its way over the mountains with its cargo of "flying fish." This photo shows Montana's highest peak, 12,850 feet. On the other side are alpine lakes, goal of the flight.



10 Forbidding peaks and treacherous air currents make this dangerous country to fly in. Maneuvering for a suitable approach, the plane swoops down close to the water and dumps the load of fish.



11 Four seconds is the time required to dump the load of 5,000 fingerling trout from the plane. Water is broken into mist by the propeller wash and the fish flutter down to the lake uninjured.



12 Mountains look cold and desolate from the warm cabin of the plane. It's only a few minutes ride to Billings airport, where the "flying fish tank" will land to take on another cargo of trout.

trout from a plane it was decided by the Billings, Montana, Rod and Gun Club to stock some of the inaccessible lakes lying just under the rugged snow-capped summits of the Bear-tooth Mountains, a hundred miles distant. The Montana State Superintend-

ent of Fisheries, John Schofield, was consulted as to the kind of trout to plant in these alpine lakes lying in rocky basins at altitudes of ten and eleven thousand feet.

It was decided that 5,000 California golden trout, which are a native high

altitude fish, would be furnished from the state hatchery at Big Timber. In addition to this 5,000 albino brook trout and 5,000 rainbow trout would be dropped from the air into other lakes in the same region. These albino trout have (Continued on page 80)

FLYING FISH IN THE ROCKIES

In the evolution of things pertaining to the vast range and game areas of the West, the encroachments of civilization have pushed the old order almost out of sight, and both game and fish have had to take refuge in the high country. A century ago there was comparatively little wildlife in the rough mountainous regions, for the lower plains country provided ample year-round grazing, and there were few hunters. The streams were laden with fish for there were few to catch them. For a time the high rough country provided a refuge for the game and fish, but road improvements, motor cars, more people, broke through these natural barriers and sorely taxed our wild-life resources. Game laws and restocking programs, however, came to the rescue, and today game and fish are definitely on the upward tread.

The restocking of streams in the mountains and the stocking of fishless lakes of the back country have always presented difficult problems of transportation. Of course it is well known that when fingerling trout are carried any distance that the water must be aerated, so the problems of transporting fish to inaccessible regions by pack horse are easily imagined.

It has been claimed that isolated lakes have been stocked in some cases by fish dropped into them by passing hawks or other birds of prey. The reason for dropping the fish might possibly have been a battle between the two birds in mid-air over its possession. Such an incident has actually been witnessed, and perhaps laid the foundation for the planting of fish by airplane. In any case "the flying fish tank" has definitely taken its place in the stocking of countless mountain lakes from Alaska to Mexico that are accessible on the ground only to the slow-moving pack string.

A variety of methods have been devised for the dropping of fish from a plane into a lake, the most natural being the use of a container attached to a parachute. This idea has been tried with more or less success both in the United States and in Canada, but was not altogether practical on account of the equipment necessary, and because of the limited number of fish that could be carried in the containers. If fish of any quantity were to be planted, too great a number would have to be crowded into small containers, and there would be considerable difficulty in keeping them properly aerated. Another objection to the use of containers was the shock when they struck the water, which stunned or killed a good many of the fish. It was attempted to relieve this shock by using a specially constructed steel tube which was made to come to a sharp point on one end so that it would penetrate the water. When this experiment was tried it was found that when the tube was released from the plane the contents of water and fish were nearly all drawn from the open end. On examining the lake where the tubes fell, no dead fish were found and this prompted the idea of dumping fish and water right from the plane.

In October 1938 the members of the Montana Fish and Game Commission took boats on a small lake near the airport at Billings, Montana, and arranged themselves in positions where they could observe the results of dropping fingerling trout from a low-flying plane. When all was set a can of fish was loaded into a plane at the airport and flown to the lake by Herman H. Hendrickson, a private pilot and fish enthusiast. At elevations varying from 100 to 400 feet above the surface of the water the fish were baled from the can with a pail and dumped out directly over the boats.

The water was broken into a mist by the propeller blast and the fish went fluttering down in all directions. The observers on the lake reported that when the fingerlings struck the water they swam away immediately without having been injured in any way. The fluttering of the fish in the air apparently broke their fall to such an extent that they did not strike the water with sufficient force to even stun them. Thus ended the official aerial fish bombing experiment.

Following this successful test of plantinf fingerling trout from a plane it was decided by the Billings, Montana Rod and Gun Club to stock some of the inaccessible lakes lying just under the rugged snow-capped summits of the Beartooth Mountains, a hundred miles distant. The Montana State Superintendent of Fisheries, Mr. John Schofield, was consulted as to the kind of trout to plant in these alpine lakes lying in rocky basins at altitudes of ten and eleyen thousand feet. It was decided that 5,000 California Golden trout, which are a native high altitude fish, would be furnished from the State Hatchery at Big Timber. In addition to this 5,000 Albino Brook trout and 5,000 Rainbow trout would be dropped from the air into other lakes in the same region. These Albino Brook trout have been built up into a distinct breed which every so often show up in the Eastern Brook hatching troughs. These freaks have been culled out into a seperate trough and raised in individual ponds until old enough to spawn. The fully matured Albino Brook trout is ghost white in color; the only markings that distinguish it definitely as a Brook is the ivory white leading edge of its fins. Some of these trout weighing as much as four pounds have been caught in one of two of these high altitude lakes.

Before it was possible to proceed with this aerial fish bombing expedition it was necessary to secure a permit from the Civil Aeronautics Authority to do two things which ordinarily are contrary to flying regulations: first, to drop objects from a plane and second, to fly less than 500 feet above the ground. It will be recalled that not so long ago a certain well known aviatrix was threatened with cancellation of her pilot's license because she dropped leaflets from a plane: notwithstanding her contention that leaflets were not "objects." The requisite permit having been granted the next step was the installation of the necessary equipment in the forward cockpit of a Stearman biplane that had been selected to play the part of the "flying fish tank." This plane was powered with a 450 H.P. engine and for two years the pilot, Paul Tarrant, had made daily flights to an altitude of 17,000 feet for the purpose of making weather observations for the Federal Weather Bureau.

A specially constructed tank holding about forty gallons was placed in the front cockpit. This tank had a six inch dump valve located in the bottom with the operating control carried back to the pilot's cockpit. The tank was designed with a hinged cover to keep the water from splashing out in case of any rough air was encountered. In order to keep the water aerated during flight a half inch copper tube was installed to lead from the tank to the small end of a funnel mounted on a strut of the plane and facing toward the front. Thus the pressure created by the propeller blast kept the water well stirred up and supplied the fish with plenty of air.

The four and five inch fingerling trout were delivered from the State Hatchery to the Billings Airport by means of the hatchery tank truck and there they were transformed into flying fish. With five thousand trout in the cockpit the "flying tank" took off from the Airport and pointed its nose toward the shining mountains some eighty miles to the West. Following along in his bright yellow Waco biplane was Herman Hendrickson anxious to observe the practical working of the revolution and romantic method for carrying fish from hatchery to their new home far up under high mountain peaks on the very borders of Yellowstone Park. A myriad beet fields and hay meadows of the fertile Yellowstone Valley were rapidly left far below and behind, and the two planes were in the high country with forbidding peaks and deep canyons on all sides. Rocky buttresses flashed by with breath-taking nearness, and then with startling suddenness the up-draught lifted the flyers over the top-most ridge lined with a fringe of perpetual snow.

On the other side of the divide the particular lake where the first load of fish were to be planted, was soon located deep in a rock-rimmed basin. It was a forbidding place to take a plane, but after manoeuvring for a suitable approach the Stearman dove down between granite walls, the load of fish were unloosed and under full throttle the powerful motor pulled the ship safely up into the blue sky. It took only four seconds to dump the fish and it was only a matter of minutes until the plane had landed at the airport for another load of fish. And so another chapter has been written in the accomplishment of modern methods for the propagation of wild life in wilderness areas.

---

# PLANE PLANTS 15,000 TROUT OVER 3 LAKES

## Experiment Believed Initial Attempt to Drop Fish in Area Above Timber Line.

What is believed to be the first experiment of fish dropping from an airplane in mountain lakes high above timber line was performed near here Wednesday when 15,000 fish were dumped into three isolated, unnamed lakes in the heart of the snow-clad Beartooth mountains about 75 miles south-west of Billings.

The plane, with a specially constructed 50-gallon metal tank built into its fuselage, was piloted by Paul Tarrant, of Billings, flight instructor at the local airport and for several years pilot of the weather instrument plane for the United States weather bureau. By releasing a valve, Tarrant was able to empty the tank of 15,000 fish within 10 seconds. Three trips were planned from Billings to dump the fish in the lakes.

Charles Beiden, of the Pitchfork ranch in Wyoming, well-known western photographer who together with Bill Monday of Cody, Wyo., has been making motion pictures of the experiment, said that the fish planting has never been done before at such an altitude and in such a dangerous spot.

The experiment is being sponsored by the Billings Rod and Gun club and various state officials are expected to observe the experiment. The first trip was made Wednesday morning to watch the loading of fish and the take-off into the sky.

About a year ago an experiment at Lake Elmo near Billings, when a plane dumped 15,000 fish into a lake, in cardboard boxes from depths of 100 to 400 feet. It was reported then that the fish were not injured and revived instantly when they struck the water.

The present flight will be the first attempt to actually plant fish in inaccessible lakes. The Rod and Gun club hopes to develop new fishing areas and to cooperate with the state game department in developing new trails to these now unreachable spots.

The 15,000 fish to be planted include 5,000 California Golden trout, 5,000 Albino Brook trout and 5,000 Rainbow trout. They were brought to Billings from the hatcheries at Big Timber and Bozeman.

Tarrant and Herrickson said Tuesday night that most of the fish would be dumped when the plane was about 300 feet above the lakes. The fish are located in the mountains between Red Lodge and Cooke City, generally west of Red Lodge, it was said.

# FILM FILLED TO PLANT FISH

## Photographer Plans to Shoot Scenes From Plane.

A new kind of "bombing" from air-planes was in preparation at the Billings municipal airport Tuesday night as two pilots and a noted photographer made ready to fly above the Beartooth mountains to dump 15,000 fish in lakes high above timber line.

Paul Tarrant, who for several years piloted the weather instrument airplane at the local airport, with a 50-gallon tank constructed in the bottom of his plane and a special release valve attached to the tank, will plane over the lakes in the mountains and dump the fish.

Charles Beiden of the Pitchfork ranch in Wyoming, well-known western photographer who together with Bill Monday of Cody, Wyo., has been making motion pictures of the experiment, said that the fish planting has never been done before at such an altitude and in such a dangerous spot.

The experiment is being sponsored by the Billings Rod and Gun club and various state officials are expected to observe the experiment. The first trip was made Wednesday morning to watch the loading of fish and the take-off into the sky.

About a year ago an experiment at Lake Elmo near Billings, when a plane dumped 15,000 fish into a lake, in cardboard boxes from depths of 100 to 400 feet. It was reported then that the fish were not injured and revived instantly when they struck the water.

The present flight will be the first attempt to actually plant fish in inaccessible lakes. The Rod and Gun club hopes to develop new fishing areas and to cooperate with the state game department in developing new trails to these now unreachable spots.

The 15,000 fish to be planted include 5,000 California Golden trout, 5,000 Albino Brook trout and 5,000 Rainbow trout. They were brought to Billings from the hatcheries at Big Timber and Bozeman.

Tarrant and Herrickson said Tuesday night that most of the fish would be dumped when the plane was about 300 feet above the lakes. The fish are located in the mountains between Red Lodge and Cooke City, generally west of Red Lodge, it was said.

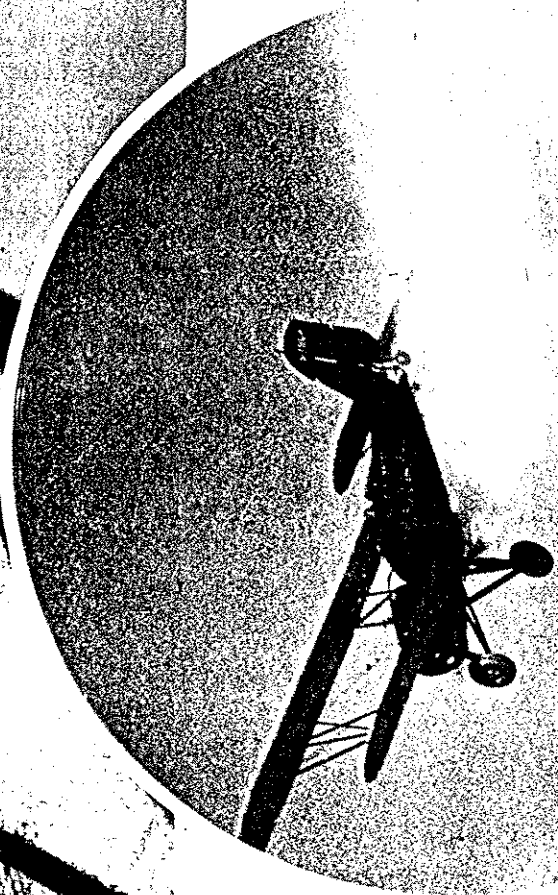
Permission for the flight has been granted by the civil aeronautics authority, and one of two of the inspectors will accompany the plane on Wednesday morning to check the plane and equipment before the take-off.

Officials expected here Wednesday morning for the start of the flight include James Weaver of Helena, state game warden, and J. H. McPherson, chairman of the fish and game commission; John Schofield, superintendent of fisheries for Montana; Charles Fuqua in charge of the federal fish hatchery at Bozeman and Art Trevelyan, warden of the state penitentiary. The gun club in the absence of Earl L. Fagg, club president.



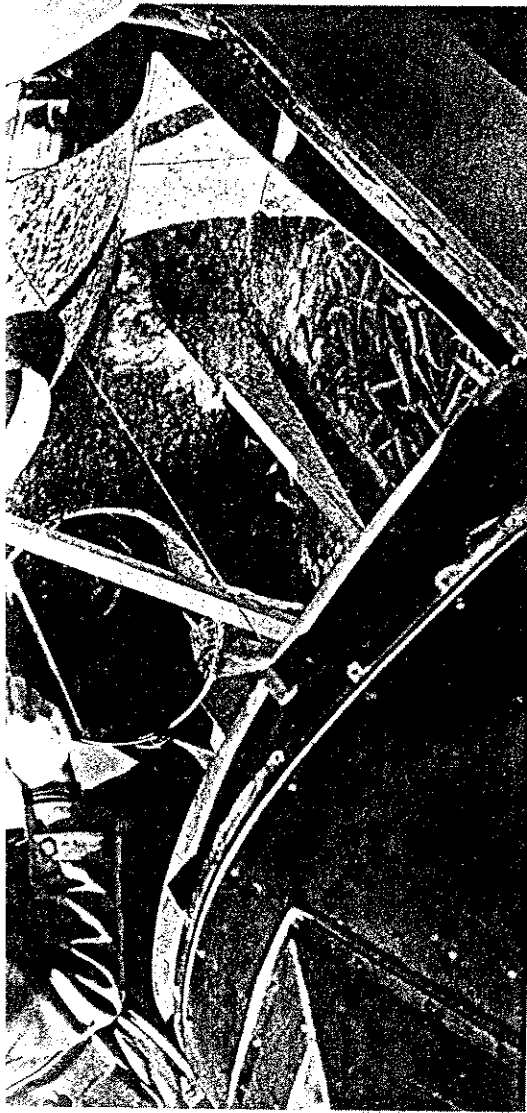
The Detroit News Pictorial for November 26, 1939

## Bombing Mountain Lakes With Fish



The problem of stocking small lakes high in the mountains with fish has been solved in Montana by the use of airplanes. It would be difficult to reach many of these lakes by land with cumbersome tanks loaded with live fish, so now the lakes are literally bombed with fish. Here two planes with 5,000 small trout are flying over the mountains looking for lakes.



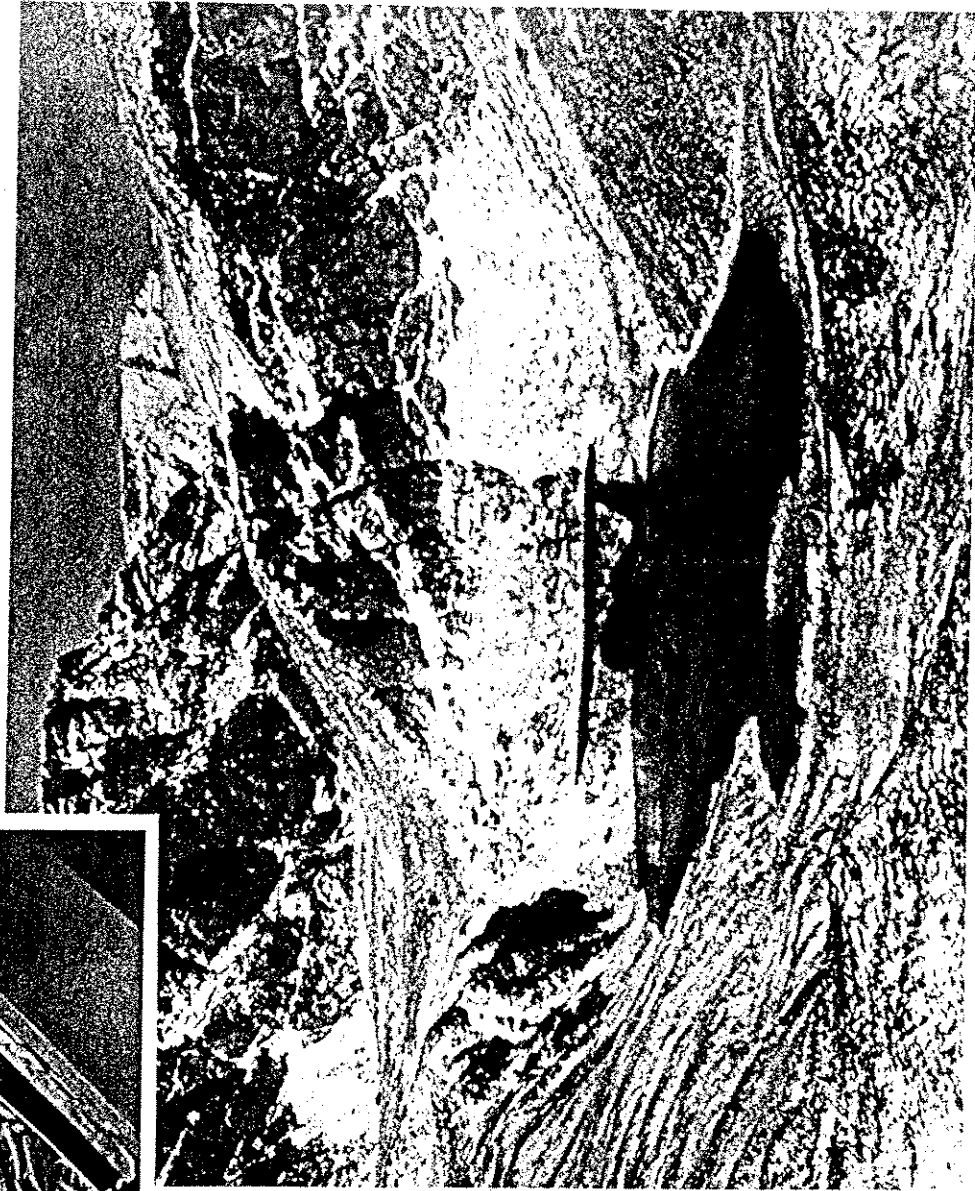


A 50-gallon tank in the forward cockpit of a plane being loaded with water and fish. There is a six-inch outlet in the tank bottom. Water is kept aerated in flight by means of a rubber tube connected to a funnel attached to a wing strut.



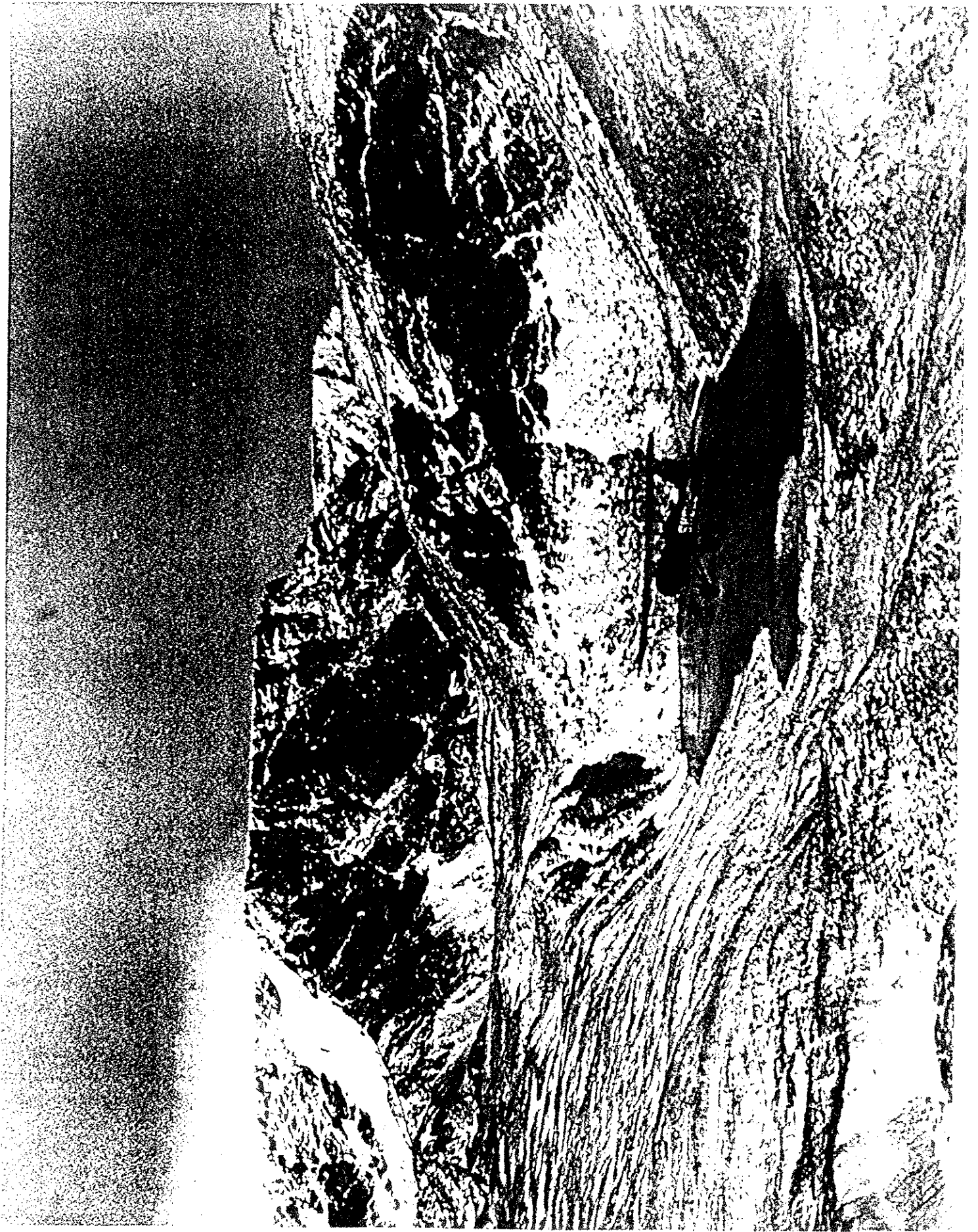
Fingerling albino trout, four to five inches, in the hatchery at Billings, Mont., just before being taken for an airplane ride.

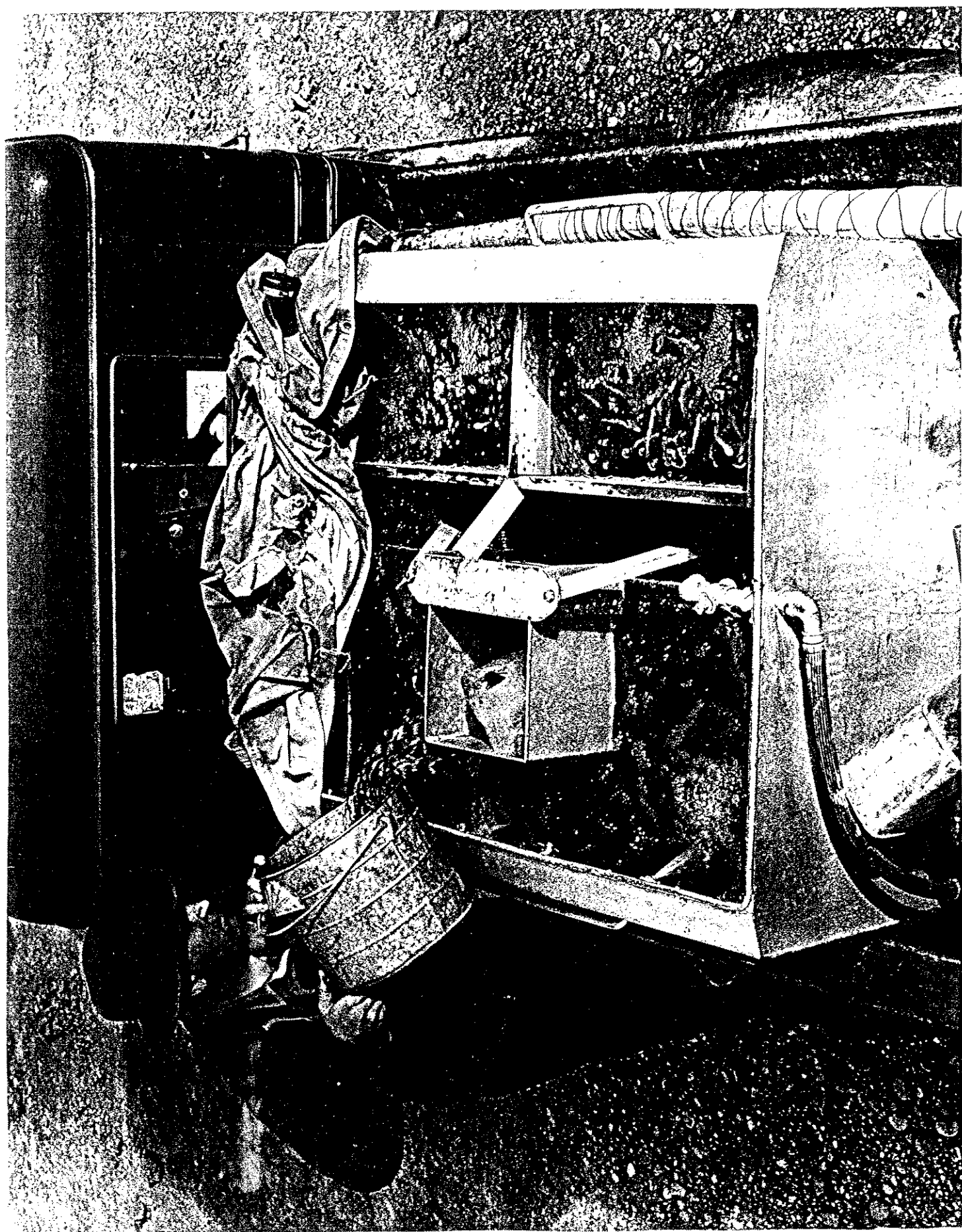
The "bombing." A 50-gallon tank of water and fish is emptied in five seconds. The small trout drop 200 feet in the spray without injury.



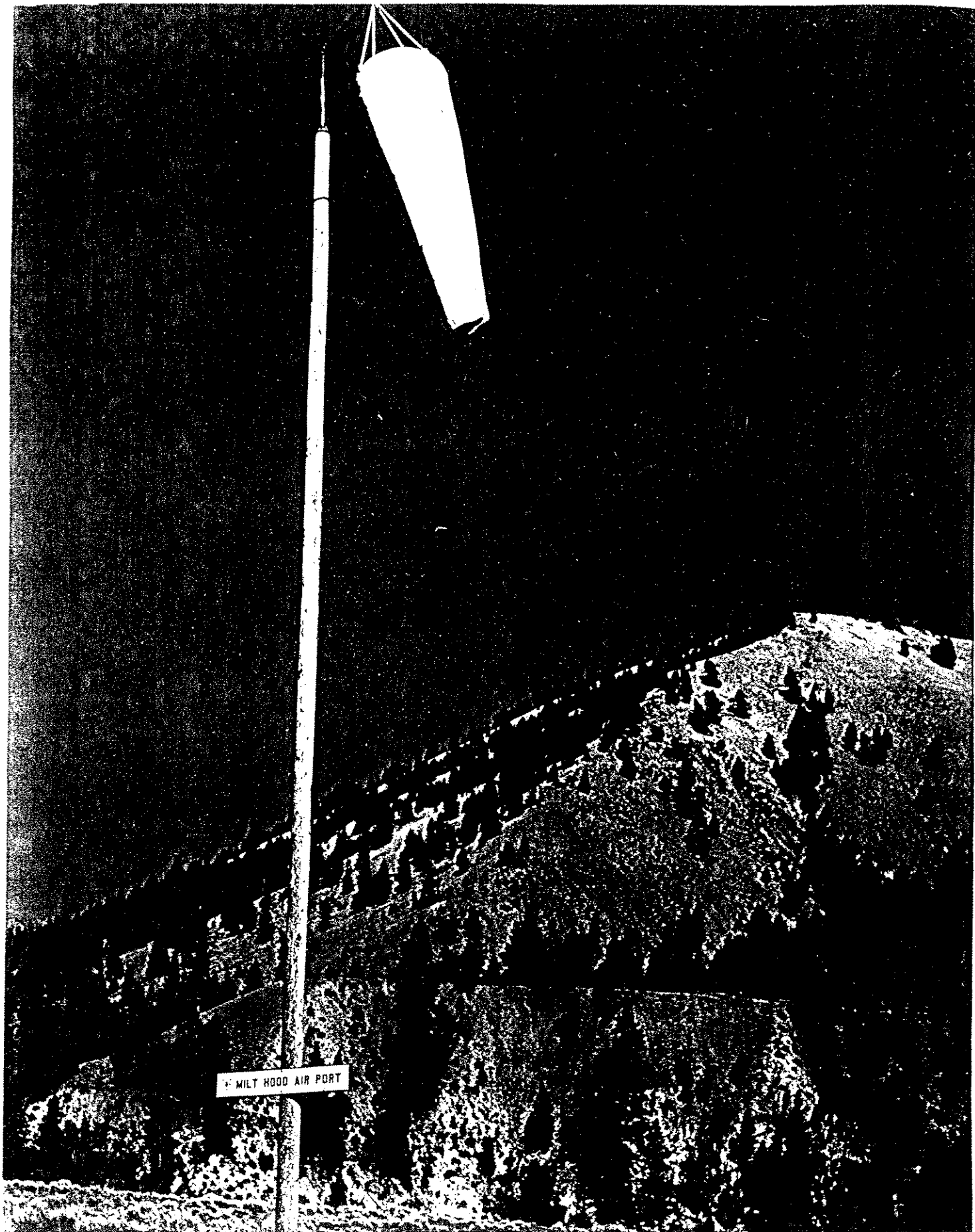
Flying 200 feet over a mountain lake, the plane maneuvers to drop its load.

—Photos by Charles J. Belden, Pitchfork Ranch, Wyoming

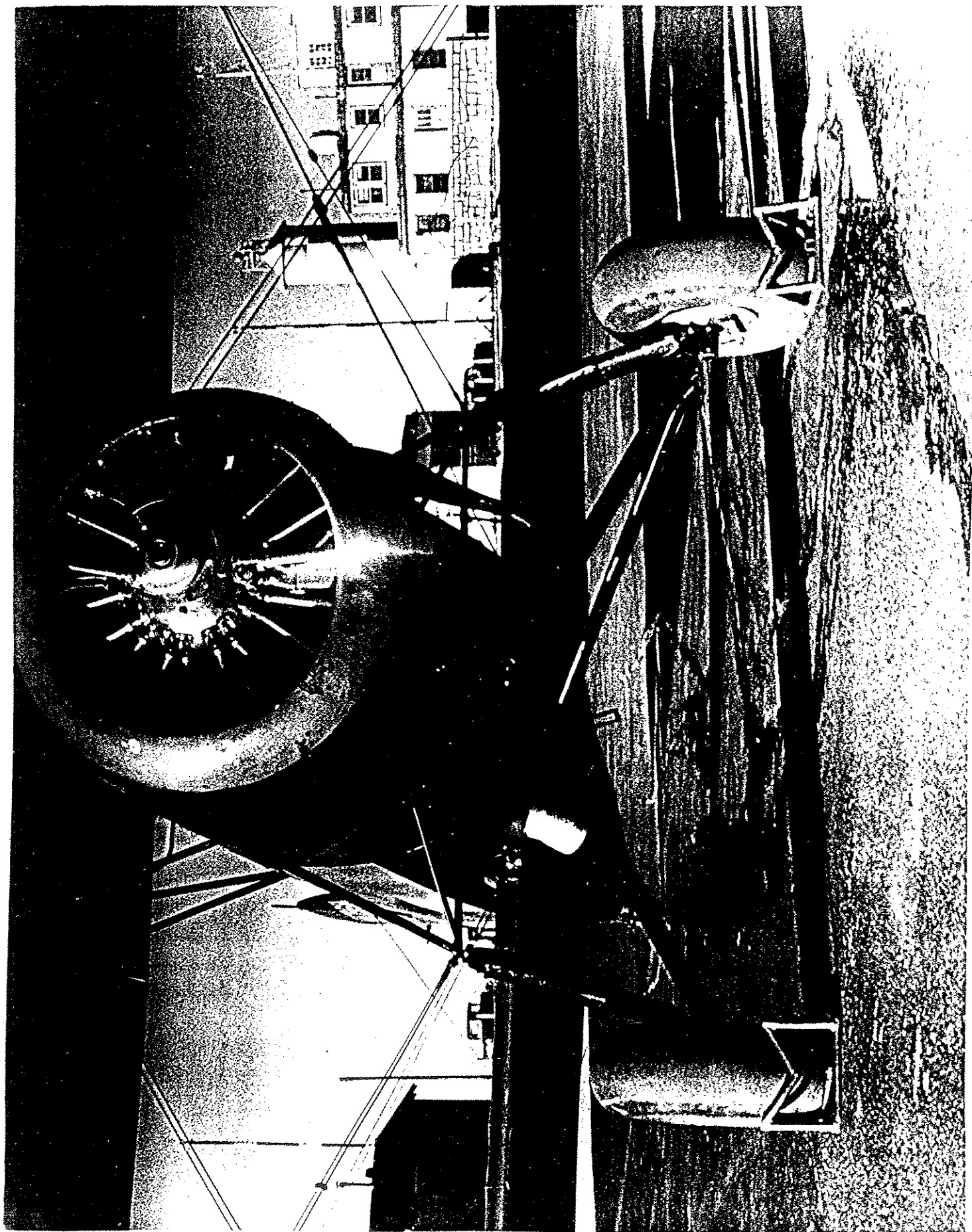


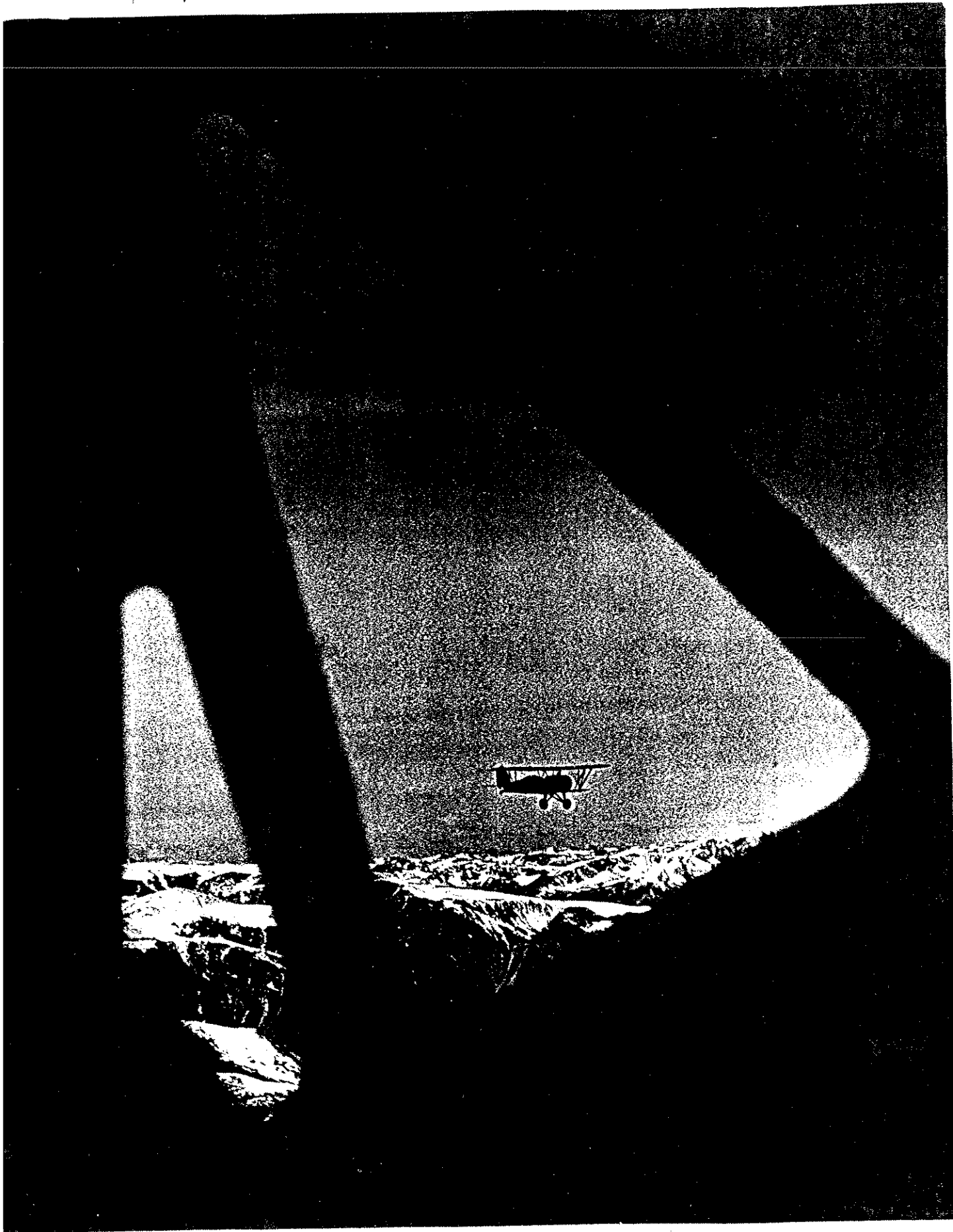








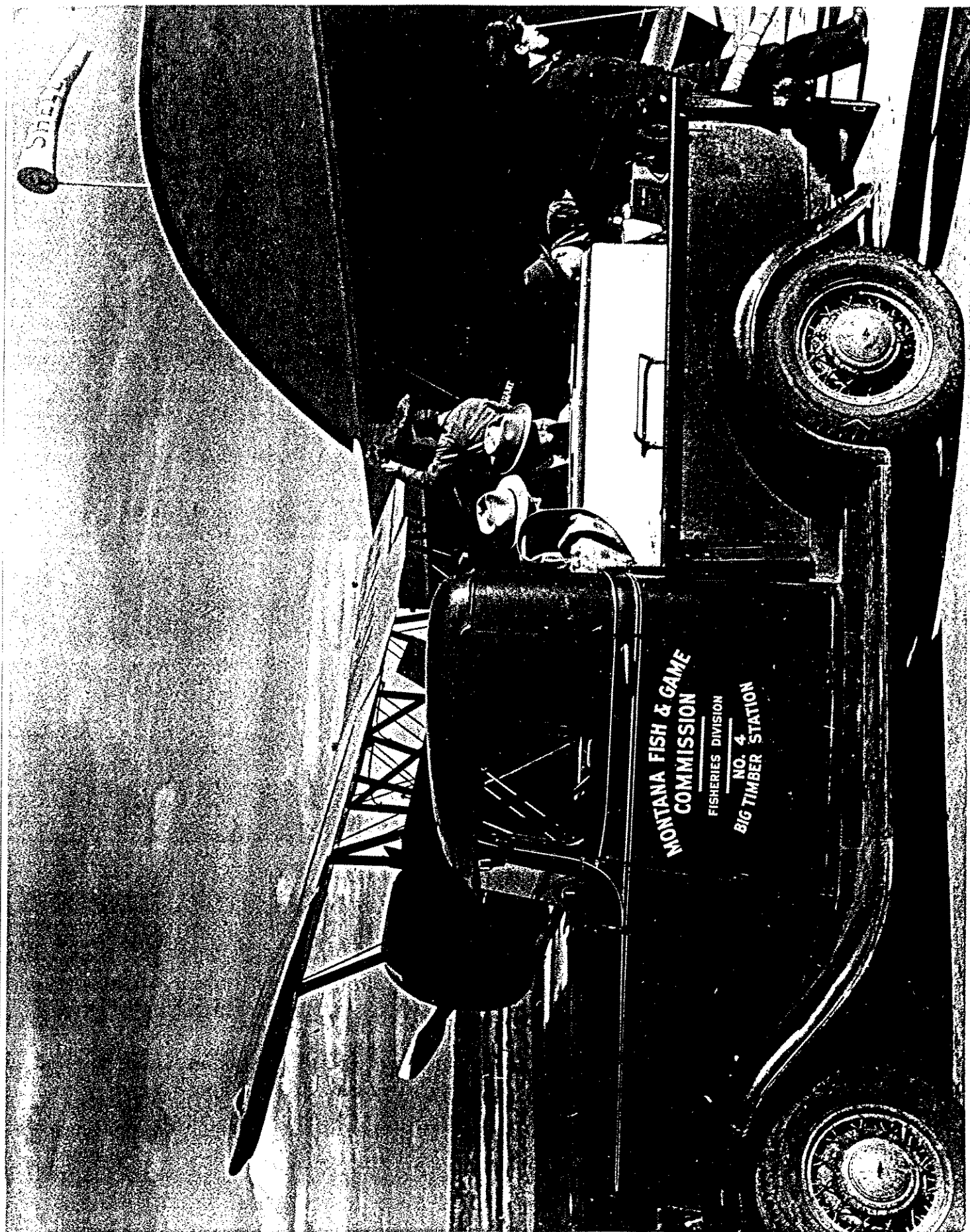


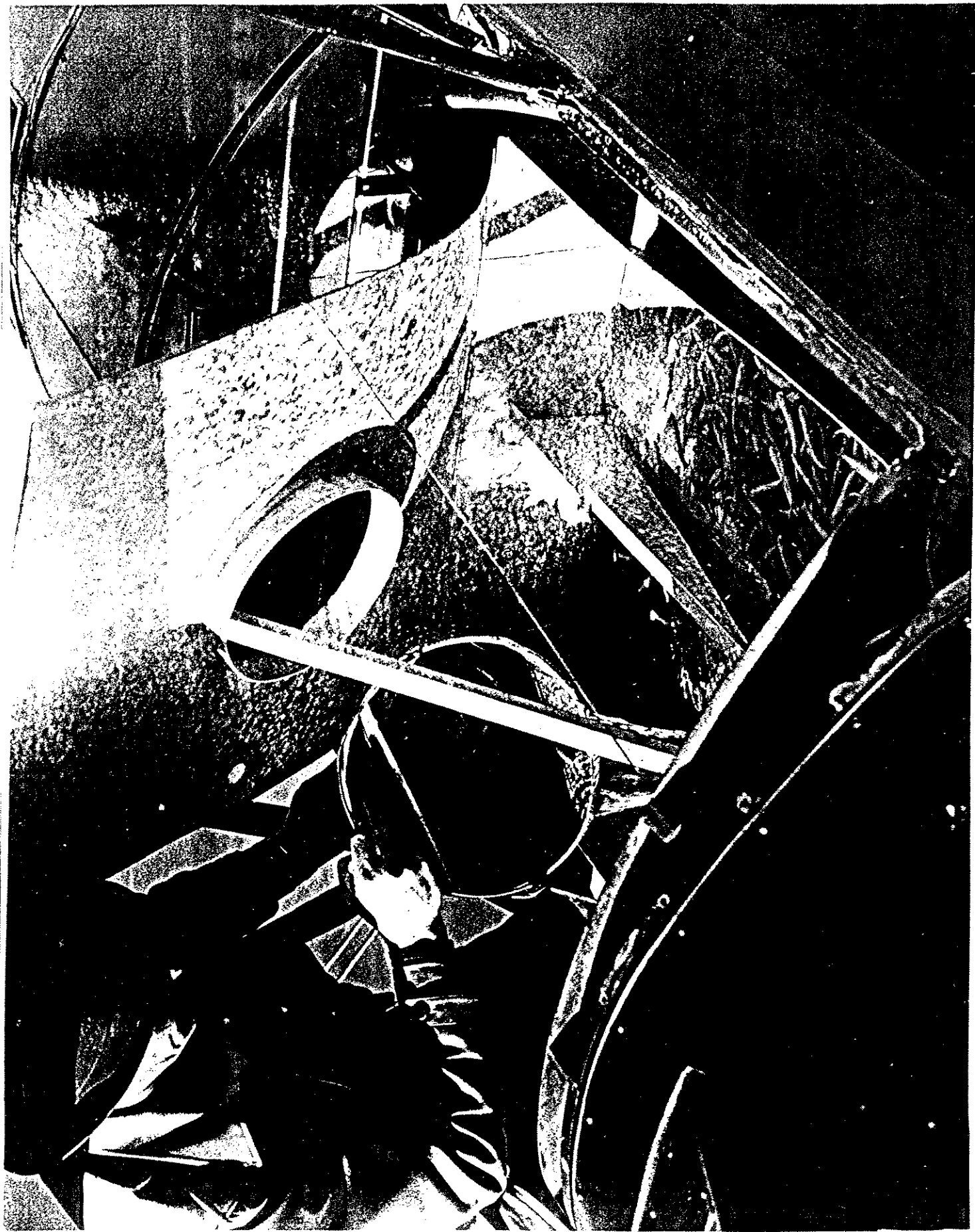


P/27 917-1









P67. 9.22.

leading edge of its fins. Some of the trout, weighing as much as four pounds have been caught in one or two of the high altitude lakes.

**B**EFORE it was possible to proceed with this aerial fish bombing expedition it was necessary to secure a permit from the Civil Aeronautics Authority to do two things which ordinarily are contrary to flying regulations: first, to drop objects from a plane and second to fly less than 500 feet above the ground. It will be recalled that not so long ago a certain well known aviatrix was threatened with cancellation of her pilot's license because she dropped leaflets from a plane; notwithstanding her contention that leaflets were not "objects." The requisite permit having been granted, the next step was the installation of the necessary equipment in the forward cockpit of a Stearman biplane that had been selected to play the part of the "flying fish tank." This plane was powered with a 450 h. p. engine and for two years the pilot, Pat Tarrant, had made daily flights to an altitude of 17,000 feet for the purpose of making weather observations for the Federal Weather Bureau.

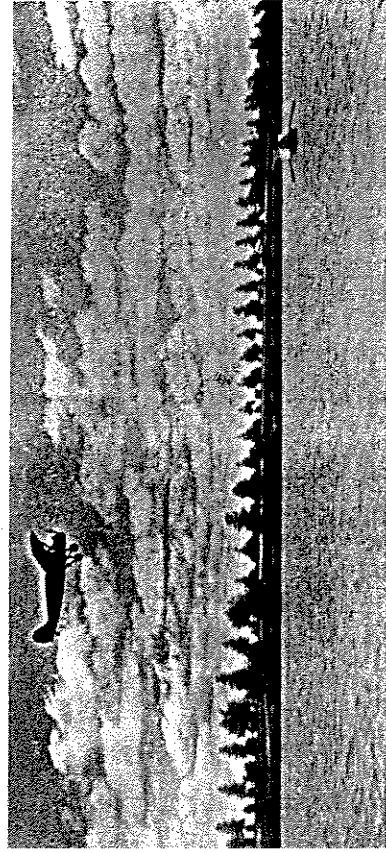
A specially constructed tank holding about 40 gallons was placed in the forward cockpit. This tank had a six inch dump valve located in the bottom with the operating control carried back to the pilot's cockpit. The tank was designed with a hinged cover to keep the water from splashing out in case any rough air was encountered. In order to keep the water aerated during flight a half inch copper tube was installed to lead from the tank to the small end of a funnel mounted on a strut of the plane and facing toward the front. Thus the pressure created by the propeller blast kept the water well stirred up and supplied the fish with plenty of air.

The four and five inch fingerling trout were delivered from the State Hatchery to the Billings airport by means of the hatchery tank truck and there they were transformed into flying fish. With 500 trout in the cockpit, the "flying tank" took off from the airport and pointed its nose toward the shining mountains some 80 miles to the west. Following along in his bright yellow Waco biplane was Herman Hendrickson, anxious to observe the practical working of this revolutionary and romantic method for carrying fish from hatchery to their new home far up under high mountain peaks on the very border of Yellowstone Park. Beet fields and hay meadows of the fertile Yellowstone Valley were rapidly left far below and behind, and the two planes were in the high country with forbidding peaks and deep canyons on all sides. Rocky buttresses flashed by with breath-taking nearness and then with startling suddenness the up-draught lifted the flyers over the top of the most ridge lined with a fringe of perpetual snow.

On the other side of the divide the particular lake where the first load of fish was to be planted was soon located deep in a rock-rimmed basin. It was a forbidding place to take a plane, but after maneuvering for a suitable approach the Stearman dove down between granite walls, the load of fish was unloosed and under full throttle the powerful motor pulled the ship safely up into the blue sky. It took only four seconds to dump the fish and it was only a matter of minutes until the plane had landed at the airport for another load of fish. And so another chapter has been written in the accomplishment of modern methods for the propagation of wild life in wilderness areas.

EARLY IN JUNE, the Wyoming Game and Fish Department conducted the first aerial fish transplanting experiment ever attempted in the State. A fundamental purpose of the experiment was to gauge the practicability of air-plantings under varying conditions, and to test a plan generally recommended for such planting procedures. The preliminary survey indicates that the planting method is practicable, and further experiments are planned for the future, with a view to developing the method to a point where it may be used generally in stocking the more inaccessible lakes in the mountain areas of Wyoming. Young fish must be hauled considerable distances in small canvas pack trains to reach some of the fishing lakes today, and the use of an aero-planting method will save much time and money for Wyoming sportsmen in the Wyoming Game and Fish Department, as well as the lives of many fish.

Sloan's Lake near Cheyenne



**SOME DROP LEAFLETS**, some para-troops, and other explosive eggs. This one dropped fish—ten thousand of them—into placid Sloan's Lake last month. Game & Fish Department members who made the plant say that it is easy to hit a lake the size of Sloan's with that many fish when mild "dive-bombing" is

## "Fish-Blitz" Experiment is Successful

### *Initial Tests Encourage Aerial Fish Planting*

was selected as the initial testing ground, because of its accessibility, and because its altitude (6,062 feet) and its size (30 acres) are typical of many of the Wyoming lakes where the practice may be employed in the future.

About 9,600 brown trout 1 1/4 inches long were used in the experiment. They were transported in eight-gallon milk cans, each can containing 1,200 fish. Four flights were made over the lake, and two cans were dumped each flight at an altitude of about 100 feet with plane traveling at a speed of from 75 to 80 miles an hour.

The plane employed was a Stinson cabin monoplane piloted by Earl Scotter of Plains Airways, Cheyenne; and State Fish Warden James R. Simon, Eugene E. Bjorn and Gail Thomas did the actual planting. The cans were equipped with long, funnel-shaped

snouts, capped at the ends (see next page), and one door of the plane was removed. As the plane dipped low over the water, the long snout was thrust deep into the slip stream of the propeller, and the cap released by means of a lever affair in the planter's hand. The fish, thus released, plumped down through a hundred feet of nothing, into the waters of their new home.

A limited amount of pioneer work has been done in other western States, in the field of aerial fish planting, but in no publicized experiment was a careful check made to determine the casualty rate among the fish thus planted. This angle was consequently emphasized in the Wyoming experiment. Observers were stationed at intervals upon the surface of the lake to watch the reaction of the fish on striking the water and to gather in for inspection any

that might come "belly up." The observers were also equipped with nets to take any specimens that appeared to be injured. It was the plan to place such specimens in a rearing pond "live box" and to observe them for several days, to see whether they might recover from their injuries.

No dead or injured fish were taken, however, for the very good reason that none of either category was seen. The fact that all fish observed dived promptly to the bottom after striking the water was particularly encouraging because the inclination of all normal fish is to seek hiding when frightened or confused.

To quote a few of the Cheyenne sportsmen who cooperated in the experiment by acting as observers on the lake:

R. K. Stewart—"The planting was very successful. All of the fish I saw went right to the bottom of the lake. Many of them seemed to strike flat, but these dived promptly out of sight."

Al Bitner — "I was sprinkled



**LOOKING FOR CASUALTIES** on Sloan's Lake, after some ten thousand brown trout fingerlings were dumped from plane one hundred feet overhead, at a speed of 75-80 m.p.h. Observers were sometimes showered with fish and water. A dili-

## THIS FISH STORY HAS SCIENCE STUMPED

**D**URING the Central Asiatic expeditions to Mongolia that I took part in, a good many "believe-it-or-not" things happened. Perhaps the strangest of all occurred one night when the whole camp was awakened by fish in the middle of the Gobi Desert.

Our tents were pitched on a grassy bank close to the edge of a shallow, brackish lake, Kholobolchi Nor. A strong wind blew from the west until about two o'clock in the morning, pushing the shallow water over to our side of the lake. Suddenly the wind dropped and the water receded so quickly that a great number of small fish that had been feeding close to the bank were left stranded on a strip of mud about three feet wide.

Flapping wildly as they tried to work back into the water, they made a noise like scores of people softly clapping their hands. The noise soon brought every man in camp out into

the brilliant moonlight where thousands of glittering forms were flashing along the shore.

We found fish in several other lakes in the driest part of the desert. How did they get there? That is one of the most puzzling questions in natural history.

### Carried by Birds?

**T**HE most usually accepted theory is that birds such as gulls, terns, ducks and geese, transport to these lakes the fish eggs that adhere to their feet or feathers. But the fish in the Gobi lakes were near relatives of those in the Ob River of Siberia, more than a thousand miles away. Could a bird fly that far without the eggs' dying or being lost at some intermediate stop? No one knows.

It is suggested also that birds such as hawks or eagles may catch a live fish in one lake and drop it by accident in another near by. Possibly in some

instances there have been drainage systems in long-past geological periods which connected lakes, now many miles apart.

"Rains of fish" have been reliably reported in various parts of the world. These have been accounted for by whirling windstorms that have caught up masses of water containing fish and deposited them in a deluge on unsuspecting people many miles away. I have seen such whirling windstorms often in the Gobi. One struck our camp and carried pots and pans high into the air. It is conceivable that a windstorm might transport fish from one lake to another if the lakes were not far from each other. But, of course, carrying them hundreds of miles by this method is out of the question.

Our knowledge of the interesting phenomenon of how desert lakes obtain their fish isn't sufficient to give a satisfactory answer.

—ROY CHAPMAN ANDREWS



October 17, 1939.

Mr. Daniel Longwell,  
Life Magazine,  
Rockefeller Center,  
New York City.

Dear Dan:

I am enclosing herewith a set of photographs that I made a day or two ago on a rather novel experiment on the planting of fish in remote mountain lakes by airplane. In a way this expedition was not purely experimental for the reason that about a year ago preliminary tests were made along these lines. In order to determine whether or not small fingerling trout would be injured by being dropped from a plane into the water experimental flights were made over a lake adjacent to Billings, Montana, and observers were stationed on the shores of the lake to determine the results of dropping fish from a plane. The small fish that were dropped out of the plane were seen to swim as soon as they hit the water, and even some of the fingerlings that dropped on the shores of the lake were uninjured and after being picked up by hand and thrown into the water they also swam away. In the light of these experiments, the Montana Game Commission this year prepared to plant fish in the remote lakes of the Beartooth range of the Rocky Mountains by dropping them out of a plane flying over the lakes at an elevation of 100 to 300 feet above the lakes. A fifty gallon tank was constructed to fit into the cockpit of a Stearman plane and in the bottom of this tank a six inch hole was made in order to allow the dumping of the trout. The flights were conducted under the auspices of the Montana State Game Commission and also with the consent of the Civil Aeronautics Authority, in order to avoid any difficulties such as Laura Ingalls recently got into at Washington. Although Laura Lingalls claimed that pamphlets were not objects, it would hardly be possible to make the same claims for a wiggling trout flying down from a plane.

It seemed to me that due to the fact that anything dealing with fish or fishing has such an universal interest that this story might be suitable for your use. It also has the added interest of hazzardous flying in extremely rough and inaccessible mountain country. The lakes that were stocked are remote from highways and can be reached only by horseback. You can of course realize that it is an extremely

October 17, 1939.

Page # 2  
Mr. Daniel Longwell.

difficult and slow process to transport fish in any number by pack horse. I am enclosing a few local newspaper clippings on this expedition.

Will you be good enough to let me know as soon as possible whether or not you can use this story in order that I may submit it elsewhere in case you do not find it suitable.

With kindest personal regards to yourself and also to Miss Locke, I am

Sincerely yours,



October 18, 1939.

Paramount News,  
544 West 43rd Street,  
New York City.

Attention Mr. Leslie M. Poush.

Dear Mr. Poush:

Under separate cover I am sending you a roll of approximately 350 feet of undeveloped Super X Pan film that I made a few days ago on an airplane fish planting story. I am enclosing herewith some local newspaper clippings on this expedition. Due to the fact that fishing has more general interest than any other sport, I thought that this story might be suitable for your use. There is also the added interest of flying over an exceedingly rough mountainous country. The danger of getting a plane within a hundred or two hundred feet of the surface of these mountain lakes cannot be exaggerated, and it requires some pretty expert flying.

As a title for the story, I would suggest either "FLYING FISH IN THE ROCKY MOUNTAINS" or perhaps to get the popular war angle into it it might be called "BOMBING ROCKY MOUNTAIN LAKES WITH FISH." The sequence of the film is approximately as follows:

Fingerling Albino trout in the Montana State Fish Hatchery rearing ponds at Big Timber, Montana. These trout are four to five inches long and are a freak of nature that have been developed from Eastern brook trout. The fingerlings are taken from the rearing troughs in the hatchery and carried by bucket to the pick-up truck which is equipped with a tank and a small gasoline driven air compressor which keeps the water aerated. Truck proceeds to airport at Billings, Montana, where a specially equipped Stearman plane is waiting to transport the trout to the alpine lakes in the rugged Beartooth mountains along the eastern borders of Yellowstone Park. The trout are transferred from the truck to a fifty gallon tank that has been constructed in the forward cockpit of the plane. There is a six inch opening in the bottom of the tank through which the trout and water can be released in flight by raising a rubber stopper.

October 18, 1939.

Page # 3.

Paramount News.

I am still hoping that by some hook or crook things may be worked out so that I can secure a copy of the technicolor film "IN OLD WYOMING" as I would like, very much to have this for my own use. In view of the fact that I provided locations and atmosphere shots in the way of coyote, antelope, cowboys and horses for the film without any charge, I think that the powers that be should take this into consideration.

If you ever see Harold McCracken, give him my kindest regards. I have not heard from him since I left New York last Spring.

With best regards to yourself and hoping that you may be able to get some suitable material out of this story, I am

Sincerely yours,