

**REQUEST TO ESTABLISH DOCKET**  
(PLEASE TYPE)

Date April 26, 1996

Docket No. 96 0537-WU

1. Division Name/Staff Name Division of Legal Services (O'Sullivan) *JS*
2. OPR Division of Legal Services (O'Sullivan) *JS*
3. OCR Division of Water and Wastewater
4. Suggested Docket Title Complaint by Dr. Will Gross against Southern States Utilities, Inc. regarding high-water usage registered at meter.

5. Suggested Docket Mailing List (attach separate sheet if necessary)

- A. Provide NAMES ONLY for regulated companies or ACRONYMS ONLY regulated industries, as shown in Rule 25-22.104, F.A.C.  
B. Provide COMPLETE name and address for all others. (Match representatives to clients.)

1. Parties and their representatives (if any)

Brian Armstrong  
Southern States Utilities, Inc.  
1000 Color Place  
Apopka, FL 32703-7753

Dr. Will Gross  
1899 Woodbine Court  
Marco Island, FL 33937

2. Interested Persons and their representatives (if any)

The Office of Public Counsel  
c/o The Florida Legislature  
111 W. Madison Street, Room 812  
Tallahassee, FL 32399-1400

\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_

6. Check one:

- Documentation is attached.  
 Documentation will be provided with the recommendation.



## Public Service Commission

-M-E-M-O-R-A-N-D-U-M-

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**DATE:** April 26, 1996  
**TO:** Division of Records and Reporting (Bayo)  
**FROM:** Division of Legal Services (Jaber) *JL*  
**RE:** Note to File

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An issue related to this matter was originally identified in Docket No. 950495-WS. At the direction of the Prehearing Officer at the April 19, 1996, Prehearing Conference, the issue was removed so that this matter could be addressed in a separate docket in the form of a complaint.

Although Collier County rescinded the Commission's jurisdiction on February 27, 1996, this matter was pending in Docket No. 950495-WS. In accordance with the Prehearing Officer's ruling, this docket must be opened to process the final disposition of this matter.

State of Florida

Commissioners:

SUSAN F. CLARK, CHAIRMAN  
J. TERRY DEASON  
JULIA L. JOHNSON  
DIANE K. KIESLING  
JOE GARCIA



DIVISION OF WATER &  
WASTEWATER  
CHARLES HILL  
DIRECTOR  
(904) 413-6900

## Public Service Commission

January 30, 1996

Mr. Gil Compton  
Customer Services  
Southern States Utilities, Inc.  
960 North Collier Boulevard  
Marco Island, Florida 33937

Re: Customer Inquiry, Docket No. 950495

Dear Mr. Compton:

This letter serves as a partial follow-up to Dr. Gross' inquiry regarding extremely high water usage during the month of December, 1995. Mr. Ed Cucinelli, an engineer with Precision Meters, has agreed to have the meter inspected by the manufacturer, at no charge. Mr. Cucinelli has been informed of the history of the meter, and that the meter tested satisfactorily during a bench test. Two years' usage information for Dr. Gross has also been forwarded per Mr. Cucinelli's request.

Upon reviewing a chart of the monthly usage for Dr. Gross, it became obvious that the two months prior to the high usage month of December were also abnormal. The water usage for October and November were 3,290 and 4,460 gallons, respectively. The "normal" usage for this customer centers around 30,000 gallons per month. Does the utility have a system in place to flag abnormal readings, whether they be abnormally high or low? Please provide your response in writing within 30 days to Karen Amaya.

As promised by Ms. Amaya at the recent Service Hearing, enclosed are copies of Commission Rules pertaining to service provisions. Specifically, I direct you to (1) Rule 25-30.230 which indicates the meter is the utility's responsibility, and (2) Rule 25-30.266 pertaining to customer rights and meter testing. Although the latter rule does not specifically direct the utility to inform the customer that the Commission may have a representative available during a meter test, it does state that upon written request from either the utility or the customer, the Commission may provide a representative. Further,

Mr. Gil Compton  
Southern States Utilities, Inc.  
January 30, 1996  
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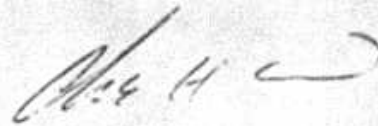
it directs the utility to advise the customer of his or her right to witness the bench test.

Please ship the meter in question to Precision Meters at the following address:

ATTN: Mr. Ed Cucinelli  
Precision Meters  
11100 Astronaut Boulevard  
Orlando, Florida 32837

If you have questions regarding this request, please contact Ms. Amaya at (904) 413-6948. Thank you for your cooperation in this regard.

Sincerely,



Charles H. Hill  
Director

CHH:ka  
Enclosures

cc: Judy Sweat, Manager, Customer Service

bee: Dr. Gross w/copy of 25-30 — Suc. Provisions



**Marco Island Office**

**RECEIVED**

FEB 14 1996

Florida Public Service Commission  
Division of Water and Wastewater

P.O. Box 197  
Marco Island, FL 33969

Business  
(813) 394-3880  
Customer Service  
(813) 394-3168

February 12, 1996

Charles H Hill, Director  
Florida Public Service Commission  
2540 Shumard Oak Blvd.  
Tallahassee, Florida 32399-0850

Re: Customer Inquiry, Docket No. 950495

Dear Mr. Hill,

In reference to your letter dated 1/30/96, regarding the customer inquiry of Dr. Will Gross. The meter was sent to the attention of Ed Cucinelli With Precision Meter on 2/12/96.

SSU does have a system in place that identifies abnormally high or low meter readings. The meters are read with electronic hand held devices. If a keyed meter reading is outside the high/low parameters the device will beep the meter reader to verify the meter reading and re-enter the reading. After the meter readings are unloaded from the electronic hand held devices, a meter reading edit is printed. The meter reading edit is reviewed to check meter readings that are less than previous, or excessively high or low. We also run an exception report that prints any dollar amounts that do not fall within the set parameters, accounts that do not have a current meter reading and/or read date, and any meter readings to be reviewed. A reread listing is prepared from the exception report and dispatched out for a field investigation to be rechecked.

Dr. Gross's meter was read on 12/04/95 and the reading was 1436750. The meter readings were unloaded that night and his account flagged on the meter reading edit dated 12/05/95. A field investigation was dispatched and performed on the 5th. The meter reading was 1439090 and there was no indication of a leak at that time. As a final check, the account was also flagged on the exception report that printed on 12/13/95. The meter reader was dispatched again to check the meter before the account was locked for billing. The meter reading was once again verified and the meter reader spoke to Dr. Gross at that time.

We have had several conversations with Dr. Gross and he was advised of his right to witness the bench test. At the request of Dr. Gross, a meter bench test was performed by the City of Naples on 1/24/96.



**Marco Island Office**

P.O. Box 197  
Marco Island, FL 33969

Business  
(813) 394-3880  
Customer Service  
(813) 394-3168

Dr. Gross was present during the meter test and the meter test results for accuracy were within the parameters of the guidelines as set forth by the Public Service Commission.

If you have any question, or if I can be of any further assistance, please let me know.

Sincerely

  
\_\_\_\_\_  
Gil Compton, Supervisor

c: Karen Amaya, FPSC  
Judy Sweat, SSU  
Brian Armstrong, SSU  
Dr. Will Gross

SOUTHERN STATES UTILITIES, INC.  
DOCKET NO.: 950495-WS  
RESPONSE TO INTERROGATORIES

REQUESTED BY: FPSC  
SET NO: 14  
INTERROGATORY NO: 469  
ISSUE DATE: 03/18/96  
WITNESS: Undetermined  
RESPONDENT: Karla Olson Teasley

INTERROGATORY NO: 469

Please refer to the utility's letter to Mr. Chuck Hill dated February 12, 1996 from Mr. Gil Compton. Please explain why Dr. Gross' abnormally low usage was not flagged and investigated since his flows for November and October 1995 were about 1/8th of the usual flows.

RESPONSE: 469

The majority of our meters are read with hand held electronic meter reading devices. A check is made in the field at the time the meter reading is keyed in the device by the meter reader. If the usage is outside the high or low parameter the device will beep the meter reader to verify and re-enter the meter reading. In addition to the field check, our billing system provides a report and flags all accounts with high, low or zero usage. The process also flags accounts with less than previous usage and meter rollover readings. These reports are reviewed and a field investigation is made, whenever it is deemed to be necessary. A field investigation is routinely performed on any accounts with excessively high usage. This is basically done to determine any situations that should be promptly corrected or reported to the customer, such as leaks, etc. Field investigations are necessary for accounts with zero usage, no readings entered and readings less than previous. These investigations are necessary to provide our billing personnel with the information necessary to bill the customer and process any adjustments, if necessary. ~~A field investigation is not always performed for low usage.~~ This is basically due to the large amount of accounts printed with low usage and in consideration of any previous on-site verification made for low usage. There are several ordinary circumstances which can cause a reduction in water usage. For example, changes in water conservation, customer absence for several weeks or months, or changes in the number of occupants in the residence for a period of time. SSU is unable to identify circumstances like these in most situations, even after a field investigation has been performed.

State of Florida

Commissioners:  
SUSAN F. CLARK, CHAIRMAN  
J. TERRY DEASON  
JULIA L. JOHNSON  
DIANE K. KIESLING  
JOE GARCIA



DIVISION OF WATER &  
WASTEWATER  
CHARLES HILL  
DIRECTOR  
(904) 413-6900

**Public Service Commission**

March 6, 1996

Charlie Beck, Esq.  
Office of Public Counsel  
c/o Pick-Up Box,  
Division of Records and Reporting

Dear Mr. Beck,

As I discussed with Mr. McLean earlier today, enclosed are the pertinent documents from Staff's file pertaining to Dr. Gross, an SSU - Marco Island customer. Dr. Gross testified at the Customer Service Hearing held at Marco Island in January. His water consumption for the month of December, 1995 is reported as 311,520 gallons.

Ms. Amaya visited Dr. Gross at his residence and looked at the meter pit, the outside ozonator, and the lawn; no visible signs of high water usage such as erosion or standing water were seen. The ozonator is located outside of the house and it treats all utility water being supplied to the home. As water is used, the ozonator starts. When asked, Dr. Gross stated that the corresponding electric bill for December was not high, therefore, the possibility exists that the water may not have gone through the ozonator. Dr. Gross and his wife were on vacation during the period of high usage, but had friends checking the house who did not notice any running water or irregularities with the automatic irrigation system.

The meter in question was bench tested by the City of Naples, at Dr. Gross' expense, and the results are enclosed. The meter ran slow for low and high flows, and ran fast for intermediate flows. The meter was then sent to Precision Meters (the manufacturer) who agreed to inspect the meter for potential problems. The resulting engineering report is enclosed, and cites several possible conclusions.



Please call me, or Ms. Amaya, if you have questions regarding the enclosed documentation. Dr. Gross has been notified that his inquiry was being transferred to your office. Dr. Gross can be reached at (813) 394-8406.

Sincerely,

*Robert J. Crouch, KA*  
Robert J. Crouch, P.E.  
Supervisor, Engineering

RJC/ka  
Enclosures

cc: Mr. Gil Compton, SSU-Marco Island  
Dr. Wil Gross  
DIVISION OF WATER AND WASTEWATER (C. Hill, M. Willis, K. Amaya)  
DIVISION OF LEGAL SERVICES (L. Jaber)

# Precision Meters, Inc.

11100 ASTRONAUT BOULEVARD • ORLANDO, FLORIDA 32837-8200

TELEPHONE: (407) 851-4470

FAX # (407) 855-1881

## ENGINEERING REPORT

Customer: SSU - Marco Island

Return #: 96021504

Date Received: February 15, 1996

Date Prepared: February 28, 1996

Engineer: Ed Cucinelli

Engineering Report #: E96021504F-1/7

### Reason for Return:

A 1" PMM meter, serial number 92583400, was received for evaluation. The meter had recorded 1,452,600 gallons. The meter was said to have "jumped" registration of more than 200,000 gallons. Karen Amaya of the Florida Public Service Commission had requested that the meter be inspected to try to determine if the meter malfunctioned.

### Response:

Karen Amaya sent a copy of the customer's usage history, a summary is attached. After reviewing this information, it seemed that two issues existed. The first was an explanation of the very low usage in the months of October and November of 1995. The second issue was the large usage in December.

Upon receipt, the meter was tested. All flow rate tests were performed, but the register did not rotate at any flow. The pointer would simply flicker back-and-forth, a sign of a bind within the register.

The meter was received with the tamper seal punctured, as shown in Photo 96-09-04. This indicates that the register could have been removed prior to our receipt.

The register was first disassembled and a bind was obvious. The magnet shield within the register had become dislodged and caused a bind on the gears. Photographs 96-09-05 and 96-09-08 show the loose magnet shield and the internals of the register, respectively. Once loose, this shield can move upon vibration. It is my understanding that this meter was tested by the City of Naples prior to shipment to Precision Meters. This test was witnessed by several people and the meter tested accurately. Depending on the position that the loose magnet shield rested during the test, the meter could have operated properly and accurately. This explains the low usage months.

The meter was then disassembled. Photographs 96-09-09 and 96-09-10 show the internal workings of the meter. These parts were in good condition and do not seem to have caused any problems.

## ENGINEERING REPORT

Customer: SSU - Marco Island

Return #: 96021504

Date Received: February 15, 1996

Date Prepared: February 28, 1996

Engineer: Ed Cucinelli

Engineering Report #: E96021504F-2/7

### Response: (continued)

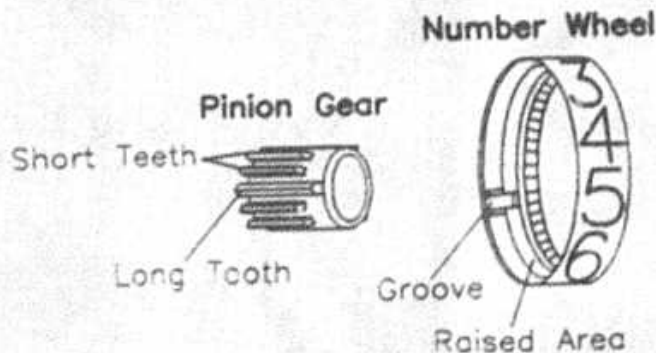
There were no obvious signs of the meter "jumping" registration. In order to investigate this further the roller counter was tested. Initially, the roller counter was rotated in reverse to 1,200,000, then incremented back to 1,500,000. The roller counter operated without a flaw.

The manufacturer of the roller counter was contacted. It was agreed that only two conditions can cause a number wheel to advance; normal pinion gear transfer or "free-spin."

If an internal pinion gear is missing, the subsequent number wheel can "free-spin." This means that the number wheel is free to spin at anytime, usually rotated by vibration. This can only occur if an internal pinion gear is missing. The roller counter was checked internally. All pinion gears were within the roller counter and aligned correctly, therefore, the number wheel could not "free-spin."

The normal cause for a number wheel to advance is via normal pinion transfer. The design of the internal pinion gearing is such that the number wheel has to be aligned with the pinion gear. If this alignment is not correct, or foreign material interferes, the roller counter will bind and not rotate.

To explain this further I have provided the drawing below. The pinion gear has three long teeth and six short teeth. In order for the more significant number wheel to increment, the long tooth of the pinion gear must fit into the groove of the previous number wheel. If the pinion gear tried to rotate without the long tooth aligning with the groove, the long tooth will press against the number wheel and cause the roller counter to bind. If the roller counter binds, the register will not increase as the magnetic coupling strength will not overcome this bind.



## ENGINEERING REPORT

Customer: SSU - Marco Island

Return #: 96021504

Date Received: February 15, 1996

Date Prepared: February 28, 1996

Engineer: Ed Cucinelli

Engineering Report #: E96021504F-3/7

Response: (continued)

It is my professional opinion, and that of the roller counter manufacturer, that the roller counter did not prematurely increment. The meter itself could not have created this large increase unless water actually passed through the meter.

After discussions with Karen Amaya of the Florida Public Service Commission and Gil of Southern States Utilities, I can only offer several possible explanations:

- 1) the residence used this volume; possibly through an ozonator bypass if one exists
- 2) the register was switched or tampered with as the tamper seal was punctured, although the register itself was sealed and could not have been internally tampered
- 3) the irrigation system leaked, although given the volume of water some evidence should exist
- 4) a significant amount of air went through the meter (the meter will record the flow of air), although high air flows should result in wear on the measuring chamber

I hope that this offers some help in resolving the issues surrounding this meter. Please contact me with any additional questions. Thank you.

## Meter Usage Summary

ENDING DATE	USAGE	NO. OF DAYS/CYC	GPD	METER NUMBER
JAN 3 '96	32,220	30	1,074	* 952524863
DEC 4 '95	311,520	31	10,049	925834003
NOV 3 '95	4,460	30	149	"
OCT 4 '95	3,290	28	118	"
SEP 6 '95	22,180	30	739	"
AUG 7 '95	31,320	32	979	"
JUL 6 '95	30,040	30	1,001	"
JUN 6 '95	36,310	33	1,100	"
MAY 4 '95	40,030	29	1,380	"
APR 5 '95	25,810	30	860	"
MAR 6 '95	35,200	27	1,304	"
FEB 7 '95	26,950	32	842	"
JAN 6 '95	25,330	29	873	"
DEC 8 '94	20,220	28	722	"
NOV 10 '94	31,750	30	1,058	"
OCT 11 '94	26,780	32	837	"
SEP 9 '94	34,140	30	1,138	"
AUG 10 '94	24,380	28	871	"
JUL 13 '94	20,080	30	669	"
JUN 13 '94	34,380	33	1,042	"
MAY 11 '94	30,700	28	1,096	"
APR 13 '94	34,400	33	1,042	"
MAR 11 '94	27,520	28	983	"
FEB 11 '94	21,950	30	732	"
JAN 12 '94	27,400	30	913	"

\* new meter is 1" also, but only used for 2 weeks

Photographs of Repair # 96021504



Photo # P-96-09-01  
Meter in Condition Received

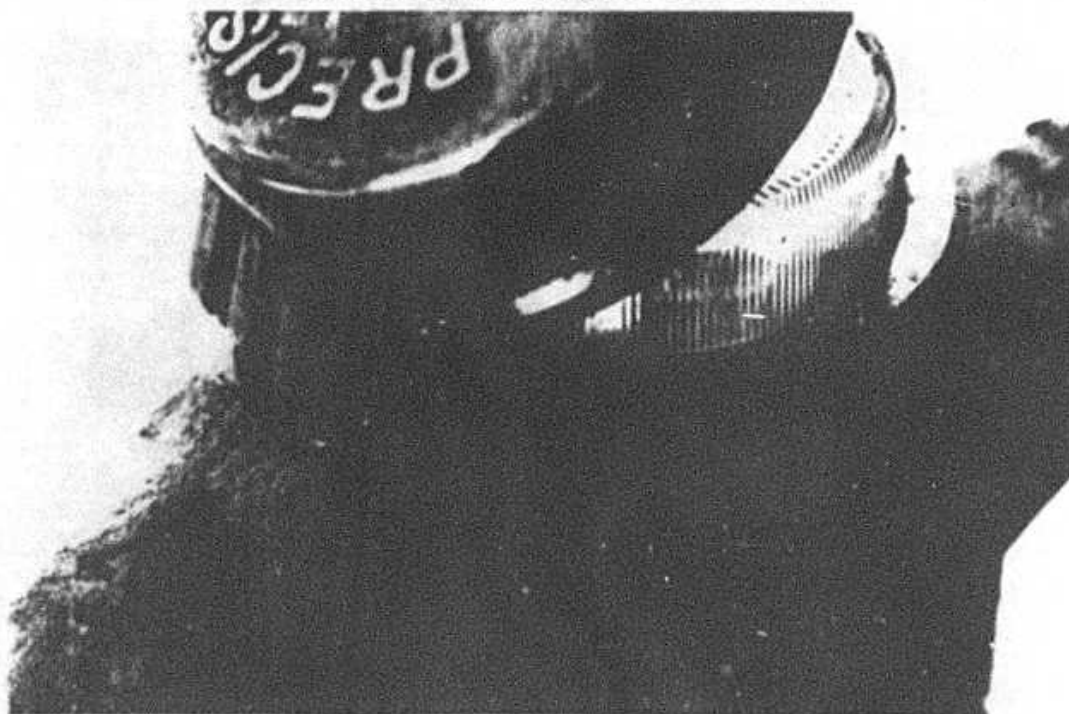


Photo # P-96-09-04  
Close-up of Tamper Seal Punctured

Photographs of Repair # 96021504

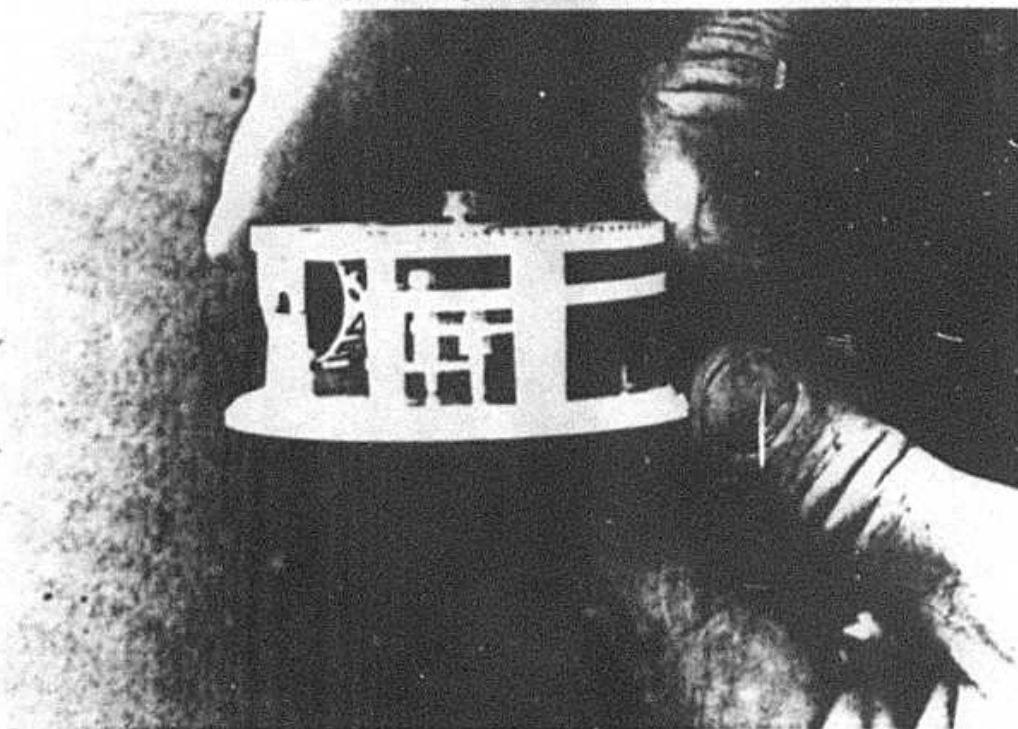


Photo # P-96-09-05  
Register with Loose Magnet Shield

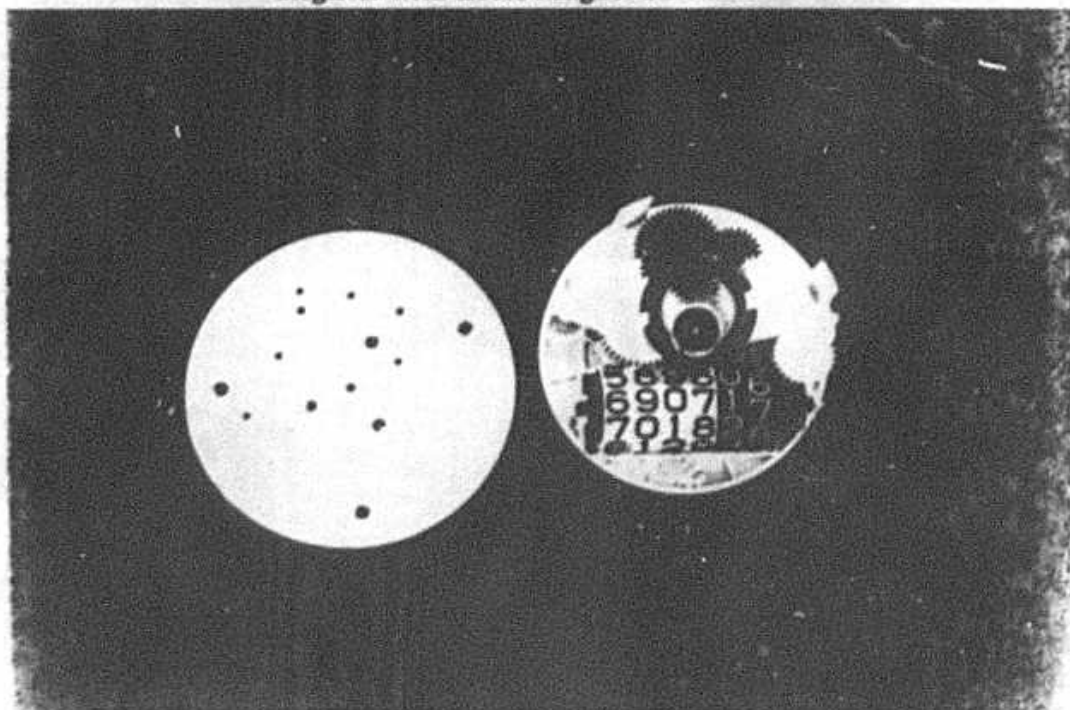
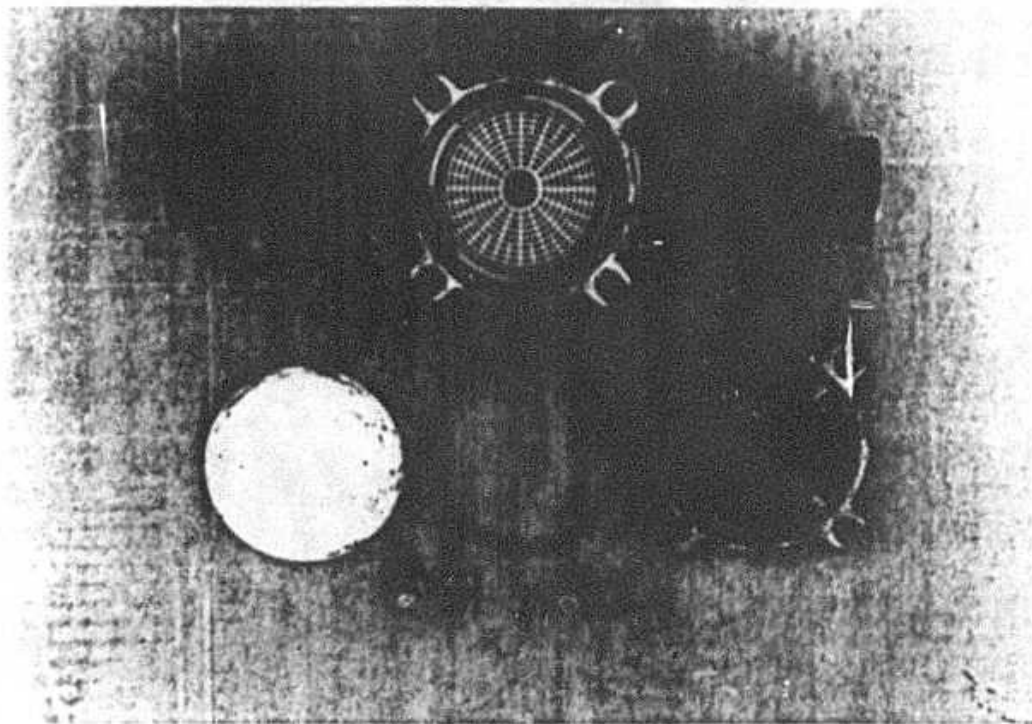
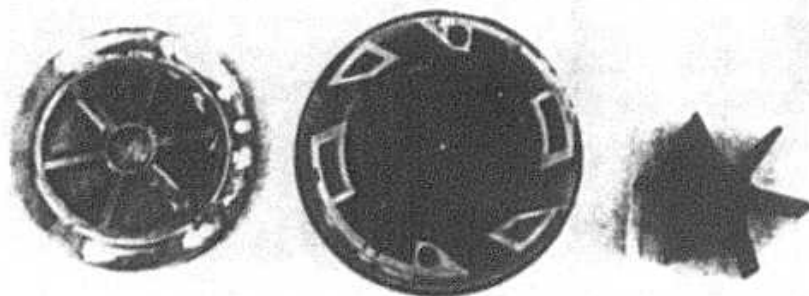


Photo # P-96-09-08  
Internal Parts of Register

**Photographs of Repair # 96021504**



**Photo # P-96-09-09  
Meter Bottom Plate Assembly & Strainer**



**Photo # P-96-09-10  
Measuring Chamber Parts**