Fish 1881

No. III.

U.S. Fish Commission and
Census of 1880. -

45

Statistics of Fisheries, Marine

Part of. -

Name of vessel

Rig.

Tonnage

Where built.

When built.

Original cost.

Present value.

; of fish,

No. of crew.

Nationality. American _____ Nova Scotian, _____
Swedish etc. _____ Irish. _____ French.
English _____ fath Portuguese, _____ Negro.

What fishery engaged in

Where fishing.

Deposition made of fish

Gross stock 18 -

Profits 18 -

Average share of crew.

No bbls mackerel, 187 (total)

No lbs other fish 18. - (total) No. within 3-mile line

Name of ~~the fish~~ master (No within 3-mile line)

Name of Agent or owner.

Name of person giving information.

Name of recorder.

REMARKS.

TEMPERATURE RECORD.

Instrument used,

Current number of observation,

Date,

Locality,

Bearings,

Time of day, ; of tide.

State of sky,

Temperature of air,

“ surface of water,

“ at depth of fathoms,

“ of bottom,

Depth, in fathoms,

Nature of bottom,

Direction of surface current,

Force of surface current,

Direction of bottom current,

Force of bottom current,

Name of vessel,

To what service attached,

Name and rank of commanding officer,

Name and position of observer,

REMARKS.

Haul 1030

R.-Dredge.

✓ *Synaphobranchus*

1

✓ *Scopelus*

2 + 3

TEMPERATURE RECORD.

Instrument used,

Current number of observation, 1030

Date, Sept. 14, 1881.

Locality.

Bearings. N. lat. $39^{\circ} 58' 30''$

W. lon. $69^{\circ} 15'$

Time of day, 1.52 P.M.; of tide,

State of sky, b. sky

Temperature of air, 65

" surface of water, 66

" at depth of 5 fathoms, 66

" of bottom, 41

Depth, in fathoms, 332

Nature of bottom, yellow mud

Direction of surface current,

Force of surface current,

Direction of bottom current,

Force of bottom current,

Name of vessel,

To what service attached,

Name and rank of commanding officer,

Name and position of observer,

REMARKS.

Haul 1031 Trawl tow.

Scopelus (? two species)	14
Cottunculus microps	3
Raia very young	1
Sebastes marinus	1
Phycis tenuis	1
" Chesteri	20
Macrurus Bairdii	7
Raia egg large (not kept)	1

TEMPERATURE RECORD.

Instrument used,

Current number of observation, 1031

Date, Sept. 14, 1881.

Locality,

Bearings, N. lat. $39^{\circ} 57'$
N. lon. $69^{\circ} 19'$

Time of day, 2.54 P.M.; of tide,

State of sky, foggy

Temperature of air, 64

" surface of water, 65-

" at depth of 5 fathoms, 63.5-

" of bottom, 255

Depth, in fathoms, 255

Nature of bottom, yellow mud

Direction of surface current,

Force of surface current,

Direction of bottom current,

Force of bottom current,

Name of vessel,

To what service attached,

Name and rank of commanding officer,

Name and position of observer,

REMARKS.

Haul 1032 Small beam trawl

✓	Macrurus	Bairdii	many
✓	"	carminatus	8
✓	Setarches	parvatus	5
✓	Phycis	Chestei	2/pails full
✓	Merluccius		19
✓	Lycodes	verillii ♀	1
	Rain	egg small	7
✓	Phycis	Chuss	13
✓	Scopelus		2
✓	Paralichthys	oblongus	1

TEMPERATURE RECORD.

Instrument used,

Current number of observation, 1032

Date, Sept 14 1887

Locality, N. lat. $39^{\circ} 56'$

Bearings, W. long. $69^{\circ} 22'$

Time of day, 4 P. M. ; of tide,

State of sky, Cloudy

Temperature of air, 65

" surface of water, 65

" at depth of 5 fathoms, 62.5

" of bottom, 46

Depth, in fathoms, 208

Nature of bottom, Yellow mud

Direction of surface current,

Force of surface current,

Direction of bottom current,

Force of bottom current,

Name of vessel,

To what service attached,

Name and rank of commanding officer,

Name and position of observer,

REMARKS.

Haul 1033

✓ <i>Scopelus</i>	not kept	2
✓ Dogfish	<i>lyallianus</i>	1
✓ <i>Paralichthys</i>	<i>oblongus</i>	4
✓ <i>Merluccius</i>		16
<i>Macrurus</i>	<i>Pomiridis</i>	
✓ <i>Macrurus</i>	<i>carminatus</i>	31
✓ <i>Phycis</i>	Chester's	3 + 51
✓ "	Chrus	14
✓ <i>Glyptocephalus</i>		1
<i>Raia</i>	juv.	1
✓ <i>Argyropelagus</i> ?	1 <u>lost</u> .	
✓ <i>Setarches</i>	<i>parmatius</i>	4

TEMPERATURE RECORD.

Instrument used, *Beam Trawl*

Current number of observation, *1033*

Date, *Sept 14 1887*

Locality,

Bearings, *N. lat. 39° 56'*

W. lon. 69° 24'

Time of day, *4.55 P.M.*; of tide,

State of sky, *b. c.*

Temperature of air, *66*

“ surface of water, *63*

“ at depth of *5* fathoms, *63*

“ of bottom,

Depth, in fathoms, *183*

Nature of bottom, *s. g.*

Direction of surface current,

Force of surface current,

Direction of bottom current,

Force of bottom current,

Name of vessel,

To what service attached,

Name and rank of commanding officer,

Name and position of observer,

REMARKS.

Haul 1034 Trawl fouled

Scopelus

1 + 2

TEMPERATURE RECORD.

Instrument used, _____

Current number of observation, 1034

Date, Sept. 14, 1881.

Locality, N. Lat. 39° 56'

Bearings, N. Lon. 69° 26'

Time of day, 5.55 P.M.; of tide, _____

State of sky, b. c.

Temperature of air, 66,

“ surface of water, 62

“ at depth of 5 fathoms, 60

“ of bottom, 46.5

Depth, in fathoms, 146

Nature of bottom, sand + yellow mud

Direction of surface current, _____

Force of surface current, _____

Direction of bottom current, _____

Force of bottom current, _____

Name of vessel, _____

To what service attached, _____

Name and rank of commanding officer, _____

Name and position of observer, _____

REMARKS.

Haul 1035

Lophius	ad	1
• Ophichthys ?		2
• Citharus ?	arc.	2
• Merluccius		4
• Phycis	chuss ?	27
• " "	tenula ?	9

TEMPERATURE RECORD.

Instrument used, *Beane Frawl*

Current number of observation, *1038-*

Date, *Sept. 14, 1887.*

Locality,

Bearings, *N. lat. 39° 57'*
W. lon. 69° 28'

Time of day, *6.56 P.M.*; of tide,

State of sky, *b. c.*

Temperature of air, *65*

" surface of water, *62*

" at depth of *15* fathoms, *60*

" of bottom, *47*

Depth, in fathoms, *120*

Nature of bottom, *sand*

Direction of surface current,

Force of surface current,

Direction of bottom current,

Force of bottom current,

Name of vessel,

To what service attached,

Name and rank of commanding officer,

Name and position of observer,

REMARKS.

Haul 1036 R. Dredge

Ophidiurus	juv.	1
Ophichthus ?	fragment	1

TEMPERATURE RECORD.

Instrument used, *Rake Dredge*
Current number of observation, *1036*
Date, *Sept. 14, 1881.*
Locality,
Bearings, *N. Lat. 39° 58'*
N. Lon. 69° 30'
Time of day, *7.54 P.M.*; of tide,
State of sky, *b. c.*
Temperature of air, *62*
" surface of water, *61.5*
" at depth of fathoms,
" of bottom, *57*
Depth, in fathoms, *94*
Nature of bottom, *Sand*
Direction of surface current,
Force of surface current,
Direction of bottom current,
Force of bottom current,
Name of vessel,
To what service attached,
Name and rank of commanding officer,
Name and position of observer,

REMARKS.

Haul 1037 ~~1037~~

~~Citharus californicus~~

~~+~~

TEMPERATURE RECORD.

Instrument used, *Trawl*

Current number of observation,

Date, *Sept. 15, 1881.*

Locality, *Off Roman's Land*

Bearings, *Gay Head N. by E. $3\frac{1}{4}$ E. 14 $\frac{1}{2}$ m.*

Time of day, *8 a. m.* ; of tide,

State of sky,

Temperature of air,

" surface of water,

" at depth of fathoms,

" of bottom,

Depth, in fathoms, *8*

Nature of bottom, *Sand (supposed wreck)*

Direction of surface current,

Force of surface current,

Direction of bottom current,

Force of bottom current,

Name of vessel,

To what service attached,

Name and rank of commanding officer,

Name and position of observer,

REMARKS.

Haul 1038

✓ <i>Myxine glutinosa</i>	3
✓ <i>Setarches parmatius</i>	5+17+23+3
✓ <i>Citharichthys arctif.</i>	juv 1+30
✓ <i>Raia laevis</i> ? juv.	3
✓ <i>Monolene seselicauda</i>	1
✓ <i>Glyptocephalus cynoglossus</i>	1
✓ <i>Paralichthys oblongus</i>	3
✓ <i>Merlucius bilinearis</i>	14
✓ <i>Phycis chuss</i>	1
✓ <i>Scopelus</i> 2 species	3
✓ <i>Raia eglanteria</i> ? juv.	4
✓ <i>Hippoglossoides</i> "	2
✓ <i>Calinectes</i> ? juv. at surface.	1
✓ <i>Hyphalonedrus chalybeius</i>	6+1
✓ <i>Macrurus carinatus</i>	1

Trawl-line :

✓ <i>Squalus acanthias</i> ♂	1
✓ <i>Phycis tenuis</i>	1
✓ <i>Merlucius</i>	2

TEMPERATURE RECORD.

Instrument used, *Trawl*

Current number of observation, *1038*

Date, *Sept. 21, 1881.*

Locality, *Off Martha's Vineyard.*

Bearings, *N. lat. 39° 58'*
W. lon. 70° 06'

Time of day, *0.55 a.m.*; of tide,

State of sky, *Hazy*

Temperature of air, *67*

" surface of water, *67*

" at depth of *5* fathoms, *68*

" of bottom, *47*

Depth, in fathoms, *146*

Nature of bottom, *S. & Sh.*

Direction of surface current,

Force of surface current,

Direction of bottom current,

Force of bottom current,

Name of vessel,

To what service attached,

Name and rank of commanding officer,

Name and position of observer,

REMARKS.

Haul 1039 fouled

Citharichthys arctifrons 1

Monacanthus at surface 6

TEMPERATURE RECORD.

Instrument used,

Current number of observation, 1039

Date, Sept. 21, 1881.

Locality, off Martha's Vineyard.

Bearings, N. Lat. $39^{\circ} 59'$

N. Lon. $70^{\circ} 06'$

Time of day, 9.35 A.M.; of tide,

State of sky, Hazy

Temperature of air, 66.30

" surface of water, 67

" at depth of 5 fathoms, 68

" of bottom, S.C.

Depth, in fathoms, 130 - 136

Nature of bottom, S. + sh.

Direction of surface current,

Force of surface current,

Direction of bottom current,

Force of bottom current,

Name of vessel,

To what service attached,

Name and rank of commanding officer,

Name and position of observer,

REMARKS.

Haul 1040 Ex-Dredge.

Glyptocephalus cynoglossus 2

TEMPERATURE RECORD.

Instrument used, *Excelsior Dredge.*

Current number of observation, *1040*

Date, *Sept. 21, 1887.*

Locality, *Off Martha's Vineyard*

Bearings, *N. lat. 40° 00'*
N. lon. 70° 06'

Time of day, *10.43 a.m.*; of tide,

State of sky, *hazy*

Temperature of air, *64*

" surface of water, *68*

" at depth of fathoms,

" of bottom, *66*

Depth, in fathoms, *93*

Nature of bottom, *s. + sh.*

Direction of surface current,

Force of surface current,

Direction of bottom current,

Force of bottom current,

Name of vessel,

To what service attached,

Name and rank of commanding officer,

Name and position of observer,

REMARKS.

Haul 1041

<i>Tautoglabrus</i>	2
<i>Centropomus atrarius</i> juv	3
<i>Stenotomus argyrops</i> "	12
<i>Prionotus carolinus</i> "	2
<i>Raja erinacea</i> egg	1

TEMPERATURE RECORD.

Instrument used.

Current number of observation. 1041

Date, Sept. 22, 1881.

Locality, Vineyard Sound

Bearings, West Chop Light
E $\frac{1}{2}$ N, $1\frac{3}{4}$ miles

Time of day, 12.33 P.M.; of tide,

State of sky, b. c.

Temperature of air, 63.3

" surface of water, 65

" at depth of 5 fathoms, 65

" of bottom, 65

Depth, in fathoms, 9

Nature of bottom, gr.

Direction of ~~surface current~~ ^{wind} S S W

Force of ~~surface current~~ ^{wind} 4

Direction of ~~bottom current~~ ^{drift} N. S. W. $\frac{3}{4}$ m.

Force of bottom current,

Name of vessel,

To what service attached,

Name and rank of commanding officer,

Name and position of observer,

REMARKS.

Haul 1042

<i>Raia erinacea</i>		2
<i>Stenotomus argyrops</i>	juv.	
<i>Centropristis atrarius</i>	"	
<i>Prionotus carolinus</i>	"	
<i>Tautoglabrus adspersus</i>	"	

TEMPERATURE RECORD.

Instrument used,

Current number of observation,

Date, *Sept. 22, 1881.*

Locality, ~~Off~~ *Vineyard Sound*

Bearings, *West Chop Light*

E. $\frac{1}{2}$ N. 1 $\frac{1}{2}$ miles

Time of day, *1.17 P.M.* ; of tide,

State of sky, *b. c.*

Temperature of air, *63.3*

" surface of water, *65*

" at depth of fathoms,

" of bottom, *65*

Depth, in fathoms, *6*

Nature of bottom, *s. gravel*

Direction of ~~surface current~~ *wind* *S S W*

Force of ~~surface current~~ *wind* *5*

Direction of ~~bottom current~~ *drift* *N. by N., $\frac{1}{2}$ m.*

Force of bottom current,

Name of vessel,

To what service attached,

Name and rank of commanding officer,

Name and position of observer,

REMARKS.

- ✓ *Brotulid*
- ✓ *Enchelyopus cimbrius*
- ✓ *Scyllium*
- ✓ *Phycis chuss*
- ✓ *Hyphalonedrus chalybeius*
- ✓ *Peristedium miniatum*
- ✓ *Merluccius bilinearis*
- ✓ *Scorpaena*

TEMPERATURE RECORD.

Instrument used, *Trawl.*

Current number of observation, *1043.*

Date, *Oct. 10, 1881.*

Locality, *Off Capes of Delaware.*

Bearings, *Lat. 38° 39' N.*

Long. 73° 11' W.

Time of day, *7.17 a.m.*; of tide,

State of sky, *partly cloudy.*

Temperature of air, *63.5*

" surface of water, *65.5*

" at depth of *5* fathoms. *65.5*

" of bottom, *149*

Depth, in fathoms, *130*

Nature of bottom, *sand*

Direction of ~~surface current~~, *wind N N E.*

Force of ~~surface current~~, " *4*

Direction of ~~bottom current~~, *drift N W. by N., 1 3/4 m.*

Force of bottom current,

Name of vessel,

To what service attached,

Name and rank of commanding officer,

Name and position of observer,

REMARKS.

✓ *Maurolicus*

(Surface)

✓ *Scopelus*

TEMPERATURE RECORD.

Instrument used, *Trawl.*

Current number of observation, *1044*

Date, *Oct. 10, 1881.*

Locality, *Off Capes of Delaware.*

Bearings. *Lat. 38° 37' N.*

Long. 73° 12' W.

Time of day, *8.15 A.M.*; of tide,

State of sky, *Cir. Cum.*

Temperature of air, *65*

" surface of water, *66*

" at depth of *5* fathoms. *66*

" of bottom, *42.5*

Depth, in fathoms, *224*

Nature of bottom, *gray mud.*

Direction of ~~surface current~~, *wind*, *NN.*

Force of ~~surface current~~, " *3*

Direction of ~~bottom current~~, *drift*, *NNN. 1/2 m.*

Force of bottom current,

Name of vessel,

To what service attached.

Name and rank of commanding officer,

Name and position of observer,

*Came up empty. Deepened to
300 fms.*

REMARKS.

- ✓ *Phycis tenuis* *Læmonema*
- ✓ *Phycis Chesteri*
- ✓ *Macrurus carminatus*
- ✓ " *Bairdii*
- ✓ *Scorpaëna*
- ✓ *Haliëntæa senticosa*
- ✓ *Hoplostethus*
- Phycis* *very young*
- ✓ *Glyptocephalus cynoglossus*

TEMPERATURE RECORD.

Instrument used, *Trawl.*
Current number of observation, *1045.*
Date, *Oct. 10, 1881.*
Locality, *Off Capes of Delaware.*
Bearings, *Lat. 38° 35' N,*
Lon. 73° 13' W,
Time of day, *9.32 A.M.*; of tide,
State of sky, *partly cloudy.*
Temperature of air, *67*
“ surface of water, *66*
“ at depth of *5* fathoms, *66*
“ of bottom, *40*
Depth, in fathoms, *312*
Nature of bottom, *gray mud.*
Direction of ~~surface current~~ *wind, N N W.*
Force of ~~surface current~~ “ *3*
Direction of ~~bottom current~~ *drift, W $\frac{3}{4}$ N, $\frac{3}{4}$ m.*
Force of bottom current,
Name of vessel,
To what service attached,
Name and rank of commanding officer,
Name and position of observer,

REMARKS.

- ✓ *Peristedium miniatum*
Phycis very young
- ✓ *Macrurus carminatus*

TEMPERATURE RECORD.

Instrument used, *Trawl,*

Current number of observation, *1046.*

Date, *Oct. 10, 1881.*

Locality, *Lat. 38° 33' N Off Cape of Del.*

Bearings, *Lat. 38° 33' N.*
Lon. 73° 18' W.

Time of day, *11.14 A.M.*; of tide,

State of sky, *Clear.*

Temperature of air, *66*

" surface of water, *66*

" at depth of *5* fathoms, *65*

" of bottom, *57.*

Depth, in fathoms, *104*

Nature of bottom, *sand*

Direction of ~~surface~~ current, *wind; N.*

Force of ~~surface~~ current, *" , 4*

Direction of ~~bottom~~ current, *drift, N N N, 3/4 m.*

Force of bottom current,

Name of vessel,

To what service attached,

Name and rank of commanding officer,

Name and position of observer,

REMARKS.

- ✓ *Peristedium miniatum*
- ✓ *Myxine glutinosa*
- ✓ *Scorpaena*
- ✓ *Merluccius bilinearis*
- ✓ *Hyphalonedrus chalybeius*
- ✓ *Raia* young
- ✓ *Citharichthys arctifrons*
- ✓ *Macrurus carminatus*
- ✓ *Glyptocephalus cynoglossus*

Living specimen of Dolium.

TEMPERATURE RECORD.

Instrument used, *Trawl*,
Current number of observation, *1047*,
Date, *Oct. 10, 1881*.
Locality, *Off Capes of Delaware*.
Bearings, *Lat. 38° 31' N.*
Lon. 73° 21' W.
Time of day, *12.15 P.M.*; of tide,
State of sky, *Clear*
Temperature of air, *69*
“ surface of water, *66*
“ at depth of *5* fathoms, *65*
“ of bottom, *49*
Depth, in fathoms, *156*
Nature of bottom, *Sand*
Direction of ~~surface current~~, *wind, N.*
Force of ~~surface current~~, “, *4*.
Direction of ~~bottom current~~, *drift, N.W., 1 1/2 m.*
Force of bottom current,
Name of vessel,
To what service attached,
Name and rank of commanding officer,
Name and position of observer,

REMARKS.

- ✓ *Nemichthys scolopaceus*
- ✓ *Stomias ferox*
- ✓ *Chauliodus sloanii*
- ✓ *Gonostoma denudata*

TEMPERATURE RECORD.

Instrument used, *Trawl*
 Current number of observation, *1048*
 Date, *Oct. 10, 1881.*
 Locality, *Off Capes of Delaware.*
 Bearings, *Lat. 38° 29' N.*
Lon. 73° 21' W.
 Time of day, *1.55 P.M.* of tide,
 State of sky, *Clear.*
 Temperature of air, *71.*
 " surface of water, *66*
 " at depth of *5* fathoms, *65*
 " of bottom, *40*
 Depth, in fathoms, *435*
 Nature of bottom, *Mud*
 Direction of ~~surface current~~ *wind, N.*
 Force of ~~surface current~~ *" , 4*
 Direction of ~~bottom current~~ *drift, N, 2 m.*
 Force of bottom current,
 Name of vessel,
 To what service attached,
 Name and rank of commanding officer,
 Name and position of observer,

REMARKS.

- ✓ *Simenichelys parasiticus*
- ✓ *Halieutaea senticosa*
- ✓ *Synaphobranchus pinnatus*
- ✓ *Nemichthys scolopaceus*
- ✓ *Lycodes Verrillii*
- ✓ *Cottunculus torvus*
- Lycodes* young
- ✓ *Cottunculus microps*
- ✓ *Macurus Bairdii*
- ✓ *Phycis Chesteri*
- ✓ *Merluccius bilinearis*
- ✓ *Lophius piscatorius*
- ✓ *Glyptocephalus cynoglossus*

TEMPERATURE RECORD.

Instrument used, *Trawl*

Current number of observation, *1049*

Date, *Oct. 10, 1881.*

Locality, *Off Capes of Delaware.*

Bearings, *Lat. 38° 28' N.*

Lon. 73° 22' W.

Time of day, *3.30 P.M.*; of tide,

State of sky, *Clear*

Temperature of air, *68*

" surface of water, *66*

" at depth of *5* fathoms, *66*

" of bottom, *40*

Depth, in fathoms, *435*

Nature of bottom, *Mud*

Direction of ~~surface current~~, *wind*, *N.*

Force of ~~surface current~~, " , *H.*

Direction of ~~bottom current~~, *drift*, *N.W., 2 m.*

Force of bottom current,

Name of vessel,

To what service attached,

Name and rank of commanding officer,

Name and position of observer,

REMARKS.

TEMPERATURE RECORD.

Instrument used,

Current number of observation,

Date,

Locality,

Bearings,

Time of day, ; of tide,

State of sky,

Temperature of air,

“ surface of water,

“ at depth of fathoms,

“ of bottom,

Depth, in fathoms,

Nature of bottom,

Direction of surface current,

Force of surface current,

Direction of bottom current,

Force of bottom current,

Name of vessel,

To what service attached,

Name and rank of commanding officer,

Name and position of observer,

REMARKS.

TEMPERATURE RECORD.

Instrument used, _____

Current number of observation, _____

Date, _____

Locality, _____

Bearings, _____

Time of day, _____ ; of tide, _____

State of sky, _____

Temperature of air, _____

“ _____ surface of water, _____

“ _____ at depth of _____ fathoms, _____

“ _____ of bottom. _____

Depth, in fathoms, _____

Nature of bottom, _____

Direction of surface current, _____

Force of surface current, _____

Direction of bottom current, _____

Force of bottom current, _____

Name of vessel, _____

To what service attached, _____

Name and rank of commanding officer, _____

Name and position of observer, _____

REMARKS.

TEMPERATURE RECORD.

Instrument used, _____

Current number of observation, _____

Date, _____

Locality, _____

Bearings, _____

Time of day, _____ ; of tide, _____

State of sky, _____

Temperature of air, _____

“ surface of water, _____

“ at depth of _____ fathoms, _____

“ of bottom, _____

Depth, in fathoms, _____

Nature of bottom, _____

Direction of surface current, _____

Force of surface current, _____

Direction of bottom current, _____

Force of bottom current, _____

Name of vessel, _____

To what service attached, _____

Name and rank of commanding officer, _____

Name and position of observer, _____

REMARKS.

TEMPERATURE RECORD.

Instrument used,

Current number of observation,

Date,

Locality,

Bearings,

Time of day, ; of tide.

State of sky,

Temperature of air,

“ surface of water,

“ at depth of fathoms.

“ of bottom.

Depth, in fathoms,

Nature of bottom,

Direction of surface current,

Force of surface current.

Direction of bottom current,

Force of bottom current,

Name of vessel,

To what service attached,

Name and rank of commanding officer,

Name and position of observer,

REMARKS.

TEMPERATURE RECORD.

Instrument used, _____

Current number of observation, _____

Date, _____

Locality, _____

Bearings, _____

Time of day, _____ ; of tide, _____

State of sky, _____

Temperature of air, _____

“ surface of water, _____

“ at depth of _____ fathoms, _____

“ of bottom, _____

Depth, in fathoms, _____

Nature of bottom, _____

Direction of surface current, _____

Force of surface current, _____

Direction of bottom current, _____

Force of bottom current, _____

Name of vessel, _____

To what service attached, _____

Name and rank of commanding officer, _____

Name and position of observer, _____

REMARKS.

TEMPERATURE RECORD.

Instrument used, _____

Current number of observation, _____

Date, _____

Locality, _____

Bearings, _____

Time of day, _____ ; of tide, _____

State of sky, _____

Temperature of air, _____

“ surface of water, _____

“ at depth of _____ fathoms. _____

“ of bottom, _____

Depth, in fathoms, _____

Nature of bottom, _____

Direction of surface current, _____

Force of surface current, _____

Direction of bottom current, _____

Force of bottom current, _____

Name of vessel, _____

To what service attached, _____

Name and rank of commanding officer, _____

Name and position of observer, _____

REMARKS.

TEMPERATURE RECORD.

Instrument used, _____

Current number of observation, _____

Date, _____

Locality, _____

Bearings, _____

Time of day, _____ ; of tide, _____

State of sky, _____

Temperature of air, _____

“ surface of water, _____

“ at depth of _____ fathoms, _____

“ of bottom, _____

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REMARKS.

IV Congress, at its last session, having passed an act (taking effect May 1, 1879,) "Official Postage Stamps," the Envelopes contained in this shipment are prepared after that date. Should it become necessary to use them *BEFORE THAT TIME* *MUST* be affixed.

271 Sep

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