

DREDGINGS OF THE FRENCH STEAMER TALISMAN, 1883.

The *Talisman* continued the researches carried on by the *Travailleur* in 1880-'82, and extended from the coast of Portugal along the west coast of Africa, touching at the Canaries, to about 17° N. latitude; thence westward to the Cape de Verde Islands; thence northwardly to latitude $31^{\circ} 34'$, longitude $41^{\circ} 15'$; thence northeasterly to the Azores, and thence back to France.

Dredgings by the French steamer *Talisman*, 1883.

Serial number.	Date.	North latitude.	West longitude, Greenwich.	West longitude, Paris.	Depth.	Depth.	Kind of bottom.	Temperatures.				Locality.
								Surface.	Bottom.	Surface.	Bottom.	
								° F.	° F.	° C.	° C.	
1	June 4	41 30	9 37	11 57	1,051	1,923	Mud	62.6	41.0	17.0	5.0	Coast of Portugal.
2	June 6	36 53	8 32	10 52	54	99	Mud, shells	63.5	59.9	17.5	15.5	Bay of Cadiz.
3	June 6	36 53	8 28	10 48	58	106	do	63.5	61.7	17.5	16.5	Do.
4	June 6	36 53	8 24	10 44	64	118	do	63.5	59.9	17.5	15.5	Do.
5	June 9	36 26	6 27	8 47	33	60	do					Do.
6	June 9	36 21	6 41	9 01	69	126	do					South of Bay of Cadiz.
7	June 9	36 19	6 44	9 04	95	174	Mud					Do.
8	June 10	35 35	6 40	9 00	295	540	do					Cape Spartel.
9	June 10	35 31	6 43	9 03	340	622	do					Do.
10	June 10	35 26	6 49	9 09	392	717	do	69.4	53.6	20.8	12.0	Do.
11	June 10	35 21	7 05	9 25	593	1,084	Mud, corals	69.4	50.9	20.8	10.5	Do.
12	June 11	35 11	7 11	9 31	524	938	Mud	71.6	50.0	22.0	10.0	Coast of Morocco, from Cape Spartel to Cape Blanco.
13	June 11	35 07	7 18	9 38	765	1,216	Mud, corals	71.6	50.0	22.0	10.0	Do.
14	June 12	34 20	8 08	10 28	1,373	2,516	Mud	69.8	39.2	21.0	4.0	Do.
15	June 12	33 57	8 27	10 47	779	1,425	do	68.9	45.5	20.5	7.5	Do.
16	June 13	34 01	8 32	10 52	1,198	2,190	do	71.6	40.1	22.0	4.5	Do.
17	June 14	33 33	8 59	11 19	301	550	do	66.2	55.4	19.0	13.0	Do.
18	June 14	33 33	8 59	11 19	301	550	do	66.2	55.4	19.0	13.0	Do.
19	June 14	33 42	9 01	11 21	503	920	Mud, sponges	70.7	50.0	21.5	10.0	Do.
20	June 14	33 43	9 02	11 22	604	1,105	do	70.7	43.7	21.5	6.5	Do.
21	June 14	33 46	9 02	11 22	721	1,319	Mud	67.1	46.4	19.5	8.0	Do.
22	June 14	33 47	9 03	11 23	894	1,635	do	67.1	43.7	19.5	6.5	Do.
23	June 15	33 16	8 53	11 13	66	120	Rocks, shells					Do.
24	June 15	33 14	8 54	11 14	66	120	Shells, sand					Do.
25	June 15	33 14	9 18	11 38	224	410	Sand, mud					Coast of Morocco, from Cape Blanco to Mogador.
26	June 15	33 08	9 23	11 43	395	723	Mud					Do.
27	June 15	33 10	9 29	11 49	766	1,400	do					Do.
28	June 15	33 12	9 33	11 53	1,094	2,000	do					Do.
29	June 16	32 46	9 56	12 16	1,422	2,600	do	68.9	38.3	20.5	3.5	Do.
30	June 16	32 44	9 56	12 16	1,312	2,400	do	76.1	38.3	24.5	3.5	Do.
31	June 16	32 40	9 50	12 10	1,048	1,917	do					Do.
32	June 16	32 38	9 49	12 09	797	1,435	do					Do.
33	June 17	32 34	9 49	12 09	869	1,590	Greasy mud					Do.
34	June 17	32 31	9 46	12 08	738	1,350	Reddish mud					Do.
35	June 17	32 29	9 47	12 07	455	834	Mud	68.0	51.8	20.0	11.0	Do.
36	June 17	32 27	9 55	12 15	614	1,123	Ret mud					Do.
36	June 18	32 04	10 23	12 43	1,151	2,105	Mud					Do.

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								Surface.	Bottom.	Surface.	Bottom.	
36	June 18	31 59	10 09	12 29	Fathoms. 573	Meters. 1,048	Mud.....					Coast of Morocco, from Cape Blanco to Mogador.
37	June 21	31 34	10 21	12 41	499	912	Red mud.....					Do.
38	June 21	31 31	10 27	12 47	574	1,050	...do.....					Do.
39	June 22	30 42	11 19	13 39	1,371	2,525	Red and yellow mud.....					Mogador to Canaries.
40	June 22	30 41	11 17	13 37	1,512	2,765	Red mud.....					Do.
41	June 23	30 09	11 41	14 01	1,209	2,210	Mud.....	71.6	39.2	22.0	4.0	Do.
42	June 23	30 08	11 42	14 02	1,203	2,200	Greasy mud.....					Do.
43	June 23	30 08	11 45	14 05	1,203	2,200	...do.....	70.7	39.2	21.5	4.0	Do.
44	June 24	30 03	11 42	14 02	1,210	2,212	Gray mud, broken shells.....	65.7	41.0	18.7	5.0	Do.
45	June 24	30 01	11 46	14 06	1,137	2,115	...do.....					Do.
46	June 25	29 58	11 41	14 01	1,151	2,104	...do.....					Do.
47	June 25	29 52	11 44	14 04	1,135	2,075	...do.....	67.1	41.0	19.5	5.0	Do.
48	June 25	29 52	11 47	14 07	1,139	2,083	...do.....					Do.
49	June 26	29 08	12 26	14 46	676	1,235	Soft yellow mud.....	68.5	47.3	20.3	8.5	Do.
50	June 26	29 03	12 28	14 48	667	1,220	Yellow mud.....	71.6	46.4	22.0	8.0	Do.
51	June 26	29 02	12 29	14 49	636	1,163	Mud.....	70.7	47.7	21.5	8.7	Do.
52	June 26	29 01	12 31	14 51	615	1,180	...do.....	70.7	47.3	21.5	8.5	Do.
53	June 27	28 37	13 02	15 22	473	865	Yellow mud.....	69.8	44.6	21.0	7.0	Do.
54	June 27	28 35	13 10	15 30	533	975	...do.....	70.2	45.0	21.2	7.2	Do.
55	June 27	28 35	13 16	15 36	677	1,238	...do.....	72.5	45.0	22.5	7.2	Do.
56	June 27	28 33	13 19	15 39	518	946	Sand, black specks, rocks.....					Do.
57	June 27	28 35	13 19	15 39	497	905	Pebbles and rocks.....	72.5	46.4	22.5	8.0	Do.
58	June 28	28 48	13 46	16 06	19-142	30-259	Sand, shells, pebbles.....					Canary Islands.
59	.....	28 49	13 53	16 13	88	162	Sand and rocks.....					Do.
60	.....	28 48	14 01	16 21	495-678	906-1,240	Muddy sand, rocks.....					Do.
61	July 7	27 35	14 15	16 35	1,034-1,102	2,000-2,015	Yellow mud.....	73.4	38.3	23.0	3.5	From Canaries to mouth of Senegal, near coast of Africa.
62	July 7	27 32	14 09	16 29	1,101	2,013	...do.....	73.0	39.2	22.8	4.0	Do.
63	July 7	27 31	14 08	16 28	1,089	1,975	...do.....	73.0	39.4	22.8	4.1	Do.
64	July 7	27 31	14 07	16 27	1,049	1,918	...do.....	73.0	39.4	22.8	4.1	Do.
65	July 8	26 20	14 53	17 13	421	782	Sand, shells, corals.....					Do.
66	July 8	26 18	14 52	17 12	350	640	Sand, corals.....	70.7	49.1	21.5	9.5	Do.
67	July 8	26 17	14 51	17 11	194	355	Sand, shells, corals.....					Do.
68	July 8	26 16	14 51	17 11	136	250	...do.....					Do.
69	July 8	26 13	14 50	17 10	96	175	...do.....					Do.
70	July 8	26 07	14 48	17 08	71	130	...do.....					Do.
71	July 8	26 04	14 45	17 05	56	102	...do.....					Do.
72	July 9	25 41	15 50	18 18	224	410	Muddy sand, corals.....					Do.
73	July 9	25 39	15 58	18 18	382	693	Muddy sand, corals, shells.....					Do.

74	July	9	25 30	15 53	18 18	350	640	do	.....	.....	.....	.....	.....	Do.
75	July	9	25 30	16 02	18 22	492	882	do	.....	.....	.....	.....	.....	Do.
76	July	9	25 29	16 06	18 26	785	1,435	do	.....	.....	.....	.....	.....	Do.
77	July	9	25 38	16 09	18 29	617	1,128	Gray mud	.....	.....	.....	.....	.....	Do.
77	July	9	25 38	16 11	18 31	650	1,193	do	.....	70.7	44.2	21.5	6.8	Do.
78	July	10	25 02	16 51	19 11	1,271	2,325	Yellow mud	.....	72.5	38.3	22.5	3.5	Do.
78	July	10	25 01	16 53	19 13	1,377	2,518	Gray mud	.....	72.5	37.8	22.5	3.2	Do.
79	July	10	25 01	16 55	19 15	1,443	2,638	Yellow mud	.....	70.2	37.0	21.2	2.8	Do.
80	July	10	25 00	17 00	19 20	1,484	2,713	do	.....	69.8	36.5	21.0	2.5	Do.
81	July	11	23 57	17 12	19 32	766	1,400	do	.....	68.9	41.4	20.5	5.2	Do.
81	July	11	23 55	17 15	19 35	785	1,435	Gray mud	.....	68.9	41.7	20.5	5.4	Do.
82	July	11	23 53	17 16	19 36	674	1,232	do	.....	69.8	42.4	21.0	5.8	Do.
83	July	11	23 52	17 17	19 37	684	1,250	do	.....	71.6	42.8	22.0	6.0	Do.
84	July	11	23 50	17 17	19 37	623	1,139	do	.....	72.5	43.2	22.5	6.2	Do.
85	July	12	23 00	17 30	19 50	510	932	Greenish muddy sand	.....	70.7	44.6	21.5	7.0	Do.
86	July	12	22 57	17 31	19 51	508	930	Green, muddy sand	.....	70.7	44.2	21.5	6.8	Do.
86	July	12	22 55	17 29	19 49	508	950	do	.....	70.2	44.6	21.2	7.0	Do.
87	July	12	22 54	17 26	19 46	470	890	do	.....	68.9	45.5	20.5	7.5	Do.
88	July	12	22 62	17 23	19 43	454	830	do	.....	68.9	45.5	20.5	7.5	Do.
89	July	12	22 49	17 21	19 41	438	800	do	.....	68.9	46.4	20.5	8.0	Do.
90	July	13	22 03	17 33	19 53	554	1,013	Greenish, muddy sand	.....	69.8	44.6	21.0	7.0	Do.
90	July	13	21 59	17 36	19 56	609	1,113	do	.....	69.8	42.8	21.0	6.0	Do.
91	July	13	21 58	17 32	19 52	486	888	do	.....	69.8	44.6	21.0	7.0	Do.
92	July	13	21 53	17 30	19 50	358	655	do	.....	71.6	48.2	22.0	9.0	Do.
93	July	13	21 51	17 28	19 48	98	175	do	.....	71.6	49.0	22.0	15.0	Do.
94	July	13	21 51	17 28	19 48	139	235	do	.....	.....	.....	.....	.....	Do.
95	July	13	21 47	17 27	19 47	76	140	do	.....	.....	.....	.....	.....	Do.
96	July	14	20 41	18 07	20 27	817	1,485	do	.....	68.9	40.1	20.5	4.5	Do.
96	July	14	20 41	18 06	20 28	702	1,283	do	.....	69.8	41.9	21.0	5.5	Do.
97	July	14	20 39	18 09	20 29	696	1,090	do	.....	70.7	42.8	21.5	6.0	Do.
98	July	14	20 38	18 19	20 39	673	1,230	do	.....	.....	.....	.....	.....	Do.
98	July	14	20 32	18 20	20 40	634	1,160	do	.....	.....	.....	.....	.....	Do.
99	July	15	19 19	18 02	20 22	1,276	2,333	Greenish, greasy mud	.....	71.2	37.4	21.8	3.0	Do.
99	July	15	19 16	18 00	20 20	1,269	2,320	do	.....	71.2	37.0	21.8	2.8	Do.
100	July	15	19 12	17 57	20 17	1,271	2,324	do	.....	70.7	38.1	21.5	3.4	Do.
101	July	15	19 12	17 57	20 17	1,271	2,324	do	.....	.....	.....	.....	.....	Do.
101	July	16	18 25	17 59	20 19	1,467	2,683	Gray mud	.....	73.4	37.0	23.0	2.8	Do.
102	July	17	17 15	17 07	19 27	858	1,570	Slaty clay	.....	.....	.....	.....	.....	Do.
103	July	17	17 12	17 07	19 27	884	1,617	Greenish mud	.....	.....	.....	.....	.....	Do.
104	July	17	17 16	16 59	19 19	848	1,550	do	.....	.....	.....	.....	.....	Do.
105	July	18	16 38	18 21	20 44	1,750	3,200	Gray mud	.....	.....	.....	.....	.....	Do.
106	July	19	15 48	20 23	22 43	1,999	3,655	do	.....	73.4	36.1	23.0	2.3	Between coast of Africa and Cape Verde Islands.
107	July	23				123	225	Sand, rocks	.....	.....	.....	.....	.....	Do.
108	July	23				57	105	Rocks	.....	.....	.....	.....	.....	Among the Cape Verde Islands.
109	July	23				67-155	123-233	Sand, rocks	.....	.....	.....	.....	.....	Do.
110	July	23				41	80	do	.....	.....	.....	.....	.....	Do.
111	July	24	16 13	24 37	26 57	2,026	3,705	Greasy mud	.....	.....	.....	.....	.....	Between Santiago and St. Vincent.
112	July	25				14- 19	25- 35	Mud and corallines	.....	.....	.....	.....	.....	Among the Cape Verde Islands.
113	July	27				44- 60	60-110	Sand, rocks	.....	.....	.....	.....	.....	Do.
114	July	28				16- 41	30- 75	Sand, shells	.....	.....	.....	.....	.....	Do.
115	July	29				41- 49	75- 90	do	Do.

Dredgings by the French steamer *Talisman*, 1883—Continued.

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								Surface.	Bottom.	Surface.	Bottom.		
								° F.	° F.	° C.	° C.		
116	July 29	16 53	25 10	27 30	224-262	410-460	Sand, gravel						Among the Cape Verde Islands.
117	July 29	16 52	25 10	27 30	219	400	do						Do.
117	July 29	16 53	25 06	27 26	317	589	do						Do.
118	July 30	16 55	25 07	27 27	190	347	Sand, rocks						Do.
118	July 30	16 51	25 09	27 29	221	405	Rocks						Do.
119	July 30	16 52	25 10	27 30	261	550	Sand	75.2	52.7	24.0	11.5		Do.
119	July 30	16 52	25 12	27 32	416	760	Sand, gravel	75.2	50.0	24.0	10.0		Do.
120	July 30	16 53	25 12	27 32	338	618	Muddy sand						Do.
121	July 30	16 51	25 10	27 30	346	633	do						Do.
121	July 30	16 52	25 12	27 32	327	598	Sand, rocks	74.3	50.0	23.5	10.0		Do.
122	July 30	18 37	25 10	27 30	2,469	4,115	Yellow mud	74.3	37.2	23.5	2.9		North of Cape Verde Islands.
123	Aug. 7	30 17	40 47	43 07	1,050	3,530	Powdered punice	76.1	37.4	24.5	3.0		In Sargasso Sea.
124	Aug. 8	31 34	41 15	43 35	1,700	3,125	do	73.4	34.7	23.0	1.5		Do.
125	Aug. 9	33 19	35 44	38 04	1,877	3,432	do	77.4	35.8	25.2	2.1		Do.
126	Aug. 10	34 46	33 51	36 11	1,738	3,175	do	76.3	38.1	24.0	3.4		Southwest of Azores.
127	Aug. 11	36 11	32 01	34 21	1,201	2,195	Sand, rocks, hard ground	74.3	39.2	23.5	4.0		Do.
127	Aug. 11	36 12	31 54	34 14	1,527	2,792	do	75.2	38.3	24.0	3.5		Do.
128	Aug. 11	36 12	31 54	34 14	1,527	2,792	do						Do.
128	Aug. 11	36 13	31 47	34 07	1,597	2,921	do	75.2	38.8	24.0	3.8		Do.
129	Aug. 11	36 14	31 40	34 00	1,574	2,878	do	76.3	38.3	24.6	3.5		Do.
130	Aug. 12	37 35	29 26	31 46	789	1,442	Gray mud	72.5	44.6	22.5	7.0		Do.
131	Aug. 12	37 35	29 26	31 46	787	1,440	do						Do.
132	Aug. 13	38 23	28 50	31 10	306	560	Sand, gravel	73.4	54.5	23.0	12.5		Azores Islands.
133	Aug. 13	38 25	28 44	31 04	344	629	Sand, rocks						Do.
134	Aug. 13	38 25	28 44	31 04	344	629	Sand, gravel						Do.
135	Aug. 13	Between Fayal and Pico			41-63	80-115	do						Do.
136	Aug. 13				44-104	80-190	do						
137	Aug. 15	38 37	28 21	30 41	688	1,258	Gray mud	73.4	52.7	23.0	11.5		Do.
138	Aug. 15	38 38	28 20	30 40	666	1,221	do	73.0	52.7	22.8	11.5		Do.
139	Aug. 15	38 38	28 21	30 41	687	1,157	do	72.5	52.7	22.5	11.5		Do.
140	Aug. 15	38 39	28 21	30 41	666	1,255	do						Do.
141	Aug. 16	38 07	27 12	29 32	538	883	Sand, shells, Globigerina	72.5	48.2	22.5	9.0		Do.
142	Aug. 16	38 00	27 13	29 33	1,214	2,220	Soft gray mud						Do.
142	Aug. 16	38 00	27 05	29 25	1,179	2,155	do	73.4	39.2	23.0	4.0		Do.
143	Aug. 16	37 55	27 02	29 22	1,222	2,235	do						Do.
144	Aug. 22	38 38	25 06	27 26	1,638	2,935	Soft, white mud	73.4	38.1	23.0	3.1		North of St. Michael.
145	Aug. 23	40 35	23 34	25 54	2,414	4,415	do						From Azores to France.
146	Aug. 24	42 15	21 17	23 37	2,174	3,975	do	69.8	37.4	21.0	3.0		Do.
147	Aug. 24	42 19	21 16	23 36	2,220	4,060	do	70.7	37.4	21.5	3.0		Do.

148	Aug. 24	42 23	21 15	23 35	2,193	4,010	do	71.6	37.2	22.0	2.9	Do.
149	Aug. 25	43 15	19 20	21 40	2,278	4,165	do	67.1	37.4	19.5	3.0	Do.
150	Aug. 26	44 20	17 11	19 31	2,327	4,255	do	69.8	37.4	21.0	3.0	Do.
151	Aug. 27	44 41	13 31	15 51	2,078	3,800	do	70.7	36.9	21.5	2.7	Do.
152	Aug. 27	44 29	13 32	15 52	2,721	4,975	Whitish mud					Do.
152	Aug. 27	44 21	13 33	15 53	2,737	5,005	do	68.0	37.0	20.5	2.8	Do.
153	Aug. 29	46 09	6 58	9 16	2,618	4,787	Yellowish, gray mud					Do.
154	Aug. 29	46 06	6 50	9 10	2,619	4,789	A thin lower bed of whitish tint					Do.
155	Aug. 30	46 04	4 26	6 46	1,250	2,285	Mud, clay					Bay of Biscay.
156	Aug. 30	45 59	4 09	6 29	809	1,480	Coral					Do.