Notes on Ripples in Bathwater, Snoring, an Odarium and Other Material

Publication/Creation

19th Century

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f 1r

may under appropriate conditions, give rise to peculiar ripple marks.

~~It may not be thought out of place if~~ I may mention an exceedingly beautiful movement of water which I see and admire ~~in the morning~~ before entering my ~~morning~~ bath, ~~whenever~~ ~~should~~ Every morning when the sun is shining, ~~and~~ ~~so~~ to show it. The bath is prepared with ~~over~~ hot water ~~of~~ about 110 Fahr, & to the depth of a foot. I ~~then~~ cool it down by turning a cock above ~~near the~~ foot, ~~which is towards the sun,~~ letting ~~cold~~ in water of about 60° ~~to cool it~~. The colder water produces a most curious & complicated system of wrinkles at the bottom of the bath, which creep ~~along the bottom~~ forward at the rate of about one inch in a second. They overlap and intertwine ~~mingle~~, without ~~but never~~ fusing together, and they recurve on arrival at the head of the bath, ~~this~~ I can compare them ~~appearance is not that~~ on their first arrival in view only to a mass of animated & luminous vermicelli, ~~&~~ the thickness of each wrinkle being hardly one eighth of an inch. They are clearly vortex rings of remarkable tenacity, and of at least 5 feet in their longest diameter. They ought to appear ~~be found~~ wherever a ~~warmed water, say of 70, drops into a~~ ~~pool of~~ glacier-chilled (stream drops in a shallow) pool warmed by the summer sun. There ought ~~to be no~~ difficulty in ~~demonstrating this on~~ exhibiting this very interesting effect on a small scale in a laboratory, ~~in~~ by photographing ~~the result of~~ the surface ripples ~~were~~ to have been checked by ~~a~~ a plate of glass placed horizontally ~~about the level of the~~ just above the overflow. ~~[illegible]~~

(Finally the broader and deeper shallows not because shallow a fake away.)

Veuillez agréer, Monsieur, l'assurance de f1v
ma considération la plus parfaite.

Le Président
de l'Office Impérial de Statistique de l'Empire d'Allemagne.

van der Borght

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In Mr. Cowpers plan carriages from the East of B travel ba+bc = 865 yards against bc = 138 yards the plan of the Committee
or an ~~additional~~ unnecessary detour of 865 − 138 = 727

Road across Hyde Park

West of A travel ac = 445 yds against ab+bc = 558 yds
or a detour of 113.

the population East of B suffer unduly by 727 − 113 = 614 yards. & they are far the larger population being the whole of the Brompton.

XI.21.

	Mr. Cowpers plan	Committee's plan	B	favor & Deviation of [illegible]	of Coins
Carriages & cabs from the west of A	445		420 + 138 = 558	113	
East of B	420+445 = 865		138	727	

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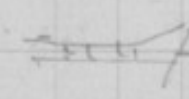
Hyde Park

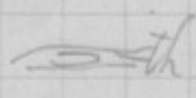
ftr

Mouth reading

f1

a f h





o th

u like but broaden cheek & wlng W.

er

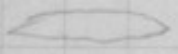
ee very like s — a z

cast sea

tongue t & d

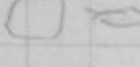
aoo

ai = i m p b alike



o n t d alike

oy oe boy k see root of tongue neck & jaw drop



ew q = kew

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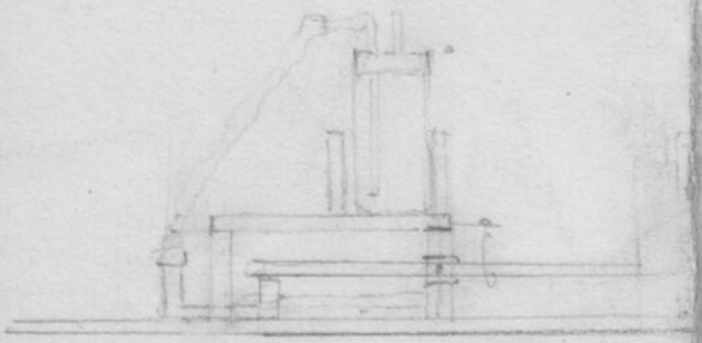

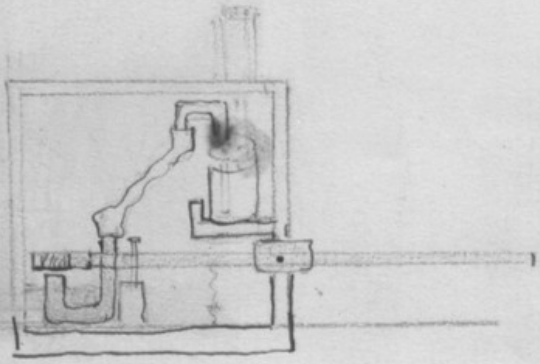

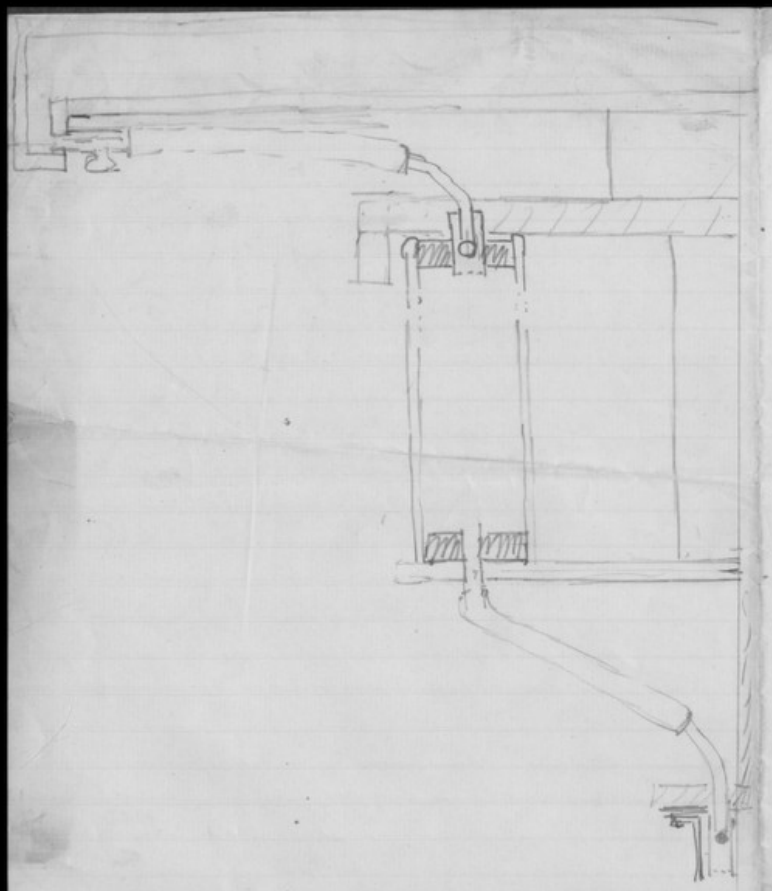

f2

Odorum

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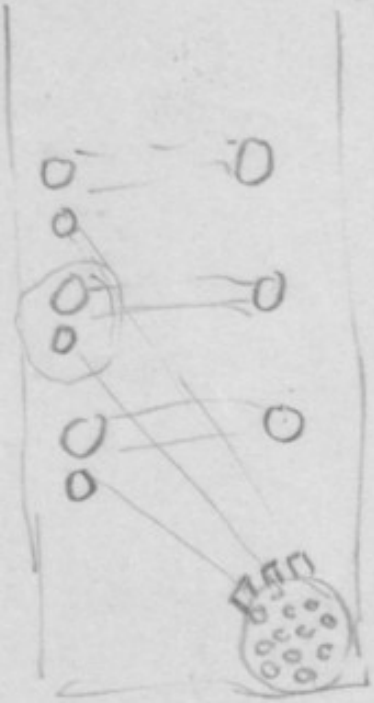
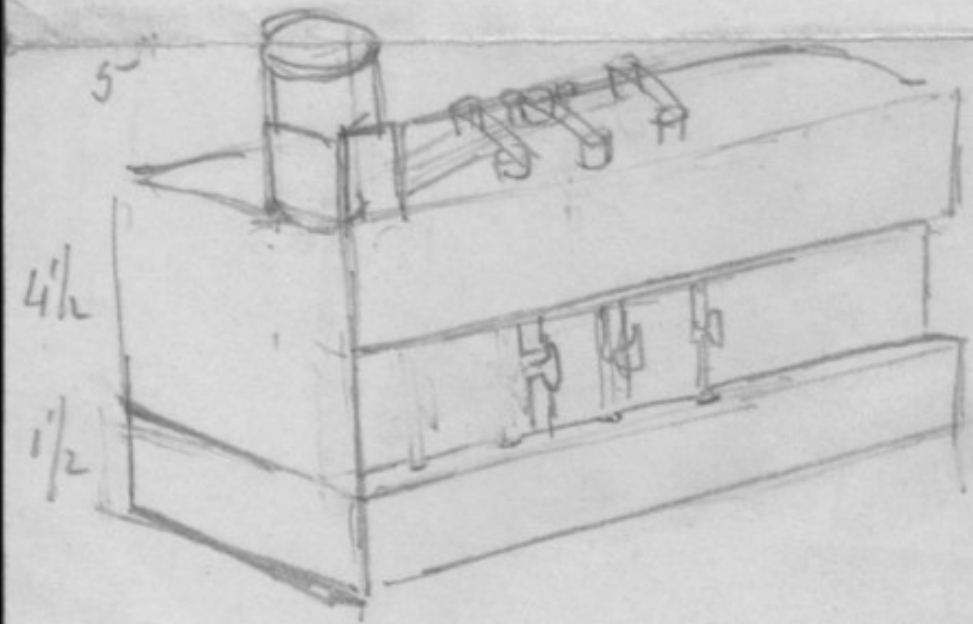
f.2

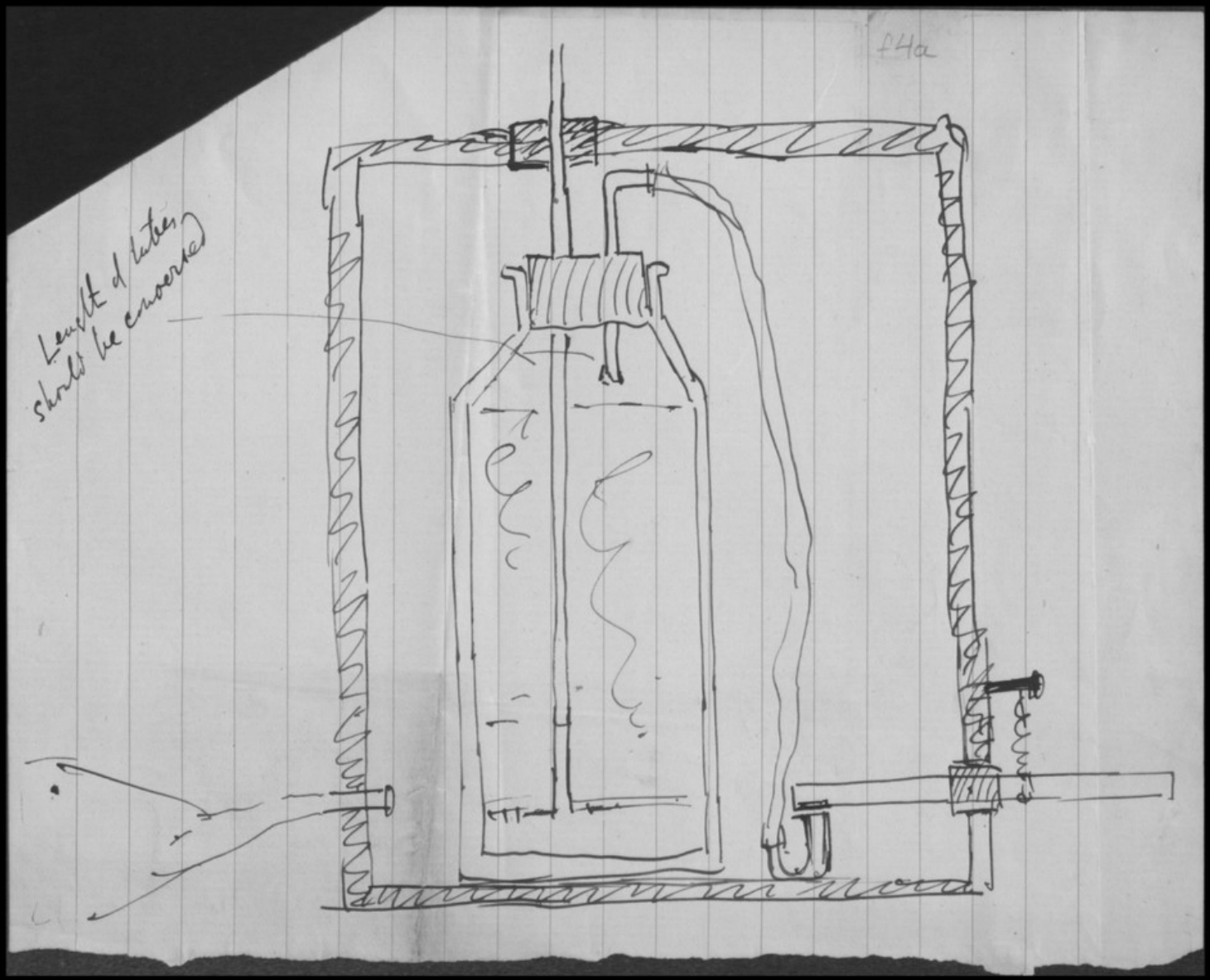
f. 3



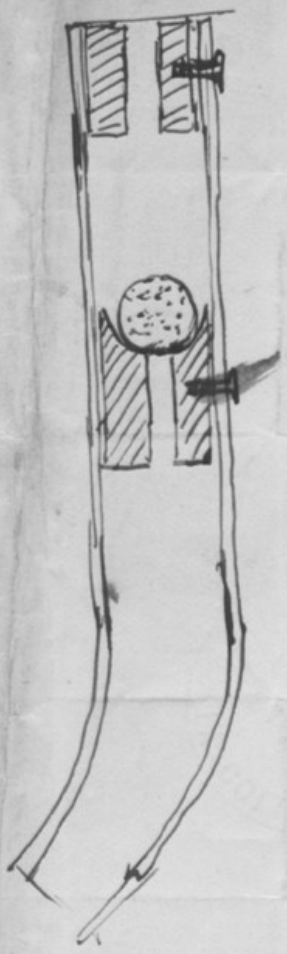


f4a

Level of tubes should be observed



f.4b



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The Philosophy of Snoring f1

Married ladies have ~~[illegible]~~ remarked that husbands, past the age of 50 or 60 are apt to snore. I have ~~some~~ enough reason to believe in the correctness of this generalisation to assume it to be true & to ask the reason of it. More generally what is the cause of snoring? I have not found this interesting & ~~[illegible]~~ domestically important topic treated anywhere in a scientific manner. ~~[illegible]~~ ~~[illegible]~~ I have only my own a few idiom obs of my own ~~to make~~ way of the scientist & mention them merely to elicit those of others. First I have been surprised at the silent sleep of men in bivouac ~~For many months in the company of natives I have passed the night for months in the middle of [illegible] & am~~ their breathing ~~[illegible]~~ of some 30 or 40 men mostly savages of whom I had many months experience in travel was inaudible. Conversely hot bedrooms stimulate snoring. Again a deep sleep is more accompanied by snoring than a lightsome Ophiuchala droops more. It is analogous to the fallen jaw of death. Lastly the mucus of the throat becomes more ~~copious~~ & tenacious and more copious as life advances, ~~and~~ consequently ~~asthma~~ bronchitis then ~~the~~ begins to have be dangerous.

I suppose that snoring is generally due to the concurrence of two causes: to the drooping of the soft palate & to the presence of mucus, such & of a tenacious kind. mucus in old age drooping in hot bedrooms also in deep sleep.

Eit

~~Private. Being now abroad, I send this to the hands of a friend to forward to what he considers the most appropriate journal. Francis Galton (Dec. 1885)~~

From FRANCIS GALTON, 42, RUTLAND GATE, LONDON, S.W.

Arrangement of Trees in an Orchard

f15

Having noticed that trees are usually planted in orchards in parallel rows, separated by the same distances that trees in the same row are separated from one another, I have asked whether the economy of space was recognised of planting them hexagonally. It appears to be so imperfectly appreciated, that it may be proper, even for myself who am no agriculturist, to call attention to the geometry of the case. The solution I send is based on the supposition that each tree requires a free circular area of some appropriate diameter, to avoid crowding and being crowded by its neighbours with roots and branches, and that unused corners around this space are wasted land. The problem then comes to the same thing as the economy of space in arranging flower pots of the same size, in parallel rows as above described, or in the compactest manner possible. In the former case each pot occupies the middle of an imaginary square and touches four neighbours, In the latter case it occupies the middle of an imaginary hexagon and touches six neighbours. It may be easily proved that between 115 & 116 flower pots can be arranged on the hexagonal system upon the same area that will only contain 100 pots on the square system. Simple mathematics show that the area of a square circumscribed round a circle whose radius is 1, is equal to 4 square units, & that the area of a hexagon round the same circle is $6 \times \tan 30$, or 3.46 square units. The number of such hexagons required to fill a ~~given~~ field of given area, to that of the squares, is the inverse ratio of this, namely as 400 to 346, which is that of between 115 and 116 to 100. It follows that if the preliminary supposition be strictly correct, a profit of between 15 and 16 per cent would be made by planting orchard trees on the hexagonal, instead of on the square system.

Francis Galton

f1v

C.

To the Editor

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21/6/16

f1

Osmoluter

One that letteth out

smells

λύτηρ a letter out,

deliverer,

180
f25

STATION, SUTTON BINGHAM, L. & S.W.R.

TELEGRAMS, NORTH COKER.

COKER COURT,
YEOVIL.

Dec 1.

My dear Galton.

I came here today. My wife having come last night.

W. E. Hall went into his bathroom yesterday, not coming out, they finally broke the door & found him in apoplexy

He never regained
consciousness & died
about 8 oclock.
They telegraphed for my
wife but of course Mrs Hall is
crushed by the sudden-
ness of the blow.
I am thankful to say
I am not sick.
I must stay here

till after the funeral
on Tuesday.
His terribly sudden.
I wrote to Charles
about your affairs.
He took great interest,
& I enclose his suggestion
When I spoke of a
Key, he thought I
meant a Key to tune

a lyre, and a key
to play on. I did
not care to bother
him again.

Yrs very truly
Robert Heath

f4
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THE ATHENÆUM,
PALL MALL, S.W.

ὀσμώδης
osmodes

ῥινοβόλος
rhinobolus
nose-sticking

Henschen - aff. to smells

Holden