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Edme Mariotte Manuscript: A Treatise of the motion of water and other fluid bodyes

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It happens sometimes that when a great wind meets sideways another weaker, let it be opposite or not, it carries ye wch is near it and makes it to turn round with great swiftness, and ~~that turning of ye air wch is called a whirlwind goeth forward with ye stronger wind, and carry away all that wch it wraps up that hath not much weight; as dust, feathers and whole haycocks wch will sometimes fall above a quarter of a league distant. These whirlwinds also sometimes carry away a great quantity of water out of ye sea, wch appears to those which see it at a distance as a great pillar of water~~

There is seen an example of these winds wch blow at ye side both contrary in certain chimneys when there is made a great fire ye door remaining shut: for ye rarified air and ye flame wch are elevated make one part of ye air of ye chamber to follow, and that wch remains being too much dilated by that means, it ought necessary to return from ye top to ye bottom thro' ye chimney, wch brings back a part of ye smoak, and spreads it self thro' ye chamber, and ordinarily the smoak and ye rarefied air mount on one side and ye heavy descend by ye other with one part of ye smoak, this may be avoided by leaving ye door or a window half open: for ye air wch enters there follows ye motion of ye smoak thro' ye chimney, and sufficiently fills ye chamber. and if there was only a hole of an inch diameter in ye window or in ye door to permit ye air from with out to enter, there would be a sufficient wind to extinguish ye candles that should be exposed to it.

When ye wind meets with an obstacle a great wall it changeth its direction as is repressed beyond that obstacle, as may be seen in this figure in wch A B represents ye wall and ye Lines CA, CH, IL, FB, ye direction of ye wind being free. now it is evident that ye

[[Note: the original author meant "GH" but wrote "CH" here.]]

[[drawing of a wall; what appears to be a chimney (or kiln stack) part of and on the left side of the wall (R); and a structure (house?) (F) built up against the right side of the wall; and layers of wind drawn blowing over top of the structure (N M, E, D). At several levels of the wall there are horizontal lines labeled, top to bottom, as follows: A C, H G, L I, B F.]]

air is put into a spring between A and B, and that it cannot be extended towards ye base, it extends it self from ye side CA to DE, and ye air wch is towards R having little motion that wch is in ~~[[N]]M~~, is pulled thither by that wch is higher than M in N as is seen to happen to water beyond ye piles of bridges where it is very rapid

From thence it follows that it on ye side ye wind comes there is a wall higher than a chimney, ye smoak difficultly goeth out, because that ye wind turneth into a wirlwind after it hath passed ye wall, and enters with force in ye chimney. And altho' ye wall should be even with ye chimney and a small distance from it, it would cause almost a like effect, as may be judged by ye figure following, in wch A B maketh ye direction of ye wind B C is ye wall opposite to that direction, D E are two stack of chimneys of ye same hight with ye wall. Ye wind



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