

SMITH. (G. M.) *the egemold*

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WASTED SUNBEAMS

UNUSED HOUSE-TOPS

BY

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NEW YORK



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WASTED SUNBEAMS — UNUSED HOUSE-TOPS.

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HUMAN habitations, though erected for the benign purposes of insuring comfort, affording protection, and promoting family privacy, are, unfortunately, often the causes of a number of the morbid ills from which mankind suffer. This fact is true, as relating to the residences both of the rich and of the poor. It is a difficult task to construct an absolutely sanitary dwelling. In nearly every home, however, there are more or less avoidable, insalutary conditions, which are undermining the health of each family circle.

Tent-life, in genial climes, affords to many a healthful mode of living; and tent-life, in the warm season of the temperate zone, has its fascinations and its beneficial results. To be tabernacled under canvas and engaged in open-air occupations is often healthful; but the camp must be well sited, or the proximity of unkind neighbors, as cesspools, fens, and polluted water, will as surely rob the camp-dweller of his vitality as the footpad will rob the ungarded of his treasures. Camp-life, salutary as it may often be, is not adapted, from climatic and other causes, to meet the necessities of universal home requirements.

History tells us that certain nomadic tribes, in the early ages, finding aggregation and permanency of residence de-

sirable for business and other purposes, built solid structures, and, striking their tents, have thenceforth dwelt in substantial residences. From these primitive architectural styles of dwellings, we can learn certain lessons which, if adapted to suit our own civilization and our own climate, would promote the health and longevity of our race.

The nineteenth century will ever be memorable for the advancement it has given to medicine, surgery, and sanitary science; but the twentieth century, when reviewing and profiting by the achievements of its predecessor, will doubtless be amazed that the domiciles of mankind, especially in cities, were in some respects inferior to those built several thousands of years previously.

The writings of Virgil, Horace, and other classical writers can be read with interest and benefit, at the present day, as teaching the style and erudition of an ancient period. In Xenophon's "Memorabilia," after describing how homes should be pleasant and useful, cool in summer and warm in winter, it is added: "If it is well, therefore, that houses should thus be made, ought we not to build the parts toward the south, higher, that the sun in winter may not be shut out, and the parts toward the north, lower, that the cold winds may not fall violently on them?"

Sacred writers offer important lessons, also, concerning Eastern habits of thought and customs regarding habitations, which can be utilized in a most profitable manner in the present age. The early Oriental had no conception of the nature of air or sunlight, as now understood by modern science. Probably much of our present knowledge is but polished ignorance. Chemistry and physics have only recently become efficient handmaids in the precise examination of nature, but without these aids the Eastern mind drew certain broad and grand deductions from the investigation of natural phenomena. Some of these tenets are axioms in our own philosophy.

These ancient forefathers believed that fresh air was an important factor in maintaining physical vigor, and that exposure to the solar beams was salutary, and they lived

according to their convictions. In constructing their homes their architects utilized their house-tops and gave them salubrious plateaus. The roofs, gently declining as water-sheds, were covered either with tiles, bricks, or cement, making them as durable as pavements. Beddings of turf, prettily distributed, made these artificial deserts to blossom as the rose.

The boundaries of each house were designated by walls, but it was possible to walk over an extended neighboring area. To prevent accidents, obedience was given to the scriptural injunction, "When thou buildest a new house, then thou shalt make a battlement for thy roof, that thou bring not blood upon thine house if any man fall from thence." It is not a matter of wonder that such house-tops proved favorite places of resort, for worship, conference, and repose, and that occasionally tents were spread upon them.

Is there anything either in our climate or state of civilization which prevents us from, in a measure, imitating such ancient, useful, and fashionable airiness? During the inclement season of the year, comparatively little use might be made of the house-tops. I will subsequently allude to how the upper stories of dwellings might be constructed to catch the genial sunbeam, while shutting out winter's rudeness. Our atmosphere is proverbially bright, and many of the severer days are sunshiny; the genial element is subject to capture and benign use, as we can pluck quinine from its barky surroundings.

In a great metropolis like this, there are thousands of children and invalids, to say nothing of those in mature years and engaged in the ordinary pursuits of life, who require more fresh air and sunning, than is now practicable. City yards are small, shut in by tall buildings and high fences; the parks may not be adjacent, and the streets afford ill-conditioned pleasure-grounds.

Cannot architectural ingenuity, coached by sanitary science, contrive some method of using the thousands of acres of house-tops on this island so that roofs, now

so useful in affording in-door protection from cold, sleet, and rain, can be made additionally useful, at certain seasons, by affording out-door recreation and protection from invalidism? Cannot the same skill contrive new designs for the upper and most salutary stories of our dwellings; playing rooms and sunning rooms, especially adapted for the winter season, but so cleverly fashioned that too intense torrid beams can be excluded in summer?

The "solarium" of the New York Hospital, made attractive with its plants, birds, and aquaria, is a potent ally of therapeutics in restoring the convalescents, and at the Hospital for the Relief of the Ruptured and Crippled, the contagious sparkle of the sunbeam is found shining in the eyes and lives of the young patients.

Physicians not infrequently have occasion to observe the arrangements and conditions of the upper floors in our first-class private dwellings; for if a servant is sick, the family physician may be summoned to attend. The conditions may not be absolutely pernicious, but the space on these precious stories might be utilized in a much more healthful and attractive way. The heated and vitiated air from the lower part of the house rises to the top floor, with perhaps slight provision for its exit, and here are found servants' and storage rooms and also often a dark closet with precipitous ladder, leading to the scuttle, rarely entered and ascended, except by workmen to repair the roof. Apartments for domestics, have to be provided for, but quarters for trunks and unused articles, rather than occupying choice space, could be centralized in the building, be lighted from above, or relegated to some special annex in the yard.

In the ordinary and more spacious private dwellings the upper floors could be revolutionized: ventilating shafts introduced, new broad windows running the width of the house both front and rear, rearrangement of space, ready accessibility to the roof afforded, and at least a part of these floors made attractive to children and invalids as a bright, airy, and healthful resort. The limits of this arti-

cle forbid giving details of such construction, and other collateral suggestions, making such changes practicable.

It is beyond the scope of this paper to point out all the evils attendant upon modern homes; one evil to which I am specially alluding is that of etiolation. Etiolation, while favorably regarded by farmers in rendering celery white, crisp, and tender, is not favorable in regard to bringing up human beings.

Not many years ago, for a time, it was widely customary here, to hang blue-tinted glass panes or sashes in windows, curtains were drawn back, and many a room, from which the winter's sun was ordinarily, for the most part, excluded, was now brightened. Invalids and others basked in the genial beams, and apparently with benign effect. Was such effect attributable to the mere azure tint alone, or to a salutary and unaccustomed hyemal basking?

In many of the lofty and palatial apartment houses in New York, comparatively fireproof, wealth selects suites of rooms near the apices, the air being dryer, purer, brighter, and healthier than near the ground. It seems very clear that even private dwellings, occupied by single families, are not planned in the wisest manner.

Equally new attention should be paid to a utilization of the roof for a large part of the year. The city boy of today wishes to fly his kite. As a special privilege, parental consent is given to his going upon the house-top; but, with what injunctions! precautions against falling off, that he take feline steps, or the paint will be scratched and the joints of the thin tin covering will be cracked and the roof made leaky, etc. As illustrating present inaccessibility to the roof; during the recent large fire at Forty-second Street and Lexington Avenue, a party of ladies in one of the fine houses on Murray Hill endeavored to go on the roof, to witness the adjacent conflagration. One of the ladies became wedged in the narrow passage. She survives, to grace her family, and to tell a humorous experience.

Roofing can be contrived suited to this climate, and enduring as pavement. A pleasure-resort might ornament

each residence, its limits bounded by the area of the dwelling; neighborly consent could widen the range, turf and flowers brightening the plain. Iron-framed and glass-enclosed rooms, or cupolas, could be added, which would prove useful during all seasons, artificial heat tempering brumal inclemency.

If such adaptation of house-tops would be an advantage to the affluent, who can escape city life during the summer, how much greater advantage would be secured to the tenement-house districts. It would be more difficult to preserve roofs in the latter quarters in good order, but the public weal seems to demand that ingenuity should devise an adamant roof-covering. The promiscuous mingling on house-tops of the residents of slums, freed from police restraint, might at times lead to mischief; but ordinarily, and over a large area, it is reasonable to believe that the innate propensities of life would prove an all-sufficient constabulary influence. For the higher grade of tenement houses, such fresh-air facilities would probably be hailed with delight by the inmates. The proximity of open breathing places to their rooms would endear their humble homes. Summer moonlight evenings could have a new aspect; and, again, round a family lantern, groups might gather to read, sew, or engage in games, and thus a home-felt pleasure could quiet restless spirits, craving questionable or illicit amusements. More true enjoyment might be observed in such groups than on the piazzas of fashionable resorts. Landlords could arrange for the periodical sweeping of roofs, as well as the halls and stairways, and, among a very large class of the respectable poor, pride would stimulate to a tidy and decorative care of their home parks.

The confirmed vicious and degraded classes would neither appreciate nor properly use such improvements if offered them. In turning to higher grades of humanity, we find an aristocracy permeating even the lower million. In the same tenement house, social distinctions may be observed among families, obstructing intimate domestic in-

tercourse and cordial friendly co-operation ; but a well-recognized common weal would doubtless link such diversities into a sufficiently harmonious and democratic unity of action.

I have thus pointed out what advantages to health might be secured by a rearrangement of the upper stories of private dwellings, making them the most salutary, in each residence. I have also shown how the house-tops of both the opulent and of the poor might be adapted for the private and public welfare of mankind, especially in cities.

Architects have merely to study ancient history and modern science to utilize the suggestions here made. Sunbeams and oxygen have been running to waste long enough. People must congregate into cities, and such crowding together must necessarily preclude, in a measure, some of the most salutary ways of living. The poet has said, " God made the country, and man made the town ;" but the Divinity who so beautifully fashioned the country, brightens both His own handiwork and the town with the same sunlight, and aërates with the same atmosphere.

Cannot cities more generously use nature's benign gifts ? Cannot the closing years of the nineteenth century witness a revolution in the construction of dwellings, a change in the habits of city life, and a most notable improvement in the health of the people ?

