

RUSH (Benj.)

Doc. 17.

AN ACCOUNT  
OF THE  
Causes and Indications of Longevity,

AND OF THE

STATE OF THE BODY AND MIND IN OLD AGE;

WITH OBSERVATIONS ON ITS

DISEASES, AND THEIR REMEDIES.

By BENJAMIN RUSH, M.D.,

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OF PENNSYLVANIA.



NEW YORK:  
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AN ACCOUNT  
OF THE  
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*State of the Body and Mind in Old Age;*  
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[First Printed at Philadelphia, An. 1793.]

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MOST of the facts which I shall deliver upon this subject, are the result of observations made during the last five years, upon persons of both sexes, who had passed the eightieth year of their lives. I intended to have given a detail of the names, manner of life, occupations, and other circumstances of each of them; but, upon a review of my notes, I found so great a sameness in the history of most of them, that I despaired, by detailing them, of answering the intention which I have purposed in the following essay. I shall, therefore, only deliver the facts and principles which are the result of the inquiries and observations I have made upon this subject.

I. I shall mention the circumstances which favor the attainment of longevity.

II. I shall mention the phenomena of body and mind which attend it; And,

III. I shall enumerate its peculiar diseases, and the remedies which are most proper to remove, or moderate them.

**LONGEVITY.—The Circumstances which favor Longevity are—**

*Descent from long-lived ancestors.* I have not found a single instance of a person who has lived to be eighty years old, in whom this was not the case. In some instances, I found the descent was only from one, but in general, it

was from both parents. The knowledge of this fact may serve, not only to assist in calculating what are called the chances of lives, but it may be made useful to a physician. He may learn from it to cherish hopes of his patients in chronic, and in some acute diseases, in proportion to the capacity of life they have derived from their ancestors.\*

2. *Temperance in eating and drinking.* To this remark I found several exceptions. I met with one man of eighty-four years of age, who had been intemperate in eating; and four or five persons who had been intemperate in drinking ardent spirits. They had all been day-laborers, or had deferred drinking until they began to feel the langor of old age. I did not meet with a single person who had not, for the last forty or fifty years of their lives, used tea, coffee, and bread and butter twice a day, as part of their diet. I am disposed to believe that those articles of diet do not materially affect the duration of human life, although they evidently impair the strength of the system. The duration of life does not appear to depend so much upon the strength of the body, or upon the quantity of its excitability, as upon an exact accommodation of stimuli to each of them. A watch spring will last as long as an anchor, provided the forces which are capable of destroying both, are always in an exact ratio to their strength. The use of tea and coffee in diet seems to be happily suited to the change which has taken place in the human body by sedentary occupations, by which means less nourishment and stimulus are required than formerly to support animal life.

3. *The moderate exercise of the understanding.* It has long been an established truth, that literary men (other circumstances being equal) are longer lived than other people. But it is not necessary that the understanding should be employed upon philosophical subjects; to produce this influence upon human life. Business, politics, and religion, which are the objects of attention of men of all classes, impart a vigor to the understanding, which, by being conveyed to every part of the body, tends to produce health and long life.

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\* Dr. Franklin, who died in his eighty-fourth year, was descended from long-lived parents. His father died at eighty nine, and his mother at eighty-seven. His father had seventeen children, by two wives. The Doctor informed me that he once sat down as one of eleven adult sons and daughters at his father's table. In an excursion he once made to that part of England from whence his family migrated to America, he discovered in a grave-yard the tomb-stones of several persons of his name, who had lived to be very old. These persons he supposed to have been his ancestors.

## THERE ARE THREE GRAND REASONS

why almost every person should insure his life.

### First Reason.

To free his mind from anxiety in regard to the pecuniary welfare of his family or some other person dependent upon him, in case he should die untimely.

### To be free from this anxiety

is worth the proper cost of Life Insurance, on two accounts: 1st. The comfort enjoyed by himself and by his family in constantly realizing that the future of life will not be one of poverty, even under the worst contingency. 2d. The greater energy and success with which labor will be performed or business transacted when the mind is free, elastic, and in the fruition of enjoyment.



4. *Equanimity of temper.* The violent and irregular action of the passions tends to wear away the springs of life.

Persons who live upon annuities in Europe, have been observed to be longer lived, in equal circumstances, than other people: This is probably occasioned by their being exempted, by the certainty of their subsistence, from those fears of want which so frequently distract the minds, and thereby weaken the bodies of old people. Life-rents have been supposed to have the same influence in prolonging life. Perhaps the *desire of life*, in order to enjoy for as long a time as possible, that property which cannot be enjoyed a second time by a child or relation, may be another cause of the longevity of persons who live upon certain incomes. It is a fact, that the desire of life is a very powerful stimulus in prolonging it, especially when that desire is supported by hope. This is obvious to physicians every day. Despair of recovery is the beginning of death in all diseases.

But obvious and reasonable as the effects of equanimity of temper are upon human life, there are some exceptions in favor of passionate men and women having attained to a great age. The morbid stimulus of anger, in these cases, was probably obviated by less degrees, or less active exercises of the understanding, or by the defect or weakness of some of the other stimuli which keep up the motions of life.

5. *Matrimony.* In the course of my inquiries, I met with only one person beyond eighty years of age who had never been married. I met with several women who had borne from ten to twenty children, and suckled them all. I met with one woman, a native of Herefordshire in England, who is now in the one hundredth year of her age, who bore a child at sixty, menstruated till eighty, and frequently suckled two of her children (though born in succession to each other) at the same time. She had passed the greatest part of her life over a washing-tub.

I have not found *sedentary employments* to prevent long life, where they are not accompanied by intemperance in eating or drinking. This observation is not confined to literary men, nor to women only, in whom longevity, without much exercise of body, has been frequently observed. I met with one instance of a weaver; a second of a silversmith; and a third of a shoemaker, among the number of old people whose histories have suggested these observations.

## THERE ARE THREE GRAND REASONS

why almost every person should insure his life.

### Second Reason.

By expending a part of his surplus earnings for insurance, and thus providing for dependent ones in case of untimely death, a person may expend without regret or reprehension another part of his earnings for present luxuries for himself or family, for their mental development or refinement, or for whatever is pleasing to him or them; while, if not insured, he may feel obliged to be too saving of all his earnings, either for his own or their best good if he should live. A man had better enjoy life as it passes in part, and save for the future in part; for thereby he enjoys himself fully, so does his family.

I have not found that *acute*, nor that all *chronic* diseases shorten human life. Dr. Franklin had two successive vomicas in his lungs before he was forty years old. I met with one man beyond eighty, who had survived a most violent attack of the yellow fever; a second, who had had several of his bones fractured by falls, and in frays; and many who had been frequently affected by intermittents. I met with one man of eighty-six, who had all his life been subject to syncope; another, who had for fifty years been occasionally affected by a cough;\* and two instances of men who had been afflicted for forty years with obstinate headache. I met with only one person beyond eighty, who had ever been affected by a disorder in the *stomach*; and in him it arose from an occasional rupture. Mr. John Strangeways Hutton, of this city, who died last year in the hundred and ninth year of his age, informed me, that he never puked in his life. This circumstance is the more remarkable, as he passed several years at sea when a young man.† These facts may serve to extend our ideas of the importance of a healthy state of the stomach in the animal economy; and thereby to add to our knowledge in the prognosis of diseases, and in the chances of human life.

I have not found the *loss of teeth* to affect the duration of human life, so much as might be expected. Edward Drinker, who lived to be one hundred and three years old, lost his teeth thirty years before he died, from drawing the hot smoke of tobacco into his mouth through a short pipe.

Dr. Sayre, of New Jersey, to whom I am indebted for several very valuable histories of old persons, mentions one man, aged eighty-one, whose

\* This man's only remedy for his cough was the fine powder of dry Indian turnip and honey.

† The venerable old man, whose history first suggested this remark, was born in New York in the year 1684. His grandfather lived to be one hundred and one, but was unable to walk for thirty years before he died, from an excessive quantity of fat. His mother died at ninety-one. His constant drinks were water, beer, and cider. He had a fixed dislike to spirits of all kinds. His appetite was good, and he ate plentifully during the last years of his life. He seldom drank anything between his meals. He was never intoxicated but twice in his life, and that was when a boy, and at sea, where he remembers perfectly well to have celebrated by a *feu de joyé* the birthday of Queen Ann. He was formerly afflicted with the headache and giddiness, but never had a fever, except from the small-pox, in the course of his life. His pulse was slow, but regular. He had been twice married. By his first wife he had eight, and by his second seventeen children. One of them lived to be eighty-three years of age. He was about five feet nine inches in height, of a slender make, and carried an erect head to the last year of his life.

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## THERE ARE THREE GRAND REASONS

why almost every person should insure his life.

### Third Reason.

The family of every person has a right to a share of the labor of his natural lifetime. Every child at its birth has a right to a mother's care and the support earned by a father.

But the real lifetime of any man is uncertain, and the labor of his natural lifetime can only be insured to his family by several persons similar in regard to their probabilities of living, agreeing together that they will share and equalize the labors of their actual lives. The nearest that this can be done practically is for each to pay yearly while he lives a small sum or premium, and, in case of his death, have his family receive an agreed upon amount of assurance.



teeth began to decay at sixteen; and another, of ninety, who lost his teeth thirty years before he saw him. The gums, by becoming hard, perform in part the office of teeth:—But may not the gastric juice of the stomach, like the tears and urine, become acrid by age, and thereby supply, by a more dissolving power, the defect of mastication from the loss of teeth? Analogies might easily be adduced from several operations of nature, which go forward in the animal economy, which render this supposition highly probable.

I have not observed *baldness*, or *gray hairs*, occurring in early or middle life, to prevent old age. In one of the histories furnished me by Dr. Sayre, I find an account of a man of eighty-one, whose hair began to assume a silver color when he was only one and twenty years of age.

I shall conclude this head by the following remark:—

Notwithstanding there appears in the human body a certain capacity of long life, which seems to dispose it to preserve its existence in every situation; yet this capacity does not always protect it from premature destruction; for among the old people whom I examined, I scarcely met with one who had not lost brothers or sisters in early and middle life, and who were born under circumstances equally favorable to longevity with themselves.

## II. I come now to mention some of the Phenomena of the Body and Mind which occur in Old Age.

1. There is a great sensibility to *cold* in all old people. I met with an old woman of eighty-four, who slept constantly under three blankets and a coverlet during the hottest summer months. The servant of Prince de Beaufrémont, who came from Mount Jura to Paris, at the age of one hundred and twenty-one, to pay his respects to the first National Assembly of France, shivered with cold in the middle of the dog days, when he was not near a good fire. The National Assembly directed him to sit with his hat on, in order to defend his head from the cold.

2. Impressions made upon the *ears* of old people, excite sensation and reflection much quicker than when they are made upon their eyes. Mr. Hutton informed me, that he had frequently met his sons in the street, without knowing them until they had spoken to him. Dr. Franklin informed me, that he recognized his friends, after a long absence from them, first by

## IN CASE OF INSURANCE

A person pays for three things, and

### He is not fully insured

Unless three things are true:

1st. He must believe that the assurance will be paid in case of his death, or he does not enjoy the full fruition of insurance.

2d. His family must believe that the assurance will be paid when he dies, or they will not enjoy all that they can from the money paid.

3d. The Assurance must be paid when due, in order that its use may be enjoyed.

When a person insures he pays his premium for these three things, and so far as there is any shortcoming in either respect, he is by so much not insured.

their voices. This fact does not contradict the common opinion upon the subject of memory; for the recollection in these instances is the effect of what is called reminiscence; which differs from memory in being excited only by the renewal of the impression which at first produced the idea which is revived.

3. The *appetite* for food is generally increased in old age. The famous Parr, who died at one hundred and fifty two, ate heartily in the last week of his life. The kindness of nature, in providing this last portion of earthly enjoyments for old people, deserves to be noticed. It is remarkable, that they have, like children, a frequent recurrence of appetite, and sustain with great uneasiness the intervals of regular meals. The observation, therefore, made by Hippocrates, that middle-aged people are more affected by abstinence than those who are old, is not true. This might easily be proved by many appeals to the records of medicine; but old people differ from children, in preferring solid to liquid aliment. From inattention to this fact, Dr. Mead has done great mischief, by advising old people, as their teeth decayed or perished, to lessen the quantity of their solid, and to increase the quantity of their liquid food. This advise is contrary to nature and experience; and I have heard of two old persons who destroyed themselves by following it. The circulation of the blood is supported in old people chiefly by the stimulus of aliment. The action of liquids of all kinds upon the system is weak, and of short continuance, compared with the durable stimulus of solid food. There is a gradation in the action of this food upon the body. Animal matters are preferred to vegetable; the fat of meat, to the lean; and salted meat to fresh, by most old people. I have met with but few old people who retained an appetite for milk. It is remarkable, that a less quantity of strong drink produces intoxication in old people, than in persons in the middle of life. This depends upon the recurrence of the same state of the system, with respect to excitability, which takes place in childhood. Many old people, from an ignorance of this fact, have made shipwreck of characters which have commanded respect in every previous stage of their lives. From the same recurrence of the excitability of childhood in their systems, they commonly drink their tea and coffee much weaker than in early or middle life.

4. The *pulse* is generally full, and frequently affected by pauses in its pul-

### INSURANCE MEANS

to be made sure. So far, then, as a person does not feel sure, he is not insured, truly speaking. It is the same with his family.

#### To enjoy Insurance fully

it is absolutely necessary that a person should look into it, examine its groundwork, and understand its working, its security, and its equity, *as practised by the*

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sations when felt in the wrists of old people. A regular pulse in such persons indicates a disease, as it shows the system to be under the impression of a preternatural stimulus of some kind. This observation was suggested to me above twenty years ago, by Morgagni, and I have often profited by it in attending old people. The pulse in such patients is an uncertain mark of the nature or degree of an acute disease. It seldom partakes of the quickness or convulsive action of the arterial system which attends fever in young or middle-aged people. I once attended a man of seventy-seven in a fever of the bilious kind, which confined him for eight days to his bed, in whom I could not perceive the least quickness or morbid action in his pulse until four and twenty hours before he died.

5. The marks of old age appear earlier, and are more numerous in persons who have combined with hard labor, a vegetable or scanty diet, than in persons who have lived under opposite circumstances. I think I have observed these marks of old age to occur sooner, and to be more numerous in the German, than in the English or Irish citizens of Pennsylvania. They are likewise more common among the inhabitants of country places, than of cities, and still more so among the Indians of North America, than among the inhabitants of civilized countries.

6. Old men tread upon the whole base of their feet at once in walking. This is perhaps one reason why they wear out fewer shoes, under the same circumstances of constant use, than young people, who, by treading on the posterior, and rising on the anterior part of their feet, expose their shoes to more unequal pressure and friction. The advantage derived to old people from this mode of walking is very obvious. It lessens that disposition to totter which is always connected with weakness:—hence we find the same mode adopted by habitual drunkards, and is sometimes, from habit, practised by them when they are not under the influence of strong drink.

7. The *memory* is the first faculty of the mind which fails in the decline of life. While recent events pass through the mind without leaving an impression upon it, it is remarkable, that the long forgotten events of childhood and youth are recalled and distinctly remembered.

I met with a singular instance of a German woman, who had learned to speak the language of our country after she was forty years of age, who had

**EVERY WIFE WHEN MARRIED,  
Every Child when born,**

Has, according to the statements at the foot of a preceding page, a right to a share of the labors of a man for at least a portion of his natural life. It is too evident that this is their right to need any argument. The fruition of this right can only be practically obtained through correct Life Insurance, by which each person of many, pays into a common fund a portion of his yearly earnings, *i. e.*, a stipulated premium, and in case of his death, a portion of the fund stipulated, *i. e.*, the Assurance, is handed over to his family for their future benefit. Nothing is more unfortunate than for a wife or a child to be left without the supporting aid of a natural protector. This should always be provided against by means of

**Correct Life Insurance.**

forgotten every word of it after she had passed her eightieth year, but spoke the German language as fluently as ever she had done. The memory decays soonest in hard drinkers. I have observed some studious men to suffer a decay of their memories, but never of their understandings. Among these, was the late Mr. Anthony Benezet of this city. But even this infirmity did not abate the cheerfulness, or lessen the happiness of this pious philosopher; for he once told me, when I was a young man, that he had a consolation in the decay of his memory, which gave him a great advantage over me. "You can read a good book (said he) with pleasure but once; but when I read a good book, I so soon forget the contents of it, that I have the pleasure of reading it over and over, and every time I read it, it is alike new and delightful to me." The celebrated Dr. Swift was one of those few studious men who have exhibited marks of a decay of understanding in old age; but it is judiciously ascribed by Dr. Johnson to two causes which rescue books, and the exercise of the thinking powers, from having had any share in inducing that disease upon his mind. These causes were a rash vow which he made when a young man, never to use spectacles, and a sordid seclusion of himself from company; by which means he was cut off from the use of books and the benefits of conversation, the absence of which left his mind without its usual stimulus—hence it collapsed into a state of fatuity. It is probably owing to the constant exercise of the understanding, that literary men possess that faculty of the mind in a vigorous state in extreme old age. The same cause accounts for old people preserving their intellects longer in cities, than in country places. They enjoy society upon such easy terms in the former situation, that their minds are kept more constantly in an excited state by the acquisition of new, or the renovation of old ideas; by means of conversation.

8. I did not meet with a single instance in which the moral or religious faculties were impaired in old people. I do not believe that these faculties of the mind are preserved by any supernatural power, but wholly by the constant and increasing exercise of them in the evening of life. In the course of my inquiries, I heard of a man of one hundred and one years of age, who declared that he had forgotten everything he had ever known, except his God. I found the moral faculty, or a disposition to do kind offices, to be

### EVERY DAUGHTER

is entitled to so much of the labor of her father's natural lifetime as will protect her early years, and provide an appropriate dowry on her wedding-day. This can be done by the payment of a very small sum at once in her childhood, or a smaller sum yearly, for an

#### Endowry Policy

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the assurance of which becomes payable on her wedding-day, or, at farthest, on a certain date, if she is then living. Let every father, every mother, every daughter, send for a document upon this feature, as yet only practised by this Company; and let every daughter be thus provided in the days of prosperity.



exquisitely sensible in several old people, in whom there was scarcely a trace left of memory or understanding.

9. *Dreaming* is universal among old people. It appears to be brought on by their imperfect sleep, of which I shall say more hereafter.

10. I mentioned formerly the sign of a *second childhood*, in the state of the appetite in old people. It appears further,—1. In the marks which slight contusions or impressions leave upon their skins. 2. In their being soon fatigued by walking or exercise, and in being as soon refreshed by rest. 3. In their disposition, like children, to detail immediately every thing they see and hear. And 4. In their aptitude to shed tears; hence they are unable to tell a story that is in any degree distressing, without weeping. Dr. Moore takes notice of this peculiarity in Voltaire, after he had passed his eightieth year. He wept constantly at the recital of his own tragedies. This feature in old age did not escape Homer. Old Menelaus wept ten years after he had returned from the destruction of Troy, when he spoke of the death of the heroes who perished before that city.

11. It would be sufficiently humbling to human nature, if our bodies exhibited in old age the marks only of a second childhood; but human weakness descends still lower. I met with an instance of a woman between eighty and ninety, who exhibited the marks of a second infancy, by such a total decay of her mental faculties, as to lose all consciousness in discharging her alvine and urinary excretions. In this state of the body, a disposition to sleep succeeds the wakefulness of the first stages of old age. Dr. Haller mentions an instance of a very old man, who slept twenty out of every twenty-four hours during the last few years of his life.

12. The disposition in the system to renew certain parts in extreme old age, has been mentioned by several authors. Many instances are to be met with in the records of medicine, of the sight\* and hearing having been restored,

\*There is a remarkable instance of the sight having been restored after it had been totally destroyed, in an old man, near Reading, in Pennsylvania. My brother, Jacob Rush, furnished me with the following account of him in a letter from Reading, dated June 23, 1792:

"An old man of eighty-four years of age, of the name of Adam Riffle, near this town, gradually lost his sight in the sixty-eighth year of his age, and continued entirely blind for the space of twelve years. About four years ago his sight returned, without making use of any means for the purpose, and without any visible change in the appearance of the eyes, and he now sees as well as ever he

### NOTHING CAN BE MORE EVIDENT

than that those who have a clear probability of high longevity have a valuable possession that may be made a first-class security for the payment of money if their probability can be made a certainty to nearly the same extent.

### THIS CAN BE DONE

by having such persons classed together for insurance, since the probabilities of their lifetimes will be but little reduced by the average of their actual lives. A hundred persons at 30, having each a clear probability of reaching 80, may average 70; and by insurance may possess absolutely 40 years of life's labor to such an extent as each insures.

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and even of the teeth having been renewed in old people a few years before death. These phenomena have led me to suspect that the antediluvian age was attained by the frequent renovation of different parts of the body; and that when they occur, they are an effort of the causes which support animal life, to produce antediluvian longevity, by acting upon the revived excitability of the system.

The fear of death appears to be much less in old age, than in early or middle life. I met with many old people who spoke of their dissolution with composure, and with some who expressed earnest desires to lie down in the grave. This indifference to life, and desire for death (whether they arise from satiety in worldly pursuits and pleasures, or from a desire of being relieved from pain), appear to be a wise law in the animal economy, and worthy of being classed with those laws which accommodate the body and mind of man to all the natural evils, to which, in the common order of things, they are necessarily exposed.\*

**III. I come now briefly to enumerate the Diseases of Old Age, and the Remedies which are most proper to remove or to mitigate them.**

The diseases are, chronic and acute. The chronic are: 1. Weakness of the knees and ankles, a lessened ability to walk, and tremors in the head and limbs. 2. Pains in the bones, known among nosological writers by the name of rheumatism. 3. Involuntary flow of tears, and of mucus from the nose. 4. Difficulty of breathing, and a short cough, with copious expectoration. A weak or hoarse voice generally attends this cough. 5. Costiveness. 6. An inability to retain the urine as long as in early or middle life. Few persons beyond sixty pass a whole night without being obliged to discharge their urine.\* Perhaps the stimulus of this liquor in the bladder may be one cause of the universality of dreaming among old people. It is certainly a frequent

did. I have seen the man, and have no doubt of the fact. He is at this time so hearty, as to be able to walk from his house to Reading (about three miles), which he frequently does in order to attend church. I should observe, that during both the gradual loss and recovery of his sight, he was no ways affected by sickness, but on the contrary enjoyed his usual health. I have this account from his daughter and son-in-law, who live within a few doors of me."

\* I met with an old man who informed me, that if from any accident he retained his urine after he felt an inclination to discharge it, he was affected by a numbness, accompanied by an uneasy sensation in the palms of his hands.

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**THE SCIENCE OF LIFE  
APPLIED TO LIFE INSURANCE.**



cause of dreaming in persons in early and middle life: this I infer from its occurring chiefly in the morning, when the bladder is most distended with urine. There is likewise an inability in old people to discharge their urine as quickly as in early life. I think I have observed this to be among the first symptoms of the declension of the strength of the body by age. 7. Wakefulness. This is probably produced in part by the action of the urine upon the bladder; but such is the excitability of the system in the first stages of old age, that there is no pain so light, no anxiety so trifling, and no sound so small, as not to produce wakefulness in old people. It is owing to their imperfect sleep, that they are sometimes as unconscious of the moment of their passing from a sleeping to a waking state, as young and middle-aged people are of the moment in which they pass from the waking to a sleeping state. Hence we so often hear them complain of passing sleepless nights. This is, no doubt, frequently the case; but I am satisfied, from the result of an inquiry made upon this subject, that they often sleep without knowing it, and that their complaints in the morning, of the want of sleep, arise from ignorance, without the least intention to deceive. 8. Giddiness. 9. Deafness. 10. Imperfect vision. The acute diseases, most common among old people, are:—1. Inflammation of the eyes. 2. The *pneumonia notha*, or bastard peripneumony. 3. The colic. 4. Palsy and apoplexy. 5. The piles. 6. A difficulty in making water. 7. Quartan fever.

All the diseases of old people, both chronic and acute, originate in debility. The remedies for the former, where no morbid action takes place in the system, are stimulants.

The first of these is,—

1. Heat. The ancient Romans prolonged life by retiring to Naples, as soon as they felt the infirmities of age coming upon them. The aged Portuguese imitate them, by approaching the mild sun of Brazil, in South America. But heat may be applied to the torpid bodies of old people artificially.—  
1. By means of the warm bath. Dr. Franklin owed much of the cheerfulness and general vigor of body and mind which characterized his old age, to his regular use of this remedy. It disposed him to sleep, and even produced a respite from the pain of the stone, with which he was afflicted during the last years of his life.

## THE AMERICAN POPULAR

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(Guarantees RETURNS (DIVIDENDS) TO THE LONG-LIVED.)

### LIFE INSURANCE COMPANY,

419, 421 Broadway, corner Canal St., New York,

Has several valuable minor *new* features, but its great and distinctive point or principle, by which it differs from, and becomes superior to all others, is, that *they* class all their insured together, each sharing in the losses caused by any, but

THE AMERICAN POPULAR insures *sound* lives in *four separate classes*, at premiums varying with the risk in each class; each class being, as it were, a separate company, paying its own losses, and sharing in its own surplus.

2. Heat may be applied to the bodies of old people by means of stove-rooms. The late Dr. Dewit of Germantown, who lived to be near an hundred years of age, seldom breathed an air below 72°, after he became an old man. He lived constantly in a stove-room.

3. Warm clothing, more especially warm bed-clothes, are proper to preserve or increase the heat of old people. From the neglect of the latter, they are often found dead in their beds in the morning, after a cold night, in all cold countries. The late Dr. Choquet, of this city, who lived to be eighty-five, slept in a baize night gown, under eight blankets and a coverlet, in a stove-room, many years before he died. The head should be defended in old people by means of woollen or fur caps in the night, and by wigs and hats during the day in cold weather. These artificial coverings will be the more necessary where the head has been deprived of its natural covering. Great pains should be taken likewise to keep the feet dry and warm by means of thick shoes.\* To these modes of applying and confining heat to the bodies of old people, a young bed-fellow has been added; but I conceive the three artificial modes which have been recommended, will be sufficient without the use of one which cannot be successfully employed without a breach of delicacy or humanity.

II. To keep up the action of the system, generous diets and drinks should be given to old people. For a reason mentioned formerly, they should be indulged in eating between the ordinary meals of families.

III. Young company should be preferred by old people to the company of persons of their own age. I think I have observed old people to enjoy better health and spirits, when they have passed the evening of their lives in the families of their children, where they have been surrounded by grandchildren, than when they lived by themselves. Even the solicitude they feel for the welfare of their descendants contributes to invigorate the circulation of the blood, and thereby to add fuel to the lamp of life.

IV. Gentle exercise. This is of great consequence in promoting the health of old people. It should be moderate, regular, and always in fair weather.

V. Cleanliness. This should by no means be neglected. The dress of old people should not only be clean, but more elegant than in youth or middle life. It serves to divert the eye of spectators from observing the decay and deformity of the body, to view and admire that which is always agreeable to it.

Death from old age is the effect of a gradual palsy. It shows itself first in the eyes and ears, in the decay of sight and hearing: it appears next in the urinary bladder, in the limbs and trunk of the body; then in the sphincters of the bladder and rectum; and finally, in the nerves and brain, destroying in the last, the exercise of all the faculties of the mind.

Few persons appear to die of old age. Some one of the diseases which have been mentioned, generally cuts the last thread of life.



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