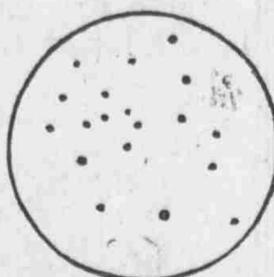


Copyright, 1911, by American-Examiner. Great Britain Rights Reserved.

## The Strange New Disease You May Catch from Goats!

### Science Begins Its Battle with a Fever Germ Which Has Been Brought Here from Malta and Which Forms a Serious Menace to America's Health



A Greatly Enlarged Culture of the New Fever Germs—When Fed on Gelatine the Germs Form Themselves into Little Round Clusters.

A Test Tube Filled with Germs of the New Fever.



Thousands of Children Who Are Fed on Goat's Milk Are Exposed to the Danger of Malta Fever.

By Rene Bache

GOATS' milk, frequently prescribed by doctors, and believed to be superior to cows' milk because it is less likely to carry tuberculosis germs, has been found to be responsible for a new and even more serious disease.

So serious is the matter considered that the War Department, which has officially taken it in hand, has kept it wholly secret up to the present moment. The establishment of a "field laboratory" at Langtry, Tex., to make a study of the new plague, was carefully withheld from publication—even the discovery of the existence of the disease along the Texas border being known only to a few officers of the medical corps of the army.

The malady in question is Malta fever, and its infection is derived from goats. It gets its name from the fact that for a long time it has been very bad on the island of Malta—though more or less prevalent all along the shores of the Mediterranean. Within the last few years, however, the Maltese have managed to get rid of it almost entirely by killing off the infected

goats and replacing them with others of the same variety from Gibraltar, where the disease was unknown. The scenery of Malta is mostly arranged on a vertical plan, with rugged mountains and steep cliffs, so that cows cannot very well be kept there. Hence the goats, on which dependence is had for milk. Goats from Malta are among the animals forbidden to land in our own country, under the regulations promulgated by the Department of

Agriculture. The restriction, however, has not proved of much value, inasmuch as large numbers of Maltese goats have been brought into Texas over the Mexican border. Doubtless it is from them that the infection has come.

The great goat-raising region of the United States is in Texas, extending for 300 miles along the Rio Grande and thence northward for about ninety miles. It includes the Nueces and Lower Pecos districts—

One of the Texas Goat Farms, Where the New Disease First Made Its Appearance.

a region of ranges of low, undulating hills, traversed by many rocky canyons. For the most part it is arid and barren and covered with desert scrub. The breeding of goats is the principal industry of the inhabitants.

For some years past physicians in that part of the country have made note of a good many rather mysterious cases of a relapsing fever that did not respond to treatment. The sufferers died only in a small percentage of instances, but often they were physically incapacitated for many months, being even unable to walk. No sooner would they get better than they were overtaken by a fresh onset of the malady. It was very puzzling, and no suspicion of its true nature seems to have been entertained. Commonly it was taken for a kind of typhoid with unusual symptoms. It has been especially prevalent

in Edwards County, at the head of the Nueces River. Twenty-five cases occurred recently in the practice of one doctor at Rock Springs, in the Nueces River Canyon. There and elsewhere it is known among the people as "slow fever," "Rio Grande fever," and, very suggestively, as "goat fever." In fact, goats have been popularly suspected of being accountable for the trouble, which seemed to afflict only persons who drank goats' milk or were intimately associated with goats.

The region is sparsely settled—which is doubtless the reason why the prevalence of the disease was so slow to attract attention. When, not long ago, it came under the notice of the army doctors, immediate alarm was taken, and the War Department sent two surgeons, Thomas L. Ferenbaugh and Ernest R. Gentry, to make an investigation. They established a field laboratory at Langtry and by bacteriological tests ascertained that the blood of the sufferers did actually contain the germ of Malta fever.

What had been only suspected was thus made a certainty. The discovery was deemed of the utmost importance, inasmuch as the malady has recently been spreading in other parts of the world, especially in South Africa, and has become a very serious problem. It is not ordinarily fatal—though once in a while it does assume a malignant and very dangerous form. But it is exhausting, being characterized by long-continued fever, with frequent

relapses, and no cure for it is known.

It was traced only a few years ago to goats in Malta, where the germ was found in the milk of the animals. The microbe, known to science as *Micrococcus melitensis*, is a remarkably tiny ball-shaped bacterium. It occurs in enormous numbers in the milk of the infected animals, through the drinking of which it is communicated to human beings. There is a suspicion, however, that it may also be conveyed by the dust of places where sick goats are confined—such dust finding its way into the lungs in breathing.

The regulation excluding Malta goats from the United States has been in force for the last half-dozen years. In 1905 sixty-five of the animals, seemingly in healthy condition, were shipped from the island of Malta to this country on the steamer *Joshua Nicholson*. Their milk was drunk in quantities by the officers and crew, and almost every man on board was struck down by Malta fever.

It was in the same year that Captain Charles F. Craig, an army surgeon, found a nurse sick with the disease in a hospital in Washington. She had contracted it apparently from contact with sick soldiers from the Philippines, where Malta fever prevails to a considerable extent. There have also been a few "laboratory cases"—infections due to accident in handling the germs.

The recent investigations made by the War Department have proved beyond question that Malta fever is "endemic"—i. e., permanently established in Texas. Apparently the infected area is practically the whole of the goat-raising region in that State. Most cases of the disease among the ranchers are contracted in the Spring, from March to June, when whole families literally live with the herds, teaching the kids to suckle. Special note is made of the fact that the infection has a way of running through families which occupy dwellings surrounded by goat pens. Dust may have something to do with the matter in such instances; and it is

rather curious to find that the goat-raisers themselves, suspecting such an origin of the mischief, sometimes call the malady "dust fever."

So well established is the connection of the disease with goats that Mexicans will not drink the milk of the animals unboiled. But the Americans, for the most part, neglect this very obvious and sensible precaution.

The army surgeons, in the course of their investigations, made trips from Langtry for hundreds of miles, visiting all parts of the goat-raising section. They took a few sample goats from each herd and examined their blood and milk. In about 20 per cent of the animals the infection was found to be present.

The magnitude of the goat-raising industry in that region may be judged from the fact that in Edwards County alone there are 175,000 goats, scattered about in herds of 500 to 6,000. In nearly every herd there are a few Malta goats, but the great majority are purebred Angoras. The Angoras, which are reared for their wonderful fleeces, were first brought to this country from Asia Minor. Within recent years nearly all of those imported have been from South Africa. But both South Africa and Asia Minor are badly infected with Malta fever.

The Angora goat is a very beautiful creature—milk-white, with spirally-twisted horns and silvery wool arranged in long ringlets over the whole of its body, so as to look as if curled on a curling stick. It seems to have been originally a wild Persian species, but was first reared for its fleece in the Angora district among the Taurus Mountains. Its wool was spun by the Israelites in the time of Moses. Immense quantities of it are used today, under the name of "mohair," in the making of dress goods. The beautiful and costly "camel's-hair" shawls are woven of Angora fleece.

The Turks used to have rigid regulations against the exportation of these goats, and the first four Angoras fetched to the United States were secured by Dr. W. C. Bailey, of San Jose, Cal. He cut off their wool, smuggled them across the Bosphorus under a boat load of hay, transformed them into black sheep by sprinkling them with coal dust, drove them in this disguise through the streets of Constantinople and managed to get them aboard a steamship without discovery.

## Why One Marriage in Every Nine Ends in Divorce

By Simon E. Patten

Professor of Political Economy at the University of Pennsylvania.

UNDERLYING all divorces, all unhappy marriages and all resulting evils will be found the fundamental economic problem based upon the almost universal dependence of women. When society shall make women financially independent, politically independent and personally independent of their husbands, and of other men, the divorce problem will have been solved, the home will become a place of perpetual peace and the family will reach its highest estate.

The time passed years ago when normal women were actually, or even in theory, dependent upon men for a living. This is proved by the vast and growing army of self-supporting women of all ages in all parts of the world and in all manner of occupation.

Women are successful as doctors, lawyers, preachers, as merchants, as nurses, architects and engineers; some of them engage in general contracting; Philadelphia has at least one woman plumber; a Western city has a woman police officer, a Philadelphia theatre had a woman for its special officer, and thus we find in every vocation of man a woman making good.

It is against the whole scheme of human development to hold one class dependent upon another. The fundamental wrong of slavery was in the dependence of the slave and the exercise of the authority born of such dependence. Had the slave received full pay for his services the authority of his master would have diminished in exact ratio to this pay, and the usefulness of the slave would have increased in the same ratio.

Just so with women. Once a woman shall become self-supporting then shall she become self-respecting. When she shall become thoroughly self-respecting and wholly independent, then she also shall become a fit companion for her logical mate and meet him on a common ground of morality where love and affection, mutual help, mutual interest and every other essential to right living and right thinking come in logical order and in natural sequence.

Where a woman is wholly dependent on the husband her spirit rebels, is then subdued and finally she becomes the cringing, distasteful and useless factor in the scheme of human development. Her offspring suffers because of this mental attitude, to the resulting physical deterioration. It follows, then, when a woman shall have lost her spirit and her pride and her charm, she likewise loses the interest, and sometimes the support of her husband and becomes a public charge.

Taking the mutual attraction for granted—a man normal in every respect, and a woman conscious of her personal attractiveness, secure in her financial independence, each seeking nothing more than an opportunity to live a normal life under decent conditions, sharing each other's burdens equally and fairly, each meeting a proper

share of all obligations, financial and moral—the constant source of turmoil and strife within the home, which may be summarized in the single word "money," is wholly eliminated.

The woman has her own income, the man has his own income, and are like partners, dealing fairly one with the other. The expenses are shared, as they should be shared, by those who incur them, and all of their time is devoted to the carrying out of their several economic ventures, yielding to each the increments necessary to the happiness of both.

Such a situation breeds confidence, commands respect, builds up the woman, strengthens the man, and makes for all that is best in the strengthening of society.

The marriage relationship is in law and in fact a contract perfectly right and entirely proper, but the two parties to this or any other contract should make the best bargain possible, always being fair. In the marriage contract the woman offers much, gives much and has every right under the law to demand much and to get all she can.

It is entirely wrong for a man to give all and get nothing, just as it is entirely wrong for a woman to cease to be an economic factor in the scheme of life as soon as she becomes a wife. A dependent is a pauper whether she be made wife or widow, and a woman who lives on the earnings of a man is scarcely much stronger or better in the final analysis than a man who lives on the earnings of a woman.

True happiness will only come when both the man and the woman earn each in proportion to their ability, and the wise man and the wise woman will have a clear understanding as to the earning capacity of each other before entering upon the serious affairs of married life. There can be no love, and there is no love where there is no respect, and there can be no respect where dependence falls upon one or upon the other of a marriage contract.

The whole scheme of domestic relationship narrows itself down to the fair, frank and equitable sharing of expenses and the facing of the economic issues as they develop during the term of the contract.

The question of marriage is simply a question of income. We are all creatures of emotions, passion and desire. The theme of love is a natural element in the human soul; it is not a foreign germ that has to be injected into the body and cultivated. It is already in the soul and only awaits to be aroused.

There is no reason why we should not combine love on the one hand with the income power on the other, providing society keeps the normal man within limits.

For instance, if a girl is earning, say \$10 a week, and is in contact with normal men who are earning \$50 a week, why then she will pick out the kind of man she likes, he will be the kind of woman he likes, and they will have reasons for coming together and living together. They both are equally capable of earning sufficient for their individual needs, and therefore are not dependent on each other. This is what seems to be perfectly normal.

But then again, it is indeed hard to blame a girl who is earning only \$3 a week—who is possessed of good looks, good figure and is generally pleasing to the eye—for selling herself for \$100,000. She is not capable of earning enough to

support herself and therefore has to be supported. The normal girl and the normal man who are both capable of earning their own living do not think of these things.

What we want to do with the marriage and divorce question is to keep people in a normal condition, and those who are not in this condition must be brought back.

Just as soon as you get people away from the normal state you make one set of people slaves of another set. This means the decreasing of our intellectual or emotional natures and the breaking down of social standards.

We have spoken of the girl who is lacking in ability, or in opportunity to earn enough to support herself. Now we speak of the girl who is kept at home with certain duties to perform but no income-making power. On a man who has the necessary means for such luxuries. To get an equilibrium we must cut down the education of women to spend rather than earn, or we must raise their earning power to a higher point. As long as men do not want women to earn a living there will be trouble. The only thing a woman has to sell is herself, and if she cannot earn enough to support herself then in most cases she sells herself.

We educate a woman to spend \$1,500 a year, whereas she has an income-earning power of only \$300. When she faces life she therefore has to choose between the man whom she may love but who cannot earn the \$1,500, and the man she cares little about but who can provide the necessary means for such luxuries. Just as long as we have women who are not taught to have an earning capacity, we are going to have many, many cases of this kind.

The man's side of this problem is quite different. The young man of to-day has the notion that he should support a wife, and consequently he emphasizes this fact in himself, often to the extent of deceiving himself. He does not look to her face, her figure, her style, and gets the idea, which has a great deal of good in it and much bad, that women are to be supported. The girl he marries, unless she has the earning power, does not know the value of his income or how to use it, and in most cases she becomes dissatisfied with the resulting chaos.

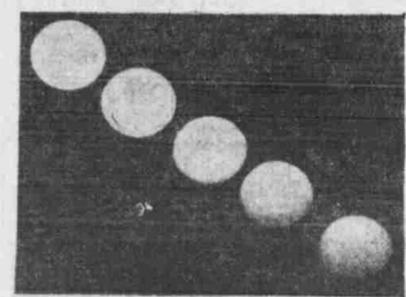
Married life should be a brighter life, a life in which devotion can be expressed and fulfilled; but on the other hand nobody should be forced into it because they lack income. To get an equilibrium we must cut down the education of women to spend rather than earn, or we must raise their earning power to a higher point. As long as men do not want women to earn a living there will be trouble. The only thing a woman has to sell is herself, and if she cannot earn enough to support herself then in most cases she sells herself.

It is a false doctrine to tell a person to get married and learn to love afterward. Love cannot express itself without income. Just as soon as you get a person on any other basis their natural and normal feelings are suppressed, they become subordinate and this subordination shapes their whole lives.

Love is the socializing of income. Sexual impulse is an inherited sentiment and should not be called by the title of love, nor should it be made the basis of marriage. As soon as you combine sexual impulse with income-earning capacity then you have trouble.

The way to prevent divorce is to set up a new ideal of marriage. Sexual impulse will never make for happy marriage. The combining of the income-earning capacity will, however, make the group permanent instead of the individual and will put the family on a sound basis.

## The Sun's Puzzling Behavior Explained



Photographs of the Descending Sun Taken at Intervals of Fifteen Minutes Show That Its Size Remains Actually Unchanged.

MOST persons have noticed, perhaps with wonder, that the sun appears considerably smaller at midday than shortly after rising or before setting—in fact, that on its rising course it decreases in size, apparently, and on its descending course gradually regains its proportions observed at the beginning of day.

This puzzling phenomenon has been variously explained. The most familiar explanation is that when the sun is on or near the horizon the layers of vapor in the lower atmosphere act as a convex lens, magnifying it and confusing its actual outline with a sort of luminous aureole that surrounds it.

Another explanation is that when on the horizon the sun is viewed in comparison with objects on the landscape, and therefore the illusion of greater size is created, which disappears as the orb rises farther and farther out of the range of such comparisons. It is said that proof of this theory is obtained by looking at the evening or morning sun through a long tube that excludes other objects, in which case the illusion of extra bulk disappears.

Recently, photographs of the sun taken at intervals during its afternoon course from the zenith to the horizon proved to be of exactly the same size—showing that the camera lens and the photographic plate

do not share in the illusion experienced by the human eye and brain. The camera also destroys the illusion of decrease in size through greater brilliancy of the sun at the zenith than at the horizon.

The most interesting and satisfactory explanation of all, however, is that the imaginary vault of the sky beneath which the sun rolls along on its daily course is elliptical, or flattened, instead of being a semi-circle. A simple diagram shows the effect of this upon the apparent size of the sun at morning, noon and evening.

A semi-circle described from a base line shows the actual path of the sun at different periods of its course from the horizon to the zenith. Small circles of equal size along this true path indicate the unvarying size of the sun. At the center of the base line, directly beneath the zenith, stands the observer; but less than one-third of the distance to the true zenith, where the sun is at noon, is the zenith of the elliptical heavens of his imagination. Lines drawn from each side of the sun's disc at the true zenith must converge at the observer's eye. Therefore, at the much closer zenith of the imaginary elliptical path of the sun that orb's disc must appear correspondingly smaller.

As the beginnings of the true arc and of the elliptical path at the horizon are identical, there is no illusion at that point. The illusion increases with the flattening of the elliptic toward the zenith.

Stars, being so distant and being mere points instead of visible discs, are not affected by this idiosyncrasy of human vision.

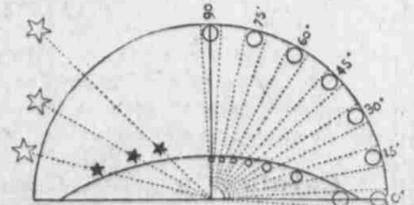


Diagram Showing Why the Sun Appears Smaller at the Zenith Than on the Horizon. The Semi-Circle Represents the Sun's Actual Path, Which Our Vision Flattens, as Shown.