French women for political rights. Many people are indifferent, and some vacillate in a kind of passive revolt, but in general we see a silent acquiescence in the idea that the new charter of women is to be granted. The adherents of this femininism are recruited not only from among working women, but the middle classes and the intellectual rich also are joining the ranks and flock to the standard even from that immemorial citadel of the old régime, the Faubourg Saint-Germain. Duchesses, representing the most aristocratic families in France, join societies whose aim is the political triumph of women."

The admission of women to public life will not destroy their womanhood, but rather deepen and enhance it, avers Mr. Finot, who sees in the political woman the great savior of society; and he enthusiastically breaks out in the following glowing prediction which rivals the apotheosis of the fair sex celebrated by Comte:

"The question put by many investigators of femininism, 'Has woman lost her womanliness by mixing in politics?' has been answered in the negative.

"In our puzzled wonder on being set face to face with a new condition of things we are too ready to leap to the conclusion that a woman before seizing the ballot must strip herself of those qualities she had hitherto possest, as a novice lays aside the attire of fashion before entering the cloister. But the woman will remain just as she was, as the man has done. Political sovereignty has not changed the latter into either an angel or a devil. His only change is that he has become master of his own destinies."

A glowing picture of the woman politician follows in Mr. Finot's eloquent argument:

"Let us imagine that the French woman at length presides like man over the future of her country. We see in a few years problems hitherto insoluble solved without delay. Depopulation, alcoholism, criminality, the squandering of the nation's money, nepotism, and those many social and political evils against which we have vainly fought for years will gradually be diminished until they disappear entirely. Let it be granted that the movement spreads from France to other countries, and the perpetual menace of war which never ceases to ruin and poison the existence of all the nations will vanish before the influence and vigilance of mothers watching over the health and life of their children.

"The diminution of armaments, followed by universal disarmament, can take place only with the concurrence of the women of every land. The political vote of wives and mothers will attain a solidarity which laughs at frontiers and will bring on, sooner than we think, a realization of the golden dream of peace."—*Translation made for* THE LITERARY DIGEST.

DISASTERS IN ENGLISH COAL-MINES

THE FRIGHTFUL accident at the Whitehaven coalmine by which more than a hundred miners lost their lives under circumstances of peculiar horror has led to proposals in the House of Commons for a more thorough inspection of mines by Government officials and for more efficient means to rescue miners in the hour of danger. According to the statistics furnished by Mr. Winston Churchill, the Home Secretary, as reported in the London *Times*, the casualty list of the mines for 1908 included 1,345 killed and 143,258 wounded. He stated that during the past thirty years the percentage of accidents has greatly decreased. In 1880 it stood at 2.97 per thousand—in 1908 it was 1.32 per thousand.

In comparing the accidents in the mines of various countries it appears from figures recently given on the floor of Congress that France and Belgium are more exempt than England, as is shown in the following table which gives the annual average number killed by mining accidents out of every 1,000 men employed during the past five years:

France	0.91
Belgium	1.00
Great Britain	1.25
Prussia	2.06
United States	3.39

Mr. Churchill illustrated the improved conditions of English mines and their operators by stating that thirty years ago it cost nine lives to win 1,000,000 tons of coal, at present it costs only four. The Home Secretary believes that accidents can be prevented if inspection were less of a sham than it is at present. He also advocates the establishment of rescue parties and rescue appliances, with practical drills—something like the fire drill in our schools. These are the Secretary's words:

"There would be very little advantage in men who understood the applicances going down into mines with which they were unacquainted, and there would be very little advantage in men who knew the mine using the appliances for the first time. It is therefore necessary to set on foot a system of rescue parties in every mine to be trained at regular periods in the use of those appliances and in other matters essential to rescue work."

Commenting on these words The Times says:

"This is an admirable step in the right direction, and the whole tone of the debate, in which colliery-owners as well as mining representatives took part, seemed to show that the bill promised by the Home Secretary would command the sympathy and support of all parties in the House of Commons. Even so overwhelming a disaster as that of Whitehaven will not be without its compensations if it should bring about a new charter of safety for all the miners of the kingdom."

The casualty figures given by Mr. Churchill bring this comment from the London *Daily Mail*:

"A death-roll of this dimension, and an amount of disablement on this scale, would cause profound sensation if they were concentrated in a single campaign. The facts sometimes escape notice when the danger is chronic, and the casualty lists are cumulative. Yet the death which attends the miner who goes down into the bowels of the earth to win coal is often more terrible than that which lies in wait for the soldier upon the field of battle. Speakers and writers often argue as if war were the only discipline for the development of the manly virtues.

"They forget that the daily work of the miners (to name one case only) presents dangers, involves courage, gives occasion for heroism, which are not less manly than those of the battlefield because they are deprived of its glamour or excitement. The Whitehaven disaster, which is still fresh in every mind, brought out vividly the perils which accompany the work of mining, and the pluck which it develops. It was one of the happy thoughts of the last reign to institute an Edward Medal for heroes of the mine to supplement the Victoria Cross for heroes of the battlefield."

The Pall Mall Gazette (London) thinks that all England has been roused by the hideous death-list of the Whitehaven disaster and that steps can not been taken too early to amend the abuses of negligence and short-sightedness with which coalmines in England have hitherto been worked. The dangers which threaten the miners are so frequent that one in every six is injured annually. The new bill is to order rescue apparatus in every mine. Thus we read:

"The Whitehaven disaster will certainly give an impetus to the improvement of safety in mines. It will probably surprize the public to hear from one of the miners' members that one collier in six meets with an accident each year, and from Mr. Churchill that the rate of fatalities has not diminished during the last decade. Both of those statements present a ground for energetic action, and possibly for the more extensive inspection advocated by Mr. Edwards and several of his colleagues. One lesson from Whitehaven, we are glad to see, is to be applied immediately, and that is the necessity for having a 'rescue apparatus'-that is, an appliance for enabling the rescuers to advance in foul air-within convenient access of every colliery. This invention appears to be still imperfect, and attended with some danger, but its capacity for usefulness has been sufficiently proved to justify its presence being required, and the spirit shown at Whitehaven and elsewhere shows that there will always be volunteers ready to take the risks of employing it. Mr. Churchill promises a short bill upon the subject for the present session, and there can be no doubt of its passing into law.'

PRODUCED BY UNZ ORG ELECTRONIC REPRODUCTION PROHIBITED

SCIENCE AND INVENTION

HOW TO KEEP COOL

S OME practical rules for avoiding discomfort in hot weather are given in *Good Health* (Battle Creek, Mich., July) by W. J. Cromie, instructor in gymnastics in the University of Pennsylvania. In the first place, says Mr. Cromie, we should be careful to avoid over-eating, a fault to which those engaged in sedentary occupations are specially prone. It is true that

the sedentary man needs food as much as the laborer, but owing to muscular inactivity he is not as capable of converting his food into assimilable materials. If he eats two or three times the amount the system requires, says Mr. Cromie, it will not be properly digested, and will cause fermentation, and if this be allowed to continue for some time, it poisons the system and eventually causes indigestion, nervousness, and sleeplessness. It is while in this condition that one suffers from extreme heat. Therefore:

" In warm weather, meats, oils, and fats should be reduced to a minimum or omitted entirely, and fruits, vegetables, and cereals should be substituted. The first and best way to keep cool is to avoid heavy and stimulating foods, and to reduce the amount of other articles of diet to that merely required for the sustenance of the body. Refrain from intoxicants and decrease or avoid tea, coffee, and condiments.

"A large percentage of the deaths is caused by infantile diseases, many of which could be prevented if precautionary measures were adopted. Feeding, with many mothers, is the panacea for all ills. When a child cries from the effects of having been overfed this surfeiting process is repeated—very often with disastrous results. A noted doctor has said that more babies are drowned in milk

than sailors in salt water. While this is probably a radical statement, still the best baby-food, milk, can be given to excess, and prove injurious. It is positively criminal to feed babies on meats and unripe fruits, especially in the summer."

Next the author takes up the subject of clothing, which he says should be light both in material and color during hot weather, altho when one becomes overheated, heavy clothing, such as an overgarment or a sweater, should be put on to prevent catching cold. He goes on:

"In occupations where one is subject to severe trials of strength, such as the army, farming, and boating, heavy clothing should be worn even in the summer. It is a very dangerous practise when one is overheated to ride in an open trolley or sit near an electric fan to cool off.

"Linen underclothing gives a pleasant feeling of coolness to the skin, and the perspiration evaporates more quickly. Underclothing should be well aired at night if one does not make a daily change. Too much clothing worn by day or night has a tendency to enervate and make one more susceptible to sudden changes in temperature.

"Sun- and air-baths are esteemed of great value by the Germans in their nature-cure system. The sun has a very beneficial effect on the skin and it is found that its rays are far superior to the use of cosmetics. Many persons in exposing their body to the rays of the sun take too much at one time and thus experience extreme annoyance. Air- and sun-baths when taken intelligently harden one's system and consequently enable one to withstand with more ease the hot days of summer.

"Daily, systematic exercise should not be omitted because the weather is warm. A little taken in the early morning followed by a cool bath will tend to make one cooler for the rest of the day. Muscular work is to the body what friction is to metal. The metal will rust if not used; the body will become diseased if not exercised. A master mind in a weak body is like a good blade in a poor knife-handle. Therefore, one who deems it inconvenient on account of time or location to take a little daily exercise will eventually have to take time to seek the advice of a physician.

"Proper dieting, sufficient exercise, rest and sleep, daily bathing and intelligent exposure to the air and sunlight, the avoidance of stimulants and a cheerful frame of mind, will insure

one a strong resisting-power so that he need have no fear of the extremes of either heat or cold."



Photograph by Haesler, Philadelphia.

HE TELLS US HOW TO KEEP COOL. The main point in Mr. W. J. Cromie's prescription is not to eat too much. THE OLDEST MUMMY

LTHO THE embalmer's art was practised in ancient Egypt perhaps as early as 3000 B.C. the earliest known mummy until recently dated only from about 1580 B.C. Now, however, there has been placed in the museum of the Royal College of Surgeons, in London, a mummy of the period of Snefra, found by Flinders Petrie in 1891 and dating back as far as 2700 B.C.-a jump backward of 1,100 years. In an address before the Royal Philosophical Society of Glasgow, Prof. Elliot Smith discusses this find and gives, incidentally, an interesting sketch of mummification in Egypt. We quote an abstract printed in The British Medical Journal (London, June 4). Says this paper:

"To appreciate the motives which impelled the ancient Egyptians to invent the art of embalming it is necessary to throw our minds back nearly sixty centuries. . . Then Egyptians were in the habit of burying their dead in shallow holes scraped in the soil immediately beyond the limits of the narrow strip

of cultivated land. As the result of placing the body in hot dry sand, it frequently happened that, instead of undergoing a process of decay, it became desiccated and preserved in an incorrupted form for an indefinite time. The burial of valuable and useful objects with the dead naturally led to grave-robbing, which was already common in the earliest known prehistoric times in Egypt. This plundering of graves must have taught the people at large that the forces of nature were often sufficient to preserve a dead body. In this way it became a part of the religion of the Egyptians to regard the preservation of the body as the condition of the attainment of immortality.

"The early Egyptians learned that the body when placed in a coffin or buried in a rock tomb usually underwent decomposition. It was a wide-spread belief that the stone 'ate the flesh' —hence the word *sarcophagus*. Artificial mummification, therefore, had its origin in an attempt to deprive the grave of its victory."

If this hypothesis is correct, evidence of embalming would naturally be found soon after the invention of rock tombs. But Professor Smith found in the Cairo Museum no authentic mummy earlier than about 1580 B.C. There was thus a gap of eighteen centuries between the time when, on his hypothesis, the earliest attempts at embalming were made, and the most ancient actual mummy in the Cairo Museum. Mummies at the Sakkara and Lisht Pyramids were much earlier, but were so fragile that it was not possible to move them without reducing them to bones and powder.

The mummy in the Royal College of Surgeons is therefore more than eleven centuries older than any other actual