



John K. Selleck

Mr. Selleck is the genial, popular and efficient business manager of the University of Nebraska.

He is of the "modern" type that cooperates so closely with the coaching staff that he is actually a part of it.

We present him to you here as an example of efficiency—one which might be copied for the betterment of athletics in general.

We mention this because their advance ticket sales, under his supervision, are astounding and "Cornhusker" prestige is always at the peak.

### Help Prevent Fumbling

Firm-Grip will help prevent fumbling in rainy weather when fields are damp or muddy.

Of course, there is nothing perfect for this condition, because no two situations are exactly typical—but Firm-Grip is proving of great help to many coaches.

Firm-Grip is a paste made of rosin and other adhesive chemicals. After the game it can be removed by using alcohol or tape remover.

It comes in a four ounce can at 50c or pound can at \$1.35.

### Don't Jerk Tape off Delicate Wounds

Athletic Tape Remover is prepared for the easy removal of adhesive tape. It works in just one minute. It is recommended particularly where adhesive must be used several times. Many sores spread by the tearing of the skin, where tape is removed (strong arm method). Some coaches use benzine or gasoline but these products kill the natural oil of the skin and are therefore injurious. Every training room and gym should have at least one pint of Athletic Tape Remover always ready for use.

Nature's chief stimulants are:—cold air, sunlight, pure air, physical exercise, interest and joy.

## The Skin--Its Function, and the Action of Rubdown

The cells of the epidermis which lies next to the dermis are living cells. They are kept alive by nourishment brought by the liquid portion of the blood in the blood vessels of the neighboring papillae. These cells grow and, when they have matured, divide and produce new cells. The multiplication of the cells would cause the epidermis to increase greatly in thickness, were not the outer cells constantly worn away by friction. This happens the more easily because the outer cells are dead cells. The new cells forming beneath push them so far away from the dermis that nourishment from the blood no longer reaches them, and they die.

By this constant loss and renewal, the body always has a comparatively new outer skin. This physiological shedding of the cells of the epidermis is aided by bathing the skin.

Lodged among the fibers of the dermis and supported by them are (1) a fine network of blood vessels; (2) a fine network of nerves; (3) several million sweat glands; and (4) a great number of oil glands.

The blood vessels of the skin are fine tubes which carry the blood supply to and from the skin. These have muscles in their walls, and, when stimulated through the nerves of the skin, change their size. Warmth causes an increase in size of the vessel and more blood is brought to the skin; cold causes a decrease in size and the opposite effect is produced.

The nerves of the skin serve two main functions. One function is to control the size of the vessels by responding to changes in temperature; the other is to make us aware of the character of the things we touch. The nerves of the skin of the fingers with this latter function are more sensitive than those in any other part of the body.

The sweat glands, or perspiratory glands, are little tubes, lined with epithelial cells, which pass through the epidermis and down into the dermis. The tube is coiled into a ball in the true skin, where it is surrounded by a network of capillaries. Its course through the epidermis is spiral like the turns of a corkscrew. Its opening on the surface is called a pore. The coiled part is supplied with nerves which stimulate the cells to secrete perspiration. The cells obtain their supply of material from the blood, and this supply is controlled by the nerves which regulate the size of the arteries leading to the skin.

The sweat glands take up water and various other substances from the blood and pour them out on the surface of the epidermis. The water evaporates, but the salt and other solids in the perspiration are depos-

ited on the skin. Usually the amount of perspiration from each gland is so small that it evaporates as soon as it reaches the surface, and hence does not become visible. On this account it is called insensible perspiration; it becomes sensible perspiration when it is formed rapidly in warm weather or during vigorous exercise. It does not evaporate so quickly in a moist atmosphere; and those who live near the seacoast or in rainy regions show more perspiration than those who live in dry regions. The evaporation of this moisture on the skin cools the body. The amount of perspiration averages about one and one-half pints a day.

The oil glands deposit oil which flows out of the mouth of the glands, rendering the epidermis flexible and less penetrable by water and prevents it drying out by evaporation and cracking open.

Realizing that there are several million sweat glands and a great number of oil glands constantly working to eliminate impurities from the body and "tune-up" the skin, we should consider seriously the oily substances used in rubdowns and liniments.

We should consider this seriously because—heavy "fixed oils"\* do clog these minute pores and immediately retard normal functioning.

We have spent twenty-five years in research and experiment on liniments and rubdowns and we can positively assure you that Cramer's Athletic Liniment and Cramer's Rubdown give proper stimulation without clogging the pores or hindering the function of the skin.

\*Fixed oils are those which are not soluble in water in any degree. Those commonly used as bases for rubbing that should not be used are cottonseed oil, olive oil, castor oil or cocoa butter. All of these clog the pores of the skin.

### Track Articles in Each Issue

In each copy of the "FIRST AIDER", you will find articles by prominent track coaches.

One reason for running these throughout season is that training for track should start early and continue throughout the winter.

A majority of coaches keep the "FIRST AIDER" "on file" for ready reference and refer back to these stories and methods of treatment from time to time.

The greatest thief this world has ever produced is procrastination, and he is still at large.—H. W. Shaw.