

DR. ROSSITER TELLS OF PREDIGESTION CHANGES

Good Eating Depends on Quality of Taste and Mastication—Physician Discusses Function of Saliva, Flow of Which May Be Checked by Fear.

THE materials found in nature for the service of man are in a more or less crude state. Iron mixed with rock deep in the earth is of little use. But when mined, melted and made into steel, it can be manufactured into all kinds of machinery and implements, of the greatest utility. The tree has to be cut down, sawed, seasoned, planed, polished and worked over before a beautiful piece of furniture appears. A diamond found in the earth is covered by an opaque layer of stone, which has to be removed; then it must be cut and polished before it is called a gem.

This is all very simple when compared to the changing of food and drink into living, moving bodies. To turn bread and butter, potatoes, meat, eggs, fruit, cereals and all the other foods we eat, into suitable materials for body-building, is one of the greatest and most complex of all the strange and mysterious processes going on in the living body.

The digestive system especially is adapted to do this work. In simple words, digestion means the turning of foodstuffs into a form suitable for body building. Food in the stomach is still outside of the body. Food in the intestines is still outside of the body. Food must enter the blood before it can be carried to the cells that make up the body. A grain of wheat, or even that wheat converted into so fine a material as flour, cannot enter the blood. It cannot even enter the body. Food that remains in the stomach is no more in the body than if it were in the coat pocket. In fact, if it is going to remain in the stomach a very long time it would be a whole lot better for the body if it had been put into the coat pocket.

Food Changes Needed.
Before food can enter the body and become a part of it, it must undergo certain changes. It must be so changed that it can pass through the walls of the intestines, through the liver and on into the blood, and even more than that, it must pass from the blood through a fluid called the lymph to feed the living cells that make up the total of our bodies. This last step is called assimilation. Some people may have very good digestion but poor assimilation, and when the assimilation is poor the body is poorly nourished.

So, if food fails to undergo digestion, it never enters the body. It never really becomes food, and it does no more good than if held in the palm of the hand. The rough materials must be taken and worked over, and not only finely divided, but put through special chemical changes that really convert them into other substances; thus the digestive system is a living manufacturing plant, preparing materials for vital building. The mouth cavity may be said to be the receiving-room, the sorting-room, the preparing-room. It is well to note that while a man has 30 feet of alimentary canal, only about three inches of it is under his immediate control. After anything has passed this three inches there is neither recall, initiative nor referendum by any act of will.

Also, for a wise and sufficient reason the taste buds were placed within this three inches of canal. If most people overeat with taste buds scattered over the first three inches of their alimentary canal what would they do if this tasting apparatus were distributed over the entire 30 feet of food canal?

Taste Buds on Tongue.
But that most people think they have taste buds down the oesophagus and on into the stomach at least is more than an even guess, as shown by the haste with which they precipitate their food down the gullet. The peptic cells in the stomach must think at times that there has been an earthquake, by the way bricks, mortar and two-by-fours come tumbling down from the receiving-room. It is very evident that some people use the mouth purely as a receiving-room and are in a mighty hurry to pitch their food down the gullet. One of the first conditions to good digestion is to have a good tasting apparatus. The first real pleasure of eating is the tasting. The taste buds are on the tongue, but some people have so much coating on the tongue that they cannot taste food well. Taste buds that are all buried under gummy films and their reactions are not in shape to give any one real pleasure in eating.

Also in this receiving room there are, or should be, 32 teeth. The second condition to good digestion is mastication or insalivation of food. The teeth should break the food up into very fine particles, and even grind it to a pulp. With each new breaking up of the food the taste buds get a new stimulus. Mastication is one of the very important stages of digestion and one that is very sadly neglected. Swallowing improperly masticated food has much to do with stomach troubles. The hasty eaters are in truth about the only people who get "square meals," and it is only a matter of time when the corners will dig into them and lacerate their sides as well as their feelings.

Saliva Has Function.
A third important function in connection with this receiving-room is the saliva. Any substance in the mouth will excite a flow of saliva, but this watery flow in the mouth varies according to what is in the mouth. Food excites a flow of saliva that has the power to begin the first chemical stage of digestion. The quality of this saliva varies greatly in different people. I have tested the saliva of many persons in whom saliva was practically absent. It had in it no starch and no sugar. The purpose of the saliva is to convert starch into forms of sugar. This can be demonstrated by chewing a crust of bread. If you will chew the crust for a few minutes and not be in too much of a hurry to swallow, he will notice a sweet taste in the mouth. This is the cause of the flow of the saliva upon the starch or dextrin in the crust.

That the purpose of digestion may not be defeated, it is ever well to bear in mind:
First, that the taste buds should be allowed sufficient time to taste the food, to keep on tasting the same mouthful so long as it has a pleasurable taste.
Second, that the teeth are in the mouth and not in the stomach, and should be used for breaking up the food; one should keep on chewing until the food is a pulp. The more the food is chewed and masticated the better is the body nourished, and the less likely is one to overeat. The appetite is satisfied with less food. There is less waste of material and energy.
Third, that masticating the food mixes in the saliva and aids materially in the chemistry of digestion.

HEALTH AND EFFICIENCY. HOW TO MAINTAIN BOTH.

By Frederick M. Rossiter, D. S. M. D.

Questions pertaining to health, hygiene and the prevention of disease will be answered in this column. When for lack of space and when questions are not suitable, answers will be made by mail, providing a stamped envelope with address is enclosed. No questions will be considered without the name and address of the sender. No diagnosis will be made in this column.

that he does not give the saliva time to flow or to mix with his food, and so washes it down with water, milk, tea, coffee, or beer, may not lose his head physically right away, but he certainly loses it in many other ways, and he is surely going to lose out in the race with his competitors.

Food that has received the proper attention in the mouth and so has undergone the first stage of digestion is passed on to the next room in this living manufacturing plant, namely, the mixing-room, which is the stomach. When the food is being prepared in the mouth, the question of liquids other than that furnished by the salivary glands arises. To those who are accustomed to spend much time masticating their food much drinking at meal time is the rule.

It seems to be quite natural, or an acquired habit, for human beings to drink while eating their regular food. I know of no animal in its natural state that drinks every few minutes while eating.

When one has good digestion there is probably no harm in taking a reasonable amount of fluid at meal time, providing it is not used to take the place of the first stage of digestion. The great abuse of drinking at meal time is in washing the unmasticated food into the stomach. If the fluid is taken after the food has been swallowed, no harm is likely to result in normal digestion.

To wash food down simply because one is in a hurry, is a thoroughly bad practice and one that invites trouble. Cold Water Retards.

Digestion takes place only at a temperature of about 100 degrees, and so the drinking of one, two or three glasses of cold water during a meal is going to put a stop to the digestive process until the contents of the stomach have been warmed up again to the proper temperature.

An excess of fluid poured into the stomach in a short space of time dilutes the digestive contents, and may be a hindrance to good digestion. If one has an excess of digestive fluids, or if there be too much hydrochloric acid this dilution is a help.

However, a person with slow and poor digestion is better off to reduce the amount of fluid taken during a meal, whether it be hot or cold.

So if water is taken as a drink at meal time and not to wash the food down, it results in no harm at all when the digestion is good. But chewing food in a mouthful of fluid stops the flow of saliva, and this in turn hinders the stomach in producing all the juices it should.

During the entire process of stomach digestion that organ is slowly undergoing contraction and relaxation in various directions. By this means the food is brought into contact with the gastric juice which is poured out from its walls and the food is drenched from all sides. In the course of a day the stomach produces from 10 to 20 pints of digestive juices. If it is not all used it is reabsorbed and nothing is lost. There are instances where this does not occur and then there is trouble.

Starch digestion which began in the mouth continues for a few minutes in the mixing-room and then stops until the food reaches the intestine. However, the gastric juice helps to set the starch free so it can be acted upon later. Fat and sugar are also among the foods that are not acted upon by the stomach juices. These must be acted upon by the intestinal secretions. Hence it can be seen that if the stomach digestion is imperfect, or even if it fails altogether, the intestine is provided with the power to digest all classes of food. There are instances in which the stomach has been shown to have no power of effect upon food at all and yet the digestion in its final stages was excellent.

Digestion Takes Time.
After food has been churned around the walls of the stomach for a time and has become suitably acted upon by the gastric juices it is slowly dotted out to the intestines. Here is an interesting fact. The pylorus (meaning gate keeper, and it is truly named) seems to know just when to let the contents of the stomach pass into the intestines. It lets only a little pass at a time, and then only the part that is ready to enter upon the next stage of digestion.

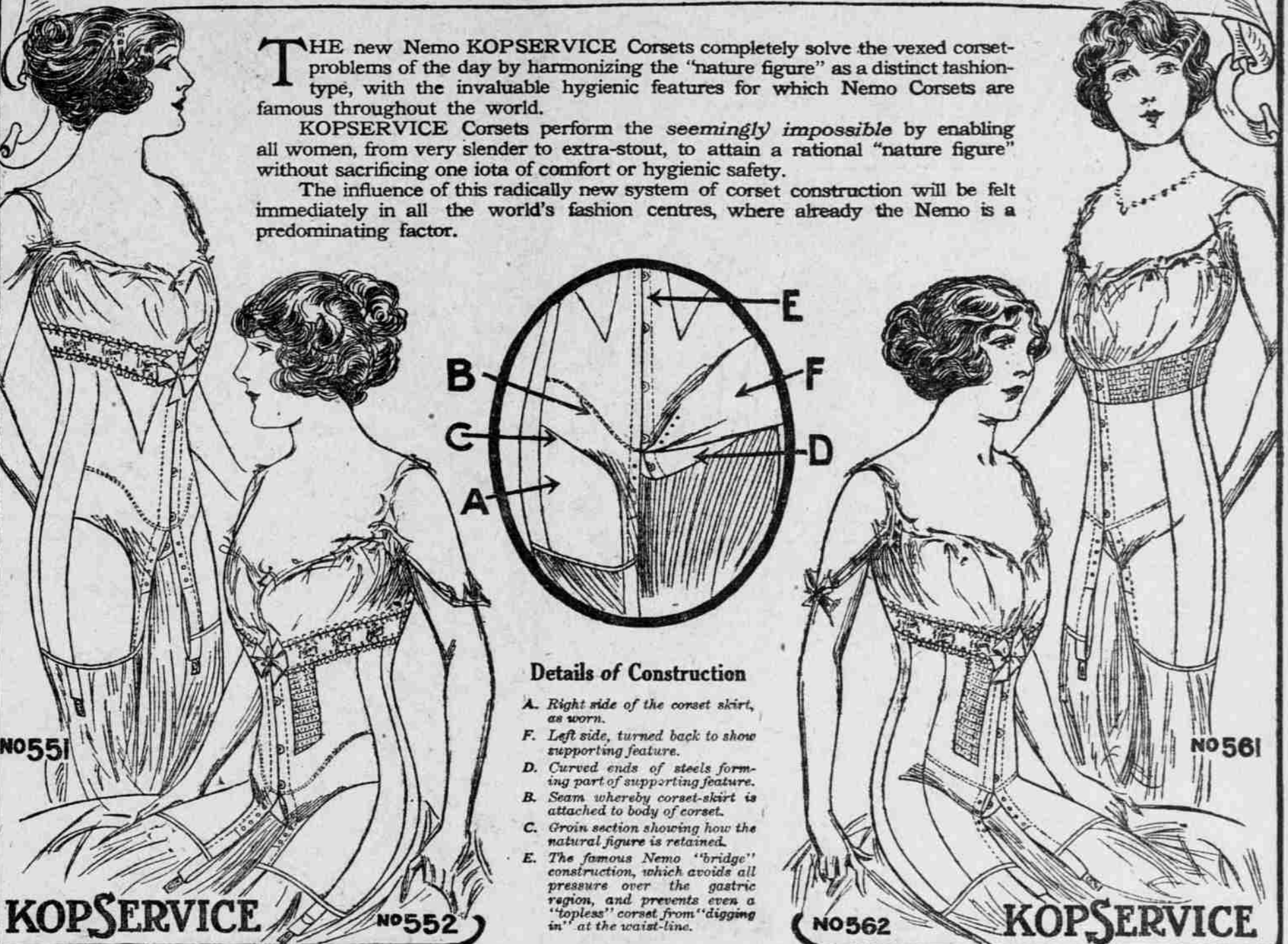
Under normal conditions food remains in the stomach from one to six hours, according to the time that each class of foods requires to be prepared before it is ready to pass. This period of digestion varies according to the digestibility of any particular food, the condition of the stomach, and the condition of the mind.

One food is not harder to digest than another. It either takes longer or requires more digestive juices. Some foods require more digestive intensity than others. This might be said of

Nemo KOPSERVICE

ENTIRELY NEW

OF VITAL IMPORTANCE TO ALL WOMEN



Details of Construction

- A. Right side of the corset skirt, as worn.
- F. Left side, turned back to show supporting feature.
- D. Curved ends of steels forming part of supporting feature.
- B. Seam whereby corset skirt is attached to body of corset.
- C. Groin section showing how the natural figure is retained.
- E. The famous Nemo "bridge" construction, which avoids all pressure over the gastric region, and prevents even a "topple" corset from "digging in" at the waist-line.

For FULL Figures

These two models combine the fashion-type known as the "nature figure" with the highest development of the perfect physical support for which the Nemo Hygienic Corset System is famous:

No. 551 For stout women. Combines the comfort of the old corset with the newest fashion-effects. Low bust; front steels with incurved ends; a new and clever device that gives perfect abdominal support. Very long skirt, coutil, sizes 22 to 36. **\$5.00**

No. 552 KOPSERVICE CORSET, for full figures. Similar in general construction to No. 551, but with lower bust and front steels somewhat shorter below waist-line. Front-gorges of semi-elastic Lastikur Cloth, extending far below the waist-line, give additional freedom for the natural figure. Of fine white coutil, sizes 22 to 36. **\$5.00**

These are beyond question the best corsets ever made for stout women, and represent the greatest corset-values ever offered at \$5.00.

KOPSERVICE construction produces practically two corsets in one.

The corset-body, in the front, being free from the influence of the corset-skirt and hose supporters, is self-adjusting, and remains firmly in proper place, no matter what the attitude or pose.

The corset-skirt, hanging free from the front of the corset, with the attached hose supporters, strongly reduces the upper limbs, but is made easy and comfortable by the semi-elastic Lastikur Cloth, which provides for ample "spread" when seated.

In the models for stout figures (Nos. 551 and 552), abdominal support given by curved front steels and narrow converging bands, which give perfect hygienic support from underneath.

For SLENDER and MEDIUM

The construction of these corsets provides for the extreme poses of the "debutante slouch." They give perfect hygienic support, and guard the figure against permanent loss of symmetry, while allowing absolute freedom of movement:

No. 561 For slender and medium figures. Practically "topless" entire corset above waist-line is of elastic Lastikur fabric, lightly boned. Very long skirt, with Lastikur-Back. Absence of boning and lightness of material reveal the natural lines. Suede batiste, sizes 20 to 30. **\$5.00**

No. 562 For medium figures. Very low bust; extra-long skirt, with Lastikur-Back. Inserts of semi-elastic Lastikur Cloth, extending three inches above the waist-line and five inches below, give wonderful ease and the "natural" lines. This effect is ENTIRELY NEW. As in No. 561, the new short front gives all needed figure-support. Suede batiste, in sizes 20 to 30. **\$5.00**

These corsets represent style and hygienic values that cannot be obtained in any other corset at any price. Now in all leading stores, and will soon be distributed and on sale everywhere.

[B] The Nemo Hygienic-Fashion Institute, New York.

lobster or cheese. Shakespeare said that
Cheese is a mighty elf,
Digging all things but itself.

The Party Gown.
Nearly every girl realizes that the average party gown gets more hard usage when hanging in the crowded wardrobe than while it is being actually worn. And if you can teach your wardrobe to be a little more intelligent, the whites will not be so beat to the same lightness unless the silk is entirely removed. If a piece of damp white is touched to the remaining silk it will be removed at once. If a piece of egg shell gets into the mixture, the egg shell itself made to touch the offending scrap will cause the two to form an adhesion, and it can be brought out of the dish at once.

Removing Yolks From Eggs.
In separating the white from the yolk of eggs, it often happens that just a little of either is scattered and will spoil the use of the parts, as, for instance, the whites will not beat to the same lightness unless the yolk is entirely removed. If a piece of damp white is touched to the remaining silk it will be removed at once. If a piece of egg shell gets into the mixture, the egg shell itself made to touch the offending scrap will cause the two to form an adhesion, and it can be brought out of the dish at once.

Above the Sordid Grind.
The thing one loves to do is never tiresome, and if you can teach your wardrobe to be a little more intelligent, the whites will not be so beat to the same lightness unless the silk is entirely removed. If a piece of damp white is touched to the remaining silk it will be removed at once. If a piece of egg shell gets into the mixture, the egg shell itself made to touch the offending scrap will cause the two to form an adhesion, and it can be brought out of the dish at once.

Girls! HAVE BEAUTIFUL, LUSTROUS, FLUFFY HAIR---25 CENT DANDERINE
Removes every particle of dandruff, stops falling hair and is a delightful dressing.

To be possessed of a head of heavy, beautiful hair; soft, lustrous, fluffy, wavy and free from dandruff is merely a matter of using a little Danderine. It is easy and inexpensive to have nice, soft hair and lots of it. Just get a 25 cent bottle of Knowlton's Danderine now—all drug stores recommend it—apply a little as directed and within 10 minutes there will be an appearance of abundance, freshness, fluffiness and an incomparable gloss, and awaits everyone who tries this—Adv.

but if the mind is kept above it, by working towards a more efficient way of performing the task, or if not that, train the mind to do the homely things with the thoughts on something else, you will obtain much of the usual weariness, especially in the house work routine.

Comb Cases.
Absolutely well kept combs are now kept in special cases made of two flat pieces in tortoise shell, silver, ivory or whatever material is used for the top and sides, welded together at the ends and along one side, leaving the other side open. While the comb, after having been thoroughly washed and dried, slips snugly into this case, it easily slides out when the receptacle is held upside down.

Honeycomb Stitch.
The honeycomb stitch is used to fill in backgrounds or an irregular space, is very easily made, for it merely consists of buttonhole stitches taken about one-fourth of an inch apart. These stitches are made in rows, in each succeeding row the stitches are taken in the center of the preceding ones.

Comb Cases.
Absolutely well kept combs are now kept in special cases made of two flat pieces in tortoise shell, silver, ivory or whatever material is used for the top and sides, welded together at the ends and along one side, leaving the other side open. While the comb, after having been thoroughly washed and dried, slips snugly into this case, it easily slides out when the receptacle is held upside down.

Comb Cases.
Absolutely well kept combs are now kept in special cases made of two flat pieces in tortoise shell, silver, ivory or whatever material is used for the top and sides, welded together at the ends and along one side, leaving the other side open. While the comb, after having been thoroughly washed and dried, slips snugly into this case, it easily slides out when the receptacle is held upside down.

Comb Cases.
Absolutely well kept combs are now kept in special cases made of two flat pieces in tortoise shell, silver, ivory or whatever material is used for the top and sides, welded together at the ends and along one side, leaving the other side open. While the comb, after having been thoroughly washed and dried, slips snugly into this case, it easily slides out when the receptacle is held upside down.

Comb Cases.
Absolutely well kept combs are now kept in special cases made of two flat pieces in tortoise shell, silver, ivory or whatever material is used for the top and sides, welded together at the ends and along one side, leaving the other side open. While the comb, after having been thoroughly washed and dried, slips snugly into this case, it easily slides out when the receptacle is held upside down.

Comb Cases.
Absolutely well kept combs are now kept in special cases made of two flat pieces in tortoise shell, silver, ivory or whatever material is used for the top and sides, welded together at the ends and along one side, leaving the other side open. While the comb, after having been thoroughly washed and dried, slips snugly into this case, it easily slides out when the receptacle is held upside down.

Comb Cases.
Absolutely well kept combs are now kept in special cases made of two flat pieces in tortoise shell, silver, ivory or whatever material is used for the top and sides, welded together at the ends and along one side, leaving the other side open. While the comb, after having been thoroughly washed and dried, slips snugly into this case, it easily slides out when the receptacle is held upside down.

Comb Cases.
Absolutely well kept combs are now kept in special cases made of two flat pieces in tortoise shell, silver, ivory or whatever material is used for the top and sides, welded together at the ends and along one side, leaving the other side open. While the comb, after having been thoroughly washed and dried, slips snugly into this case, it easily slides out when the receptacle is held upside down.

Comb Cases.
Absolutely well kept combs are now kept in special cases made of two flat pieces in tortoise shell, silver, ivory or whatever material is used for the top and sides, welded together at the ends and along one side, leaving the other side open. While the comb, after having been thoroughly washed and dried, slips snugly into this case, it easily slides out when the receptacle is held upside down.

Comb Cases.
Absolutely well kept combs are now kept in special cases made of two flat pieces in tortoise shell, silver, ivory or whatever material is used for the top and sides, welded together at the ends and along one side, leaving the other side open. While the comb, after having been thoroughly washed and dried, slips snugly into this case, it easily slides out when the receptacle is held upside down.

Comb Cases.
Absolutely well kept combs are now kept in special cases made of two flat pieces in tortoise shell, silver, ivory or whatever material is used for the top and sides, welded together at the ends and along one side, leaving the other side open. While the comb, after having been thoroughly washed and dried, slips snugly into this case, it easily slides out when the receptacle is held upside down.

Comb Cases.
Absolutely well kept combs are now kept in special cases made of two flat pieces in tortoise shell, silver, ivory or whatever material is used for the top and sides, welded together at the ends and along one side, leaving the other side open. While the comb, after having been thoroughly washed and dried, slips snugly into this case, it easily slides out when the receptacle is held upside down.

Comb Cases.
Absolutely well kept combs are now kept in special cases made of two flat pieces in tortoise shell, silver, ivory or whatever material is used for the top and sides, welded together at the ends and along one side, leaving the other side open. While the comb, after having been thoroughly washed and dried, slips snugly into this case, it easily slides out when the receptacle is held upside down.

Comb Cases.
Absolutely well kept combs are now kept in special cases made of two flat pieces in tortoise shell, silver, ivory or whatever material is used for the top and sides, welded together at the ends and along one side, leaving the other side open. While the comb, after having been thoroughly washed and dried, slips snugly into this case, it easily slides out when the receptacle is held upside down.

Comb Cases.
Absolutely well kept combs are now kept in special cases made of two flat pieces in tortoise shell, silver, ivory or whatever material is used for the top and sides, welded together at the ends and along one side, leaving the other side open. While the comb, after having been thoroughly washed and dried, slips snugly into this case, it easily slides out when the receptacle is held upside down.

Comb Cases.
Absolutely well kept combs are now kept in special cases made of two flat pieces in tortoise shell, silver, ivory or whatever material is used for the top and sides, welded together at the ends and along one side, leaving the other side open. While the comb, after having been thoroughly washed and dried, slips snugly into this case, it easily slides out when the receptacle is held upside down.

Comb Cases.
Absolutely well kept combs are now kept in special cases made of two flat pieces in tortoise shell, silver, ivory or whatever material is used for the top and sides, welded together at the ends and along one side, leaving the other side open. While the comb, after having been thoroughly washed and dried, slips snugly into this case, it easily slides out when the receptacle is held upside down.

Comb Cases.
Absolutely well kept combs are now kept in special cases made of two flat pieces in tortoise shell, silver, ivory or whatever material is used for the top and sides, welded together at the ends and along one side, leaving the other side open. While the comb, after having been thoroughly washed and dried, slips snugly into this case, it easily slides out when the receptacle is held upside down.

Comb Cases.
Absolutely well kept combs are now kept in special cases made of two flat pieces in tortoise shell, silver, ivory or whatever material is used for the top and sides, welded together at the ends and along one side, leaving the other side open. While the comb, after having been thoroughly washed and dried, slips snugly into this case, it easily slides out when the receptacle is held upside down.

Comb Cases.
Absolutely well kept combs are now kept in special cases made of two flat pieces in tortoise shell, silver, ivory or whatever material is used for the top and sides, welded together at the ends and along one side, leaving the other side open. While the comb, after having been thoroughly washed and dried, slips snugly into this case, it easily slides out when the receptacle is held upside down.

Comb Cases.
Absolutely well kept combs are now kept in special cases made of two flat pieces in tortoise shell, silver, ivory or whatever material is used for the top and sides, welded together at the ends and along one side, leaving the other side open. While the comb, after having been thoroughly washed and dried, slips snugly into this case, it easily slides out when the receptacle is held upside down.

Comb Cases.
Absolutely well kept combs are now kept in special cases made of two flat pieces in tortoise shell, silver, ivory or whatever material is used for the top and sides, welded together at the ends and along one side, leaving the other side open. While the comb, after having been thoroughly washed and dried, slips snugly into this case, it easily slides out when the receptacle is held upside down.

Comb Cases.
Absolutely well kept combs are now kept in special cases made of two flat pieces in tortoise shell, silver, ivory or whatever material is used for the top and sides, welded together at the ends and along one side, leaving the other side open. While the comb, after having been thoroughly washed and dried, slips snugly into this case, it easily slides out when the receptacle is held upside down.

Comb Cases.
Absolutely well kept combs are now kept in special cases made of two flat pieces in tortoise shell, silver, ivory or whatever material is used for the top and sides, welded together at the ends and along one side, leaving the other side open. While the comb, after having been thoroughly washed and dried, slips snugly into this case, it easily slides out when the receptacle is held upside down.

Comb Cases.
Absolutely well kept combs are now kept in special cases made of two flat pieces in tortoise shell, silver, ivory or whatever material is used for the top and sides, welded together at the ends and along one side, leaving the other side open. While the comb, after having been thoroughly washed and dried, slips snugly into this case, it easily slides out when the receptacle is held upside down.

Comb Cases.
Absolutely well kept combs are now kept in special cases made of two flat pieces in tortoise shell, silver, ivory or whatever material is used for the top and sides, welded together at the ends and along one side, leaving the other side open. While the comb, after having been thoroughly washed and dried, slips snugly into this case, it easily slides out when the receptacle is held upside down.

Comb Cases.
Absolutely well kept combs are now kept in special cases made of two flat pieces in tortoise shell, silver, ivory or whatever material is used for the top and sides, welded together at the ends and along one side, leaving the other side open. While the comb, after having been thoroughly washed and dried, slips snugly into this case, it easily slides out when the receptacle is held upside down.

Comb Cases.
Absolutely well kept combs are now kept in special cases made of two flat pieces in tortoise shell, silver, ivory or whatever material is used for the top and sides, welded together at the ends and along one side, leaving the other side open. While the comb, after having been thoroughly washed and dried, slips snugly into this case, it easily slides out when the receptacle is held upside down.