

## NEW SKIN FROM EGG SHELLS

American surgeons are greatly interested in a discovery by Dr. Max Staller, of Mount Sinai Hospital, Philadelphia, that the white lining or membrane of egg shells can be used as a substitute for human skin in grafting operations. The grafting of skin in curing burns and scalds is a popular mode of treatment in the American hospitals, and surgeons have been searching for a skin substitute for some time.

Dr. Staller apparently has discovered an adequate substitute, and it is claimed a revolution will be worked in the method of doctoring scalds and burns by the use of the egg membrane. Experiments have been proceeding at Mount Sinai Hospital for three months, and every case treated has been successful. The lining of egg shells is really the skin of embryonic chickens, and contains cells similar to the human skin. When placed on a burned surface the cells multiply, and the membrane becomes larger and larger until it joins with other pieces placed on the wound at distances of an eighth to a quarter of an inch. In the course of weeks, the surface is covered with new skin.

The most important case treated at the hospital was that of a woman suffering from severe burns on the back, neck and arms. Skin grafting was the only chance for her recovery, but it was impossible to secure a volunteer ready to part with sufficient skin for transfer to the patient. Dr. Staller had been experimenting with egg membranes in minor cases, and he resolved to try the treatment on the woman as a last resort. Several dozen eggs were procured and the contents removed. The white lining on the inside of the shells was then carefully secured and cut into small pieces. These were placed on the burned surface, and a wet dressing was applied.

When, some time later, the dressing was removed, it was found that the larger number of pieces had started to grow. In the course of the next few weeks the cells grew larger, and the membrane covered the entire surface. Now the woman is almost entirely recovered, and there are few scars to show the nature of the wound. The new skin is a trifle finer than the human skin, but appears to be strong and healthy.

Short cuts to fortune are often bottomless cuts.

That soul is truly lost that gathers darkness of the light.

## Glasgow's Traffic

On alighting at Glasgow's Central Railway Station, says the Canadian Trade Commissioner, the stranger finds himself confronted with the full stream of the city's traffic as it converges at the junction of Argyll, Union and Jamaica streets. It may not be compared with the number and variety of vehicles to be seen at the Bank Corner in London, or on Broadway, New York; nevertheless there are features about this ebb and flow of traffic which not only makes it the busiest in Scotland, but one of the most remarkable in the world. On an average eight tramcars per minute scurry across this part of the city, led or followed by a seemingly endless line of motor cars, taxicabs, broughams and hansoms, or lorries, carts, and vans. From an early hour in the morning until late at night the ebb and flow goes on—yet smoothly and orderly as in a well regulated state procession. Nor is the human note wanting.

One-fourth of Scotland's total population is found within the city of Glasgow, and when one has seen the Argyll street corner on a Saturday night the presumption is pardonable if it is imagined that every man, woman, and child of Glasgow's round million had come out. How is it so skillfully yet silently controlled? The secret is found in a scientific code of laws which ripe experience and shrewd administration have brought to the level of a fine art.

Glasgow's noisiness is proverbial; but it is much misunderstood. The stranger to London on entering the metropolis is agreeably surprised by the absence of the "roar of traffic" which grates upon the ear and shatters the nerves. Smooth paving—be it wood, asphalt, etc., is used to an extremely limited extent in Glasgow; whereas London's streets are mostly of wood. The horses in the British capital thus can wear shoes without heel or toe clip as in Scotland; while in the towns and cities north of the Tweed it is alleged to be the invariably practice to place much heavier burdens upon the horses than in England.

Thus, with thoroughfares resounding with the tramp of ponderous shoes on the feet of the stoutest and sturdiest of the strong Clydesdale breed of horses, there is small wonder that Glasgow re-echoes a thousand noises of which other cities are innocent. But there are signs of an improvement; and some day the traffic may be conducted on streets which resemble tables.

Pedestrian traffic is regulated by what is known as "habit." For generations the maxim has been "keep to the right," until today the well-worn public notices are now practically unread. The streams flow on in two directions—steering a course to the right.

Not so with vehicles. Collisions do take place, but there are so seldom as to be singular. The controlling system is nevertheless a trifle complicated, yet it works out smoothly to the general good. Several acts of parliament have been secured for the regulation of street traffic, the most important and comprehensive of which is known as "The Glasgow Police Act, 1866." Many additions have been made since; while the advent of the electric tramcar and latterly the motor car and taxicab, led also to still further amendments and alterations.

As is known, Glasgow possesses an unrivalled tramway service which carries nearly 5,000,000 passengers weekly—and, naturally, the great majority of vehicles to be dealt with, in the central districts especially, are the electric cars. These are of various types—single and double-deckers.

In the most congested parts of the city the speed is restricted to six miles per hour, in others eight miles are permitted; while between 10 and 12 are sanctioned in still quieter streets. On the country routes a 16-mile limit is the maximum.

All other vehicular traffic is controlled under the Glasgow Police Act; but the tramway bylaws—which have the approval of the sheriff—stipulate that all slow-going traffic (vehicular) must keep clear of the tramway track. Thus heavily laden lorries or carts are not permitted to be drawn for a distance on the car line, and any driver who wilfully disregards the warning bell of the tramcar motorman is liable to a monetary penalty or imprisonment. But, of course, slow-going traffic is not absolutely prohibited on the tram track. All vehicles must proceed on the left hand side of the thoroughfare; but in passing others they must do so on the right hand side of the vehicles in front.

Eighty members of the city police force are reserved for regulating the traffic. They are known as "pointsmen," and are placed in the centre of the thoroughfare at each busy crossing. They have absolute control over all the traffic, pedestrian and vehicular, and under the local act any one disobeying or disregarding the constable's instructions is liable to a 40 shillings fine. Owing to the narrowness of most of the streets there are few "island platforms" at busy crossings—indeed in the busiest centres there are none; but the controlling system is so smartly conducted that although as many as 40 tramcars may pass a given point in an hour, accidents are extremely rare. At tramcar stations slow-going and other vehicular traffic must also stop until the cars move off, and care must be taken to enable car passengers to get through between the stationary vehicles either to or from the tramways.

When the vehicles should stop or proceed is decided by the constable pointsman, whose up-raised hand indicates his commands. Drivers of hackney carriages, which include all vehicles of the swifter class on two or four wheels, are under the Glasgow Police Act, liable to penalties not exceeding 40 shillings for reckless or

furious driving, or for falling asleep while in charge of a horse yoked to a carriage or cart, or for being drunk, or even for leaving their horses unattended on the street.

Cyclists are controlled by the police within the city area; who must see that one hour after sunset each cycle carries a lighted lamp, and that before the cyclist overtakes a car or carriage or pedestrian an alarm by bell or other means is given.

The general use of motorcars and taxis has revolutionized traffic of late, and it is possible that fresh legislation may soon be demanded by the public. Meanwhile the Glasgow corporation regulates both under its own acts. Chauffeurs for taxicabs intended for public hire must satisfy a corporation inspector as to their fitness and qualifications for driving a motorcar. The same laws which apply to ordinary private and commercial motorcars as regards speed allowances, etc., govern the taxicabs.

Under the Motor Car Act of 1903, the maximum speed allowed for motorcars throughout Great Britain is 20 miles per hour. Power is given the local authorities to limit the speed within their several jurisdictions to the extent of 10 miles per hour. As a rule in large towns and cities the latter power has not been exercised.

In Glasgow all motorcars are controlled by the corporations acts, which empower the corporation to regulate the chauffeurs, irrespective of speed. Thus if a driver is convicted of reckless driving—no matter what speed he may have restricted his car to—he is liable to a penalty.

Under the Local Acts the corporation retains the power to close on special occasions whole sections of the city, or perhaps a single thoroughfare, to all vehicular traffic—including motorcars and taxicabs. Thus the powers of the police are ample, and when convictions are obtained and the parties feel aggrieved, in most instances they can appeal to higher courts.

On the whole, however, the street regulations work well and harmoniously, and the remarkable immunity from serious accident is doubtless the best compliment to the traffic regulations of Glasgow.

## Field Marshal Roberts' Gives Warning

Lord Roberts has issued a warning to the British public, in the form of a letter to the newspapers, that the present army system is a failure, and that if Britain were to be attacked tomorrow she would be in no position to defend herself. The Field Marshal had intended speaking on the matter in the House of Lords, but was unable to do so as there was no army debate in the current session. He has taken the course of speaking directly to the people through the newspapers, and probably his remarks will seem even more emphatic in that way. It is well to remember that Lord Roberts is an old man, and then to reflect that he is the greatest army reformer in England. He is no alarmist, but when he speaks on military affairs he can summon to his assistance the fruit of more than fifty years' experience in the army. There is no man in the Empire today so well qualified as Lord Roberts to speak to his countrymen about the military system on which they are asked to rely by Lord Haldane and the Asquith Government.

## Inferior Rifles

Lord Roberts is not a political partizan, and while he criticizes the Secretary of State for War, he does so only incidentally and admits that it is idle to criticize a Minister or Ministers. He wants to reach the public, and get the average Englishman to take an hour to think over the matter, for he says that until the people become interested the politicians will not. Lord Roberts declares emphatically that the regular army is not now ready for war. The rifles in use are inferior to those of the French and German armies. The point blank range of the English army rifle is 600 yards; that of the French and German rifles is 800 yards. The equipment of the artillery is

scarcely more satisfactory. "Our fuse and fuse setters are not up-to-date; our sights are not up-to-date, with the result that our gun is not an automatic firing gun," says Lord Roberts.

## "War Will Not Wait"

He continues: "Again, in aviation we are behind other nations. That science is in its infancy, but it has already proved of the utmost service in detecting the movements of an enemy, and thus illuminating to a great extent in military operations that uncertainty which we are accustomed to call 'the fog of war.' France and Germany have recognized the supreme importance of the command of the air. The former already possesses a fleet of 200 aeroplanes. Germany proposes to spend this next year one and a half million sterling on aviation alone. In England there are only four aeroplanes fit to take the field.

"The Army Council has not even entrusted this most important military subject to the General Staff, and Lord Haldane and his associates assure us suavely that if we wait we shall profit by the success or failure of others, and eventually obtain information as to the best design for a dirigible or an aeroplane.

"This assuredly is not the line of policy for a country famous beyond all others for its invention and enterprise, whether in peace or war? We may wait, but war will not wait. The idea is absurd; it is of a piece with that other unaccountable idea of the Secretary of State for War—that it will be time enough to begin seriously training when war has been declared!"

## Marksmanship and Discipline

Lord Haldane's scheme of reform has reduced the strength of the regular army by

30,000 men, and his territorial army as at present constituted is not of the slightest use for war purposes. It will be useless until the infantry is taught to use its rifles with skill, the artillery to work its guns rapidly and scientifically, the Yeomanry to shoot as well as the infantry, and its members mounted on horses they are accustomed to ride, and know how to look after. The modern soldier must be a good shot and a man accustomed to discipline. The members of the territorial army are not good shots, nor are they properly disciplined. How is the ordinary citizen who joins the territorial army to become a marksman and a disciplined soldier? Not, declares Lord Roberts, from a few afternoons spent in a drill hall, and a fortnight at the outside, in camp once a year. From time to time the British public is regaled with what Lord Roberts calls exhibitions of "pseudo efficiency" on the part of the various units of the territorial forces. The people see bodies of Yeomanry marched past on horses so well trained that they would do equally well without riders. They forget to enquire if the gallant riders know one end of a rifle from the other, and could hit the side of a barn a hundred yards off.

## Universal Compulsory Service

Inefficiency breeds inefficiency, and the failure of the army has reacted on the navy. Under the present army system the navy is tethered to the coasts of England. It dare not throw its whole strength into a battle a thousand miles away, because the army could not be depended on to defend the country from invasion in its absence. Lord Roberts does not hesitate to say that universal, compulsory military service is the only system that will give Britain an army able to defend her shores in the hour of need.—Mail and Empire.

## KINGS TALKED OF A DUEL

The personal enmity which existed between George II. and Frederick, King of Prussia, reached at one time to such a height that, as Baron Byfield was informed on good authority, the monarchs conceived the very singular design of gratifying it in a duel.

King George made a choice of Brigadier Sutton for his second, and the King of Prussia of Colonel Derschau. The Territory of Hildersheim was picked on for the meeting. His Britannic Majesty was then at Hanover and his Prussian Majesty had come as far as Salzda, near Brunswick. Baron Borch, the Prussian Minister at London, and lately dismissed from the court in a very abrupt manner, having repaired to the King, his master, at Salzda, found him in such a violent passion that he did not think it advisable directly to oppose his design, but to gain time feigned to approve of the extraordinary combat which his Majesty meditated, and he even offered to carry the challenge.

The challenge was not sent. Ministers on both sides gained time, the cholera of both parties evaporated, and the following year the quarrel was made up.—The Percy Anecdotes.

## French Spy's Escape

## Plans for Escape

It seems strange that Captain Lux should have been able to hide all this store of thread, but he appears to have done so, and to have woven out of the slender but tough material a cord strong enough to finally to bear his weight. Not content with keeping the prisoner supplied with daily literature, his brother officers used to send him every five or six days an historical work treating of Napoleon or French military history, such as the captive student would naturally enjoy without arousing any suspicion. M. Masson's work on Josephine and Napoleon was the principal vehicle of smuggling, and the learned historian may be jokingly accused of being an accomplice. It was not to be expected that the fortress authorities would let the volumes pass without examination, but in appearance they were perfectly innocent, and seemed to have come straight from the mess library, being marked "Library of the Officers of the Thirtieth Line" on the leather covers. As the captain's brother was in this regiment, and was the principal correspondent, it was only natural that he should also send him books from the regimental library.

When sure of being undisturbed the captain split up the heavy bindings and always found inside either German paper money or very finely tempered flat steel files and saws made on purpose to fit the size of the book. It may be asked how the prisoner knew where these were concealed, and how he came to know of the steel and paper treasures within the books. Every letter he received was opened and read carefully by experts in cypher, but they were always full of mere family gossip, and were finally handed on to him. But his correspondents had managed—probably before his incarceration—to tell him their method, which was to write in invisible ink on the inside of the envelope full details of which books contained files or money and of the plans made for escape. In this way Captain Lux received four steel instruments and about £20 in money, which was enough, presumably, to buy certain indulgences from the warders and pay for traveling expenses to the frontier, some twenty miles from the prison of Glatz.

## Strong Barriers Evaded

The date of the escape was well chosen to coincide with the Christmas fetes, and it was settled that on the night of the 27th a motor car driven by a Hungarian should be waiting at a given spot. After that two routes were open—either via Russia to the Baltic, or through Austria to Italy. It was the latter that was chosen. Not knowing what lay before him, Captain Lux went privately through a course of gymnastic training in his rooms every day until, when the moment came to put his fortune to the touch, he was physically fit for almost any strain or ordinary feat. The actual phases of his escape have yet to be told by himself, but it is known that after reaching the free air he had to break through two massive doors, cut through an iron bar nearly a quarter of an inch thick, pass through several garrets and enclosures, and finally scale an iron palisade seven feet high under the full light of a gas lamp and the observation of a sentinel. He chose exactly the moment that the man turned his back, and was over and out of sight in a few seconds. Had he been discovered he would infallibly have been shot, but he seems to have stuck to his plan with indomitable courage and coolness.

Once beyond the citadel, he was half free. He found the car waiting, and a quarter of an hour later reached the Austrian frontier, being timed to catch the Milan-Vienna express at a small station on the other side. On Saturday at noon he was able to telegraph to his brother that he had succeeded. Besides the satisfaction of having effected a piece of prison-breaking such as is seldom heard of outside the pages of a novel, the gallant captain has the peculiar extra pleasure of getting out of the payment of the costs of his trial, with which he was, of course, saddled, so that within half an hour he got rid of four years' more imprisonment and a debt of £400, which his friends were going to pay, by international money order. The whole of France is in glee over this great performance, and all the "revues" will soon have the captain and M. Masson figuring in caricature on the stage.

## THE NEW LIFE

Long fed on boundless hopes, O race of man,  
How angrily thou spurn'st all simpler fare!  
"Christ," some one says, "was human as we are;

No judge eyes us from Heaven, our sin to scan.

"We live no more when we have done our span."

"Well, then, for Christ," thou answerest, "who can save?"

From sin, which Heaven records not, why forbear?

Live we like brutes our life without a plan?"

So answerest thou; but why not rather say:

"Hath man no second life? Pitch this one high!"

Sits there no Judge in Heaven our sin to see?

"More strictly, then, the inward judge obey!  
Was Christ a man like us? Ah, let us try  
If we then, too, can be such men as He."

—Matthew Arnold.

Friends do not freeze to a frozen heart.  
Your rank among men depends on how  
You help them to rise.