

**Arthur Conan Doyle**

# **The surgeon of Gaster fell**

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with few exceptions, are expected to accomplish work suited for young people of a totally different calibre.

We are not so lavish in the matter of supplying, by legislation, food or fresh air for our youths (it would be of greater advantage to the nation if we were); but at a great amount of national expense, we urge superabundant quantities of mental food on underdeveloped brains, which by their impotent state are unable to digest the food.

It is only natural that children should learn; but the matter should be placed before them in such a simple and agreeable form that they would learn in a natural way. It is a strange thing that a child experiences but little difficulty in learning his mother-tongue, and that, too, at a very early age. Why, then, can his studies not be so arranged that in an easy and natural manner he may acquire the knowledge required of him? Thus his life at school would be thoroughly enjoyable, instead of being, as it is in so many cases, a 'weariness of the flesh.' In many of our public schools it is quite the custom for children of tender years to remain in school for over two hours at a time, especially in the afternoons, when they cannot but be fed fatigued with the studies of the morning. It is indeed a pitiable sight to see in our seminaries row upon row of little ones, full of life and vigour, obliged to 'sit still,' during the greater part of five hours every school-day.

Let a visitor pass through almost any of our public schools in the morning after the classes have assembled, and he will notice how fresh and lively the children seem. Then let him pass through the same school before the classes stop working for afternoon dismissal, and he cannot fail to be struck by the listless, restless, or drooping appearance of almost every child there. The reason for this can be explained by the fact that Nature has implanted in all healthy children a desire to exercise their limbs; and when this natural impulse is 'cribbed, calmed, and confined,' the health of those concerned must necessarily suffer.

If for every hour of mental work, ten minutes were granted for recreation, that time would not be wasted, for cessation from mental labour for a time gives the powers of the mind greater vigour. The very name 'recreation' suggests that, and it would not be difficult to find recreation which at the same time would amuse and instruct. Is it early time that something were done to relieve this crying evil of overpressure?

One step in the right direction would be to abolish lessons in the afternoon, and substitute physical work or exercises, which in their turn should not be so severe as to overstrain the muscles. The proper education of our youths is one of the most important topics of the day, and in every part of that education strain or overpressure of any kind must be studiously avoided. If lessons, and lessons only, with short intervals of play, occupied the morning hours, when the mental vigour is at its best, the afternoon hours might both pleasantly and profitably be arranged in giving instruction in physical exercises and manual labour. For example, in

boys' schools the pupils might be taught the elements of some trade or profession. In girls' schools, sewing, cookery, laundry-work, house-light-work, and the elements of such employments as are suited to women, might be taught. In infant schools, Kindergarten with a view to the above might probably be given; and in all three schools, singing, drill (comprising physical exercises and deportment) and art-work—such as drawing, painting, modelling, and in the upper classes wood-carving—would take up a considerable portion of the time. Thus hands, eyes, head, lungs, and limbs would each have their portion of training.

The benefits of following some such system as this are quite apparent. The morning hours being best suited for brain-work, would be set aside for that special branch; while the change from mental to manual labour would be both pleasant and refreshing. Financially, it would be useful too, for the garments and articles made by the children might be disposed of at a price sufficient at least to defray the cost of the materials.

Even if separate trades were not taught, the children could be instructed in the use of tools and technical terms; and then, by having the hand as well as the head educated, they would become more apt as workmen and workwomen. Why is it that for every vacancy that occurs in the Civil Service, clerkships, or similar employments, there is such an overwhelming number of candidates, while the supply of thoroughly efficient domestic servants, both male and female, seems at its lowest ebb? Can we not trace in this superabundance on one hand and deficiency on the other the effects of the present system of teaching?

The object of this paper is not in any way to depreciate education—for without that, man's highest powers and qualities lie dormant—but to point out prevalent errors in the present system of organization as practised at the present day, in the hope that some remedy may be found to eliminate them. Let Britain educate her offspring in hand as well as head, in body as well as mind, and she will produce a race of stalwart men and well-trained daughters, well developed both mentally and physically, and of whom any nation might be proud.

## THE SURGEON OF GASTER FELL.

By A. CONNOR DODGE.

IN FOUR CHAPTERS.

CHAPTER I.—HOW THE WOMAN CAME TO EIGHTY-BALLPOUNDS.

BLAKE and Windwhelp is the little Yorkshire town of Kirby-Mallison, and harsh and forbidding are the hills upon which it stands. It stretches in a single line of grey stone, slate-roofed houses, dotted down the horizontal slope of the long rolling moor. To north and to south stretch the swelling curves of the Yorkshire uplands, peeping over each other's backs to the skyland, with a tinge of yellow in the foreground, which shades away to olive in the distance, save where the long grey scars of rock protrude through the sandy and barren soil.

From the little knoll above the church one may see to the westward a fringe of gold upon an sea of silver, where the great Moroccan sands are washed by the Irish Sea. To the east, Ingleborough looms purple in the distance; while Pendragon shoots up the tapering peak, whose great shadow, like Nature's own sun-dial, sweeps slowly round over a vast expanse of savage and sterile country.

In this lonely and isolated village, I, James Upperton, found myself in the summer of '90. Little as the wild hunter had to offer, it contained that for which I yearned above all things—solitude and freedom from all which might distract my mind from the high and weighty subjects which engaged it. I was weary of the long turmoil and profusion of life. From early youth my days had been spent in wild adventure and strange experiences, until, at the age of thirty-nine, there were few lands upon which I had not set foot, and scarcely any joy or sorrow of which I had not tasted. Among the first of Europeans I had penetrated to the desolate shores of Lake Tanganyika; and I had twice made my way to those unvisited and impenetrable jungles which skirt the great table-land of the Ruwenzori. As a soldier of fortune, I had served under many flags. I was with Jackson in the Shanabuly Valley; and I fought with Chanay in the army of the Loire. It may well seem strange that, after a life so exciting, I could give myself up to the dull routine and trivial interests of the West-Indian hunter.

And yet there are moments of the mind to which more hotly pert than the exaltation of travel is man and contemplation. For years I had devoted myself to the study of the mystic and hermetic philosophies, Egyptian, Indian, Chinese, and medieval, until out of the great chaos there had slowly dawned upon me a huge symmetrical design; and I seemed to grasp the key of that symbolism which was used by those learned men to screen their profound knowledge from the vulgar and the wicked. Questions and Non-questions, Chaldean, Mesopotamian, and Indian Mystics, I saw and understood in which each played a part. To see the jargon of Paracelsus, the mysticism of the alchemists, and the visions of Swedenborg were all pregnant with meaning. I had deciphered the mysterious inscriptions of El Ezer; and I knew the import of those strange characters which have been engraved by an unknown upon the cliffs of Southern Turkistan. Immersed in these great and engrossing studies, I asked nothing from life save a garret for myself and for my books, where I might pursue my studies without interference or interruption.

But even in the little mountain village I found that it was impossible to shake off the consciousness of one's fellow-mortals. When I went forth, the routine would eye me sidelong, and mothers would whip-up their children as I passed down

the village street. At night, I have glanced out through my diamond-paned lattice to find that a group of foolish staring peasants had been craning—their necks in an agony of fear and curiosity to watch me at my solitary task. My kindly, too, became garrulous with a clutter of questions under every small pretext, and a hundred small cares and woes by which to tempt me to speak to her of myself did of my plans. All this was ill to bear; but when at last I heard that I was no longer to be sole Ridge, and that a lady, a stranger, had engaged the other room, I felt that indeed it was time for one who sought the quiet and the peace of study to seek some more tranquil surrounding.

In my frequent walks I had learnt to know well the wild and desolate region where Yorkshire borders on both Lancashire and Westmorland. From Kirkby-Mallison I had frequently made my way to this lone and wilderness, and had traversed it from east to west. In the gloomy majesty of its scenery, and the appalling stillness and loneliness of its rock-strewn mountainous solitudes, it seemed to offer me a secure asylum from espionage and criticism. As it chanced, I had in my wanderings come upon an isolated dwelling in the very heart of these lonely moors, which I at once determined should be my own. It was a two-roomed cottage, which had once belonged to some shepherd, but which had long been deserted, and was crumbling rapidly to ruin. In the winter floods, the Gaster Beck, which runs down Gaster Fell, where the little dwelling stood, had overtopped its bank and torn away a portion of the wall. The roof, too, was in ill case, and the weathered slates lay thick amongst the grass. Yet the main shell of the house stood firm and true; and it was no great task for me to have all that was amiss set right. Though not rich, I could yet afford to carry out so modest a whim in a lonely way. There came slates and masons from Kirkby-Mallison; and soon the lonely cottage upon Gaster Fell was as strong and weather tight as ever.

The two rooms I had cut in a widely different manner—my own chamber was of a Spanish turn, and the other chamber was so planned as to accord with them. An oil-stove by Hoppington of Birmingham furnished me with the means of cooking; while two great logs, the one of fustic, and the other of potatoes, made me independent of all supplies from without. In diet I had long been a Pythagorean, so that the scrappy long-baked sheep which browsed upon the wiry grass by the Gaster Beck had little to fear from their new companion. A six-pence each of all served me as a sideboard. While a square table, a deal chair, and a trunk-bed completed the list of my domestic fittings. At the head of my couch lay two cupboards shelves—the lower for my dishes and cooking utensils, the upper for the few ornaments which took me back to the little that was pleasant in the long wearisome tedium of youth and for pleasure which had marked the life I had left behind.

If this dwelling-room of mine were plain even to sparseness, its poverty was more than atoned for by the luxury of the chamber which was destined to serve me as my study. I had ever held that it was best for the mind to be surrounded by

such objects as would be in harmony with the studies which occupied it, and that the loftiest and most ethereal conditions of thought are only possible amid surroundings which please the eye and gratify the senses. The room which I had set apart for my mystic studies was set forth in a style as gloomy and majestic as the thoughts and aspirations with which it was in harmony. Both walls and ceiling were covered with a paper of the richest and glimmest black, on which was traced a bold and arabesque pattern of dead gold. A black velvet curtain covered the single diamond-paned window; while a thick yielding carpet of the same material prevented the sound of my own footfall, as I paced backwards and forwards, from breaking the current of my thoughts. Along the cornice ran gold rods, from which depended six pictures, all of the somber and imaginative casts, which chimed best with my fancy. Two, as I remembered, were from the brush of Fraudi; one from Michel Patin; one from Gustave Dore; two from Martin; with a little water-colour by the incomparable Blake. From the centre of the ceiling hung a single gold thread, as thin as to be scarce visible, but of great toughness. From this swung a dove of the same metal, with wings outstretched. The bird was hollow, and contained perfumed oil; while a cyph-like figure, curiously fashioned from pink crystal, hovered over the lamp, and imparted a rich and soft glow to its light. A brass fireplace backed with malachite, two tiger skins upon the carpet, a bull table, and two reclining chairs in amber glass and ebony, completed the furniture of my mystic study, save only that under the window stretched the long book-shelves, which contained the choicest works of those who have busied themselves with the mystery of life.

Bacon, Kantabach, Dante, Hera, Icar, Minnet, Hardinge, Ertter, Dinsley, Anbury, Wincent Road, Ivo Monneau, Alan Kardin, Lippins, Sepher, Tobin, and the Abbe Dubois—these were some of those who stood unobtruded between my sacred shelves. When the lamp was lit of a night and the lurid, flickering light played over the somber and bizarre surroundings, the effect was all that I could wish. Nor was it lessened by the howling of the wind as it swept over the melancholy waste around me. Here at last, I thought, is a back-city in life's hurried stream, where I may lie in peace, forgetting and forgetting.

And yet it was destined that ere ever I reached this quiet harbour I should learn that I was still one of humankind, and that it is an ill thing to strive to break the bond which binds us to our fellows. It was but two nights before the date I had fixed upon for my change of dwelling, when I was conscious of a knock in the house beneath, with the bearing of heavy burdens up the creaking stairs, and the harsh voice of my landlady, loud in welcome and protestations of joy. From time to time, amid her whirl of words, I could hear a gentle and softly modulated voice, which struck pleasantly upon my ear after the long weeks during which I had listened only to the rattle of the dials. One or two I could hear the dialogue beneath—the high voice and the low, with clatter of cup and clink of spoon, until, at last, a light quick

step passed my study door, and I knew that my new fellow-lodger had sought her room. Already my fears had been fulfilled, and my studies the worse for her coming. I vowed in my mind that the second instant should find me installed, safe from all such petty intrusions, in my sanctuary at Gaster Fell.

On the morning after this incident I was up betimes, as is my wont; but I was surprised, on glancing from my window, to see that our new inmate was earlier still. She was walking down the narrow pathway which signs over the fall—a tall woman, slender, her head sunk upon her breast, her arms filled with a bundle of wild-flowers, which she had gathered in her morning ramble. The white and pink of her dress, and the touch of deeper ribbon in her breast drooping hat, formed a pleasant dash of colour against the dim-tinted landscape. She was some distance off when I first set eyes upon her, yet I knew that this wandering woman could be none other than our arrival of last night, for there was a grace and refinement in her bearing which marked her from the dwellers of the hills. Even as I watched, she passed swiftly and lightly down the pathway, and turning through the widest gate, at the further end of our cottage garden, she seated herself upon the green bank which faced my window, and allowing her flowers in front of her, set herself to arrange them.

As she sat there, with the rising sun at her back, and the glow of morning spreading like an auricle round her stately and well-poised head, I could see that she was a woman of extraordinary personal beauty. Her face was Spanish rather than English in its type—oval, olive, with black sparkling eyes, and a sweetly sensitive mouth. From under the broad straw hat, two thick coils of blue-black hair curved down on either side of her graceful forehead. I was surprised, as I watched her, to see that her shoes and skirt bore witness to a journey rather than to a mere morning ramble. Her light dress was stained, wet, and bedraggled; while her hands were thick with the yellow soil of the hills. Her face, too, wore a woe expression, and her young beauty seemed to be dimmed over by the shadow of sorrow. Even as I watched her, she burst suddenly into wild weeping, and throwing down her bundle of flowers, ran swiftly into the house.

Distrust as I was, and weary of the ways of the world, I was conscious of a sudden pang of sympathy and grief as I looked upon the aspect of despair which seemed to convulse this strange and beautiful woman. I bent to my books, and yet my thoughts would ever turn to her proud clear-cut face, her weather-stained dress, her drooping head, and the sorrow which lay in each line and feature of her passive face. Again and again I found myself standing at my easement, and glancing out to see if there were signs of her return. There on the green bank was the line of golden grass and purple marsh-mallows where she had left them; but through the whole morning I neither saw nor heard anything from her who had so suddenly crossed my curiosity and stirred my long-dormant emotions.

Mrs Adams, my landlady, was wont to carry up my frugal breakfast; yet it was very rarely

that I allowed her to break the current of my thoughts, or to draw my mind by her idle chatter from weightier things. This morning, however, for once she found me in a listless mood, and with little prompting, proceeded to pour into my ears all that she knew of our beautiful visitor.

"Miss *Sira* Cameros is her name, sir," she said; "but who she is, or where she comes from, I know little more than yourself. Maybe it was the same reason that brought her to Kirkby-Malton as latched you there yourself, sir."

"Possibly," said I, ignoring the covert question; "but I should hardly have thought that Kirkby-Malton was a place which offered any great attractions to a young lady."

"It's a gay place when the fair is on," said Miss Adams; "yet maybe it's just health and rest, as the young lady is seeking."

"Very likely," said I, stirring my coffee; "and no doubt some friend of yours has advised her to seek it in your very comfortable apartments."

"Hoh, sir!" she cried, "there's the wonder of it. The lady has just come from France; and how her folk came to learn of me is just a wonder. A week ago, my cousin a man to my door—a fine man, sir, and a gentleman, as one could see with half an eye. 'You are Miss Adams,' says he. 'I engage your rooms for Miss Cameros,' says he. 'She will be here in a week,' says he; and then off without a word of leave. Last night there came the young lady herself—soft-spoken and shrewd, with a touch of the French in her speech.—But my advice, sir! I must away and make her some tea, for she'll feel homesick-like, poor lamb, when she wakes under a strange roof."

# A VERY LARGE KITCHEN.

A FEW years ago I was seated one evening in my hotel at an Algerian town; I was recovering from a fever which had left me great weakness and sleepless nights, for which my friendly French doctor had prescribed a cup of "herbicide" before going to bed, telling me that I should sleep "comme un cochon." I had taken my luncheon into my confidence, and she had that evening sent me up a bowl of a moderately hot liquid, hot in colour, in which sparks of oil floated like extinction round planets of roasted bread. While painfully endeavouring to struggle through this treatment, I was agreeably surprised by a visit from my doctor, a most amiable member of the (almost always) amiable family of "I Medici." He congratulated me on my obedience to his orders; and then, giving a look at the compound before me, exclaimed: "But what have you there! I never told you to follow a course of water-cure." On my explaining to him the friendly treaty with my luncheon, under which she was to give me of her "herbicide," he remarked that what I was then busily attempting to eat had probably once had claims to be so called, but that, from the amount of water that had been added, it had lost all right to the name. He suggested that I should return it to the kitchen with a request

that if he sent it to me but in half an hour's time. "In the meantime," he said, "you will receive from me a small cooked jar, which I will get from the neighbouring grocer; and you will dissolve in your herbicide 'pot-au-feu' a piece of the skin of a mangle-bone of what it contains. For several days you will repeat this operation twice a day; and you will always take astep of it before going to bed."

On my inquiring the name of the yamaca, he told me that it was "Lieblich's Extractum Capivi," and on my explaining my faintest dislike for all such preparations, he said that I should alter my views, adding that it was one of the few good things which the Germans had given us.

I am bound to say that, in consequence, as I believe, of this regime, I had hours of uninterrupted sleep, which had been for some time unknown to me. I followed the treatment for several days till the end of which time I felt equal to enter the list with Mauch, Mauch, & Co. Since then, I have always carried with me in my travels one of the small pots of Lieblich's 'Extract of Meat'; and in other hotels, which shall be nameless, I have had reason to be most grateful to my acquaintance made in Algeria.

Lastly, I found myself at Frax Bontox, a small and picturesque town of North America, in the 'Republique Orientale del Uruguay'—three years' construction. I was ordered to pay a passing visit to this country on my way up the river Uruguay, into the interior, and I had especially some pastoral projects in view. My curiosity with regard to the country was rewarded, for there is much to be seen in a delightful climate, and my feeling was satisfactorily accomplished. I am bound, however, to add that life in Frax Bontox leaves something to be desired, and I was therefore much pleased to find myself within a mile and a half of one of the most remarkable establishments I have ever visited, Lieblich's 'Extract of Meat' Factory, where I was able to renew acquaintance with my friend under circumstances very different from those in which I first knew him in another continent. That little cooked jar to which I have ascribed my gratitude, and which we are advertised through the known world, passes through some millions of hands; but I doubt if many persons know more of the history of its passage, birth, and education than I did when I first paid a visit to the factory. I confess to having been astounded when I came to see the magnitude and completeness of the machinery brought to bear on the fabrication of the contents of so small and insignificant an object. It has occurred to me that some of the details which I learned may interest others in these days when everything is called on to explain its 'raison d'être.'

Some fifty years ago, Baron Justin von Lieblich was happily inspired to make abstract scientific researches into the nature of meat, of which he gave the world of science in Germany the benefit in 1847. From after which time, starting with a stock in trade of some five or six cows, he made his 'Extract of Meat' in the Königsberg Hof Apotheke of Munich, from which the king of Bavaria and some members of the royal family alone then derived the benefit. It was looked upon as a medical discovery, treated as an article of the pharmacopoeia and sold as such, for medical

and he bitterly repeats his desire for fame. Luckily for him, a counter-attraction draws the public attention from him, and a shouting voice makes every one turn to look at the other side of the room, where three small boys have profited by the general crowding round our dinner to take a yatsugan from the wall and to set to work at carving their thumbs and fingers in imitation of the marvellous French. Happily, before much harm is done, the yatsugan is taken away and the boys soundly reprimanded; and I quickly restore the pin to my coat in the general confusion.

After more coffee comes the great dance of the evening, and again the grand youth pirouettes round the ring. This time, however, something more striking is to be performed, and so one of the boys lends him his white festonade; another, a gold-embroidered jacket and waistcoat of crimson cloth; a third, his gaiters, ornamented in similar fashion; and a fourth unrolls the long silk sash from his waist and throws it to the dancer. Again the slow rhythmic walk begins to the melancholy music of the guila; but after a few circles the dancer steps once more. *Picnie Aghe* and *Sheddie Boy* Capotai then draw their knees, like *Dominican* blades, inlaid with veins of the Koran in gold, from their scabbards, and hand them to the client dancer, who receives them solemnly, and covers more natives to the centre of the ring. Taking the yatsugan by their hilts, he straddles out his arms, places the sharp points in his girdle, and resumes his walk round the room. After a few circles, the music quickens, and the dancer bends into a polite-macabre stoop, with the blades still sticking into his girdle. Again the music goes faster; the colour runs to the dancer's face; he raises the points of the yatsugans and places them beneath his armpits, and every few paces bumps the floor first with one knee and then with the other. Faster and faster grows the music, wilder and wilder grows the dancer, ducking himself on the floor with ever-increasing energy, with arms still outstretched and points turned towards; till at last he bursts into a frantic rube in the middle of the room, and spins round, a confused mass of white festonade and gold and scarlet coat, with the bright steel-tine blades gleaming beneath his extended arms. Suddenly both music and dancer stop, and hastily returning the yatsugans to their owners, the performer plunges into the crowd of on-lookers, and disappears to take off his borrowed finery. No one troubles to applaud; it is the dancer's business; he is paid for it, and has done his duty, that is all.

By this time it is considerably past midnight, and so some one is sent to rouse *Mario* from the slumber into which much coffee and unlit cigars have plunged him. As for ourselves, we each drain one gily, before leaving, a tumbler of the sweet pink sherry that the *Alibonians* love, for our *l'habits* feel like lime-kills from excessive smoking. I leave the curiosity to count the cigarettes made in my *gipyan*; they are seventeen, and though the balance is good, yet the paper is very coarse and big. Our rising is the signal for the general break-up of the entertainment. *Picnie Aghe* sees us to the great gates; and, as we follow the sleepy *Mario* and his lantern over the cobble stones that pave the road,

the spectral melody of "Lady All" mingles through the wares still set from the side-street down which the three musicians are solemnly making their homeward way.

## THE SURGEON OF GASTER FELL.

### CHAPTER II.—HOW I WENT FORTH TO PASTER.

FELL.

I was still engaged upon my breakfast, when I heard the clatter of dishes, and the landlady's footfall as she pulled towards her new lodger's room. An instant afterwards she had rushed down the passage and burst in upon me with upturned hands and startled eyes. "Lord's mercy, sir!" she cried, "and asking your pardon for troubling you, but I'm hard of the young lady, sir; she is got in her room."

"Why, there she is," said I, standing up and glancing through the passage. "She has gone back for the shawls she left upon the bank."

"Oh sir, see to her boots and her dress!" cried the landlady wildly. "I wish her mother was here, sir—I do. Where she has been is more than I know; but her bed has not been laid on this night."

"She has left needles, darning, and had gone for a walk, though the hour was certainly a strange one."

*Mrs Adams* purred her lip and shook her head. But even as she stood at the casement, the girl beneath looked curiously up at her, and beckoned to her with a merry gesture to open the window.

"Have you my tea there?" she asked, in a rich clear voice, with a touch of the winning French accent.

"It is in your room, miss."

"Look at my boots, *Mrs Adams*!" she cried, thrusting them out from under her skirt. "These hills of yours are dreadful places—affrightful—some look, two look; never have I seen such mud!—My dress, too—will!"

"Oh, miss, but you are in a jibber!" cried the landlady, as she gazed down at the bedraggled gown. "But you must be main-wary and leary for sleep."

"No, no," she answered, laughing. "I care not for sleep. What is sleep? It is a little death—well, that. But for me to walk, to run, to breathe the air—that is to live. I was not tired, and so all night I have explored these hills of Yorkshire."

"Lord's mercy, miss, and where did you go?" asked *Mrs Adams*.

She moved her hand round in a sweeping gesture which included the whole western horizon. "There!" she cried. "I cannot also count miles of swamps, no cottons! But I have flowers here. You will give me water, will you not? They will wither else." She gathered her treasures into her lap, and a moment later we heard her light springy footfall upon the stairs.

So she had been out all night, this strange woman. What motive could have taken her from her snug room on to the bleak wind-swept hills? Could it be merely the restlessness, the love of adventure of a young girl? Or was there, possibly, some deeper meaning in this nocturnal journey?

I thought, as I passed my chamber, of her dressing maid, the grief upon her face, and the wild burst of weeping which I had witnessed in the garden. Her nightly mission, then, be it what it might, had left no thought of pleasure behind it. And yet, even as I walked, I could hear the merry tinkle of her laughter, and her voice uplifted in protest against the motherly care which Mrs. Adams insisted upon her changing her maternal garments. Deep as were the mysteries which my studies had taught me to solve, here was a human problem, which for the moment at least was beyond my comprehension.

I had walked out on the tower in the forenoon; and on my return, as I tapped the lawn that overrocks the little lawn, I saw my fellow-lodger some little distance off among the grass. She had raised a light veil of frost of her, and with papery folded laid upon it, was preparing to point the magnificent landscape of rock and moor which stretched early in front of life. As I watched her, I saw that she was looking anxiously to right and left. Close by me a pool of water had formed in a hollow. Nipping the cap of my pocket book into it, I carried it across to her. 'This is what you need, I think,' said I, raising my cap and smiling.

'Mercy, then,' she answered, pouring the water into her basin. 'I was indeed in search of some.'

'Miss Cameron, I believe,' said I. 'I am your fellow-lodger. Upstart is my name. We must introduce ourselves to those with whom we are not to be for ever strangers.'

'Oh, then, you live also with Mrs. Adams,' she cried. 'I had thought that there were none but peasants in this strange place.'

'I am a visitor, like yourself,' I answered. 'I am a student, and have come for the quiet and repose which my studies demand.'

'Quiet indeed,' said she, glancing round at the vast circle of silent moors, with the one tiny line of gray cottages which sloped down beneath us.

'And yet not quiet enough,' I answered, laughing, 'for I have been forced to move further into the hills for the absolute peace which I require.'

'Have you then built a house upon the hills?' she asked, arching her eyebrows.

'I have, and hope within a few days to occupy it.'

'Ah, but that is idle,' she cried. 'And where is it, then, this house which you have built?'

'It is over yonder,' I answered. 'See that stream which flows like a silver band upon the distant moor. It is the Guster Beck, and it runs through Guster Fell.'

She started, and turned upon me her great dark questioning eyes with a look in which surprise, incredulity, and something akin to terror seemed to be struggling for a mastery.

'And you will live on the Guster Fell?' she cried.

'So I have planned.—But what do you know of Guster Fell, Miss Cameron?' I asked. 'I had thought that you were a stranger in these parts.'

'Indeed, I have never been here before,' she answered. 'But I have heard my brother talk of these Yorkshire moors; and if I mistake not, I have heard him name this very one as the wildest and most savage of them all.'

'Very likely,' said I seriously. 'It is indeed a dreary place.'

'Then why live there?' she cried eagerly. 'Consider the loneliness, the barrenness, the want of all comfort and of all aid, should aid be needed.'

'All! What aid should be needed on Guster Fell?'

She looked down and shrugged her shoulders. 'Richness may come in all places,' said she. 'If I were a man, I do not think I would live alone on Guster Fell.'

'I have heard worse dangers than that,' said I, laughing; 'but I fear that your picture will be spoiled, for the clouds are banking up, and already I feel a few catdrips.'

Indeed, it was high time we were on our way to shelter, for even as I spoke there came the sudden steady swirl of the shower. Laughing merrily, my companion threw her light shawl over her head, and, seizing picture and stool, ran with the little grace of a young fawn down the fern-stead slope, while I followed after with camp-stool and paint-box.

Deeply as my curiosity had been aroused by this strange well which had been cut up in our West Riding hamlet, I found that with better knowledge of her my interest was stimulated rather than satisfied. Thrown together as we were, with no thought in common with the good people who surrounded us, it was not long before a friendship and confidence arose between us. Together we strolled over the moors in the mornings, or stood upon the Moorstone Crag to watch the red sun sinking beneath the distant waters of Harrogate. To herself she spoke frankly and without reserve. Her mother had died young, and her youth had been spent in the highest convent from which she had just finally returned. Her father and one brother, she told me, constituted the whole of her family. Yet, when the talk changed to turn upon the names which had brought her to so lonely a dwelling, a strange reserve possessed her; and she would either relapse into silence or turn the talk into another channel. For the rest, she was an admirable companion—sympathetic, well read, with the quick physical distinctness of thought which she had brought with her from her foreign training. Yet the shadow which I had observed in her on the first morning that I had seen her was never far from her mind, and I have seen her marvellous laugh freeze suddenly upon her lips, as though some dark thought lurked within her, to choke down the mirth and gaiety of her youth.

It was the eve of my departure from Kildy-Mathew that we sat upon the green bank in the garden, she with dark dreamy eyes looking only out over the somber hills; while I, with a book upon my knee, glanced covertly at her lovely profile, and marvelling to myself how twenty years of life could have stamped so sad and sad wail on an expression upon it.

'You have read much,' I remarked at last. 'Women have opportunities now such as their mothers never knew. Have you ever thought of going further—of seeking a course of college or even a learned profession?'

She smiled wearily at the thought. 'I have no aim, no ambition,' she said. 'My future is

black—confused—a shame. My life is like to one of those paths upon the fells. You have seen them, Minister Uperton. They are smooth and straight and clear where they begin; but soon they wind to left and wind to right, and so mid rocks and over crags until they lose themselves in some quagmire. Al Brande my path was straight; but now, even Dio, who is there can tell me where it leads!"

"It might take me prophet to do that, Miss Cameron," quoth I, with the falterly manner which forebore years may show towards one. "If I may lead your life, I would venture to say that you were destined to follow the lot of women—to make some good man happy, and to dwell abroad, in some water circle, the pleasure which your society has given me since first I knew you."

"I will never marry," said she, with a sharp decision which surprised and somewhat amused me.

"Not marry; and why?"

A strange look passed over her sensitive features, and she shrank nervously at the grass on the black heath-land. "I dare not," said she, in a voice that quivered with emotion.

"Dare not!"

"It is not far, me. I have other things to do. That path of which I spoke is one which I must tread alone."

"But this is terrible," said I. "Why should your lot, Miss Cameron, be separate from that of my own sisters, or the thousand other young ladies whose every season brings out into the world? But perhaps it is that you have a true and distinct of mankind. Marriage brings a risk as well as a happiness."

"The risk would be with the man who married me," she cried. And then in an instant, as though she had said too much, she sprang to her feet and drew her mantle round her. "The night-air is chill, Mr Uperton," said she, and so swept swiftly away, leaving me to stare after the strange words which had fallen from her lips.

I had feared that the woman's coming might draw me from my studies; but never had I anticipated that my thoughts and interests could have been changed in so short a time. I sat left that night in my little study, pondering over my future course. She was young, she was fair, she was alluring, both from her own beauty and from the strange mystery that surrounded her. And yet, what was she, that she should turn me from the high studies that filled my mind, or change me from the line of life which I had marked out for myself? I was no boy, that I should be moved and shaken by a duck eye or a woman's smile, and yet three days had passed, and my work lay where I had left it. Clearly, it was true that I should go. I set my teeth, and vowed that another day should not have passed before I should have escaped this newly-formulated, and brought the hourly retreat which awaited me upon the ground.

Breakfast was hardly over in the morning before a peasant dragged up to the door the rude hand-cart which was to convey my few personal belongings to my new dwelling. My fellow-lodger had kept her room; and staid as my mind was against her influence, I was yet conscious of a little shiver of disappointment that

she should "leave" me to depart without a word of farewell. My hand-cart, with its load of books had already started, and I, having shaken hands with Miss Johnson, was about to follow it, when there was a quick scurry of feet on the stairs, and there she was beside me all pouting with her own haste.

"Then you go, you really go?" said she.

"My studies call me."

"And to Gaster Fell?" she asked.

"Yes, to the cottage which I have built there."

"And you will live alone there?"

"With my hundred companions who lie in that cart."

"Ah, books!" she cried, with a pretty string of her graceful shakings.—"But you will make me a promise?"

"What is it?" I asked in surprise.

"It is a small thing; you will not refuse me?"

"You have but to ask it."

She bent forward like identical face with an expression of the utmost and most intense earnestness. "You will look four days at night?" said she, and was gone ere I could say a word in answer to her extraordinary request.

It was a strange thing for me to find myself, but duly installed in my lonely dwelling. For me, now the horizon was bounded by the barren circle of my unresponsive grass, pecked over with fern bushes, and colored by the protection of Nature's giant and granite ribs. A daffodil, warbler waste I have never seen; but its dullness was its very charm. What was there in the faded rolling hills, or in the blue silent arch of heaven, to distract my thoughts from the high thoughts which engrossed them? I had left the great shores of mankind, and had wandered away, for better or worse, upon a side-path of my own. With them, I had hoped to leave grief, disappointment, and emotion, and all other petty human weaknesses. To live for knowledge, and knowledge alone, that was the highest aim which life could offer. And yet upon the very first night which I spent at Gaster Fell there came a strange incident to find my thoughts back once more to the world which I had left behind me.

It had been a calm and sunny evening, with great level cloud-banks wandering in the west. As the night wore on, the air within my little cabin became denser and more oppressive. A weight seemed to rest upon my brow and my chest. From far away, the low, rumbling of thunder came moaning over the space. Outside to sleep, I dressed, and standing at my opening door, looked on the black solitude which surrounded me. There was no breeze below; but above, the clouds were sweeping majestically across the sky, with half a moon peeping at times between the ribs. The ripple of the Gaster Beck and the dull booming of a distant owl were the only sounds which broke upon my ear. Taking the narrow sheep-path which ran by the stream, I strolled along in the moon's borrowed radiance, and had turned to retrace my steps, when the moon was finally buried beneath an ink-black cloud, and the darkness deepened so suddenly, that I could no longer see the path at my feet, the stream upon my right, nor the rocks upon my left. I was standing groping about in the black gloom, when



there came a crash of thunder with a flash of lightning which lit up the whole vast fall, so that every bush and rock stood out clear and hard in the livid light. It was but for an instant, and yet that momentary view struck a thrill of fear and astonishment through me, for in my very path, not twenty yards before me, there stood a woman, the livid light beaming upon her face and showing up every detail of her dress and features. There was no mistaking those dark eyes, that tall graceful figure. It was she—Eve Cameron, the woman whom I thought I had for ever left. For an instant I stood petrified, wondering whether this could indeed be she, or whether it was some figure conjured up by my excited brain. Then I ran swiftly forward in the direction where I had seen her, calling loudly upon her, but without reply. Again I called, and again no answer came. Back, gave the sudden, chilly wail of the owl. A sudden flash illuminated the landscape, and the moon burst out from behind the cloud. But I could not, though I clanked upon a knoll which overlooked the whole moor, see any sign of this strange midnight wanderer. For an hour or more I traversed the fall, and at last found myself back at my little cabin, still uncertain as to whether it had been a woman or a shadow upon which I had gazed.

For the three days which followed this midnight storm I bent myself doggedly to my work. From early morn till late at night I immersed myself in my little study, with my whole thoughts buried in my books and my paraphrases. At last it seemed to me that I had reached that haven of rest, that oasis of study for which I had so often sighed. But also for my hopes and my plans? Within a week of my flight from Kirkby-Mallison, a strange and most unforeseen series of events not only broke in upon the calm of my existence, but filled me with emotions so acute as to drive all other considerations from my mind.

#### A TRANS-CONTINENTAL RAILWAY.

Fourteen years ago the first railway in Canada, a short line of sixteen miles, was opened in the province of Quebec. Even in their wildest dreams, our colonial kinsmen would not then have conceived the possibility of a Trans-continental Railway stretching from the Atlantic to the Pacific coast; yet the greater part of this difficult enterprise has been accomplished during the present decade, and it is now possible to enter the sea at Montreal and to travel without a change straight through to Vancouver, on the shores of the Pacific, a distance of nearly three thousand miles.

The union of the four eastern provinces of Ontario, Quebec, New Brunswick, and Nova Scotia into one confederation by the British North America Act of 1867 gave the first impetus to this great design, which was still further accelerated by the addition of Manitoba and the Northwest Provinces three years later, and the subsequent acquisition of British Columbia in 1871. In 1875, the enterprise was definitely taken in hand by the Canadian Government; but local jealousies

and the strife of political parties in the Parliament House at Ottawa prevented the actual work of construction from making any very effective progress. At length, towards the close of the year 1880, it was decided by almost universal consent to entrust the undertaking to private enterprise; accordingly, in the early part of 1881 the Canadian Pacific Railway Company was chartered by the Government, and entered into a contract to complete the work within the limit of ten years.

But although the Government had thus handed over the direct management of the affair to a private company, their contributions towards the success of the undertaking were numerous and important. During the six years which had passed before the granting of the charter, the whole country from Ottawa to Vancouver had been carefully surveyed—in itself no inconsiderable undertaking—and the line of route determined upon. One thousand miles of railway were also handed over to the company, including the previously completed line running from Quebec to Ottawa; a shorter line in British Columbia, extending as far as Kamloops Lake; and a partially finished section, four hundred and twenty-five miles in length, to the then almost unknown region extending from Lake Superior to Winnipeg. In addition to this the Government bestowed upon them a subsidy of twenty-five million dollars, together with eighteen million acres of land lying along the projected line of route.

With these liberal contributions, the company vigorously commenced the formidable task of bridging over the remaining thirteen hundred miles of country, extending in an almost unbroken line from Ottawa to British Columbia. Early in 1881, operations were begun in the neighbourhood of Winnipeg, and in the course of the year one hundred and sixty miles of railway were completed, stretching westward towards the Rocky Mountains. During the following year, still more rapid progress was made, an additional two hundred and ninety miles of railroad being constructed. In 1883, in spite of engineering difficulties, the line reached the summit of the Rockies; and in 1884 was carried as far as the Selkirk, more than ten hundred and fifty miles from Winnipeg. So rapidly did the work proceed, that it is reckoned that at least three miles of railroad were completed on every working day. Meanwhile, the line was being advanced with equal energy through the difficult region lying between Ottawa and Lake Superior, till at length, early in 1885, a continuous line of rail connected Manitoba and the North-west Provinces with Eastern Canada. At the same time extensive operations were being carried on in British Columbia, the company starting from Kamloops Lake, and working eastward to meet the line of rail as it steadily advanced from Winnipeg. The two bands of workers eventually met at Craigellachie, in Eagle Pass, an opening in the Gold Range of mountains, at a distance of two thousand five hundred miles from Montreal, and upwards of four hundred from Vancouver. There, on November 7, 1885, was laid the last rail of the Canadian Pacific Railway; and by midsummer of the following year the whole line was in working order.

breakfasted in Hall, 'with knives, spoons, and saltmeats.' The first course of their Christmas dinner, which was thoroughly English in every respect—as indeed are the traditional *dinners* of the Temple to-day—was always 'a fair and large boar's head upon a silver platter with mistletoe.'

The grandest ceremony of all took place on the following day, St. Stephen's Day, when, a sort of drama, in which the company participated various characters, accompanied by music and dancing and a good deal of pageantry, was enacted. The chief personage on this occasion was termed the 'Lord of Mincula,' who was attended by his courtiers—Sir Francis Flitterton, Sir Hamble Ruckdottle, Sir Morgan Munchance, and Sir Bartholomew Baidbreck. The performance commenced with the entry of the Constable Marshal arrayed with 'a white rich complete harness, white and bright and gilt with a nest of feathers of all colours upon his crest or helm, and a gilt pikestaff in his hand.' The Constable was accompanied by another officer, called the Lieutenant of the Tower.

Proceeding these officials were sixteen trumpeters, four drummers, and fifes, and four men in white 'harnays' bearing on their shoulders the model of a tower. When this procession had walked three times round the fire to the sound of music, the Constable Marshal and Lieutenant of the Tower knelt before the Lord Chancellor—who was always invited on these occasions—and prayed to be taken into his service. Then came the 'Master of the Game' and the 'Master of the Forest,' the former clothed in green velvet; and the latter in a suit of green satin, and having in his hand a bow and several arrows; each of these officers also carried a hunting-horn along over his shoulder. On arriving at the fire, they blew together 'three conspicuous blasts of merriment,' and paced round about it three times; and then, making three circuits, desired to be admitted into the service of the Lord Chancellor. After some other formalities, a fox and a cat were hunted round the Hall by nine or ten couples of hounds, their deaths terminating these strange proceedings.

During the revels, persons offending against any of the rules were committed to the custody of the 'Lieutenant of the Tower'; but if they could make their escape to the battery and bring into Hall a mancher on the point of a knife, they were set free, the battery being regarded as a sanctuary.

The last of the revels was held in the lower Temple Hall on the 31 of February 1738, when, after dinner, the whole company joined hands and danced round the *sal-lin*, according to one of their old customs, to the singing of the ancient song, 'Round about the Oak-Tree.'

And so the Temple's revels are ended, and their spirit-scores gone; their *banquets* no longer meet in 'whimsical conversation' at Christmas-time; and the student of to-day is denied the pleasure of playing games with the Lord Chancellor.

It seems a pity that some of these ancient Christmas recreations are now observed in the Temple, where so many of the customs of old English life are still kept up. Perhaps some of the proceedings at the 'hospitable Christmasings' might not accord with nineteenth-century

ideas of propriety; but surely no harm would result if Black and Bar, after wrangling with one another all the year, joined hands once more around the *sal-lin* and sang a carol 'in token of joy and good liking.'

## THE SURGEON OF GASTER FELL.

CHAPTER XL.—OF THE GRAY OUTRAGE IN THE GLAZ.

It was either on the fourth or the fifth day after I had taken possession of my cottage that I was astonished to hear footsteps upon the grass outside, quickly followed by a crash, as from a stick, upon the door. The explosion of an infernal machine would hardly have surprised or discomfited me more. I had hoped to have shaken off all intrusion for ever, yet here was somebody beating at my door with an little ceremony as if it had been a village schoolhouse. Hot with anger, I threw down my book, withdrew the bolt just as my visitor had raised his stick to renew his rough application for admittance. He was a tall powerful man, heavy-bearded and deep-chested, clad in a home-fitting suit of tweed, cut for comfort rather than elegance. As he stood in the shimmering sunlight I took in every feature of his face. The large fleshy nose; the steady blue eyes, with their thick thatch of overhanging brows; the broad forehead, all lined and lined with furrows, which were strongly at variance with his peaceful bearing. In spite of his weather-stained left hat and the colored handkerchief along round his brown muscular neck, I could see at a glance he was a man of breeding and education. I had been prepared for some wandering shepherd or wretched tramp, but this appearance fairly disconcerted me.

'You look astonished,' said he, with a smile. 'Did you think, then, that you were the only man in the world with a taste for outlaws? You see that there are other hermits in the wilderness besides yourself.'

'Do you mean to say that you live here?' I asked in no very cordialatory tone.

'Up yonder,' he answered, tossing his head backwards. 'I thought as we were neighbours, Mr. Upperton, that I could not do less than look in and see if I could assist you in any way.'

'Thank you,' said I really, standing with my hand upon the latch of the door. 'I am a man of simple tastes, and you can do nothing for me. You have the advantage of me in knowing my name.'

He appeared to be chilled by my ungracious manner. 'I learned it from the man who was at work here,' he said. 'As for me, I am a surgeon, the surgeon of Gaster Fell. That is the name I have gone by in these parts, and it serves as well as another.'

'Not much room for a practice here,' I observed.

'Not a soul except yourself for five miles on either side.'

'You appear to have had need of some assistance yourself,' I remarked, glancing at a broad white splash, as from the recent action of some powerful art, upon his coat-sleeve.

'That is nothing,' he answered curtly, turning

his feet half round to hide the mark. 'I might get back, for I have a companion who is waiting for me. If I can ever do anything for you, pray let me know. You have only to follow the path upwards for a mile or so to find my place.—Have you a bolt on the inside of your door?'

'Yes,' I answered, rather startled at this sudden question.

'Keep it bolted, then,' he said. 'The bell is a strange place. You never know who may be about. It is as well to be on the safe side.—Good-bye.' He raised his hat, turned on his heel, and lounged away along the back of the little stream.

I was still standing with my hand upon the back, gazing after my unexpected visitor, when I became aware of yet another dweller in the wilderness. Some little distance along the path which the stranger was taking, there lay a great grey boulder, and leaning against this was a small wizened man, who stood erect as the other approached, and advanced to meet him. The two talked for a minute or more, the taller man nodding his head frequently in my direction, as though describing what had passed between us. They then walked on together, and disappeared in a dip of the hill. Presently I saw them ascending once more some rising ground farther on. My acquaintance had thrown his arm round his elderly friend, either from affection, or from a desire to aid him up the steep incline. The square bulky figure and its shaggy mane, and tawny hair, they looked back at me. At the sight, I clattered the door, and had they should be encouraged to return. But when I peeped from the window some minutes afterwards, I perceived that they were gone.

For the remainder of the day I strove in vain to recover that indifference to the world and its ways which is essential to mental abstraction. In what I would, my thoughts ran upon the solitary surgeon and his shrunken companion. What did he mean by his question as to my bolt? and how came it that the last words of Eva Cameron were to the same sinister effect? Again and again I speculated as to what signs of reason could have led two men so dissimilar in age and appearance to dwell together on the wild inhospitable hills. Were they, like myself, immersed in some engrossing study? or could it be that a companionship in crime had forced them from the haunts of men? Some cause there must be, and that a potent one, to induce the man of education to turn to such an existence. It was only now that I began to realize that the crowd of the city is infinitely less disturbing than the solitude of the country.

All day I bent over the Egyptian papyrus upon which I was engaged; but neither the subtle reasonings of the ancient philosopher of Memphis, nor the mystic teaching which lay in his pages, could raise my mind from the things of earth. Evening was drawing in before I threw my work aside to despatch. My heart was bitter against this man for his intrusion. Standing by the back which, perched just the door of my cabin, I cooled my heated brow, and thought the matter over. Clearly it was the small mystery hanging over those neighbours of mine which had caused my mind to run

so persistently on them. That cleared up, they would no longer cause an obstacle to my studies. What was to hinder me, then, from walking in the direction of their dwelling, and observing for myself, without permitting them to suspect my presence, what manner of men they might be? Doubtless, their mode of life would be found to admit of some simple and plausible explanation. In any case, the evening was fine, and a walk would be bracing for mind and body. Lighting my pipe, I set off over the moors in the direction which they had taken. The sun lay low and red in the west, flushing the heavens with a deeper pink, and lighting the pale green of the moath, to the richest crimson along the far horizon. It might have been the great palette upon which the world-painter had mixed his prepared colours. On either side, the great peaks of light-tan and Rosengray looked down upon the grey melancholy country which stretches between them. As I advanced, the hills fell ranged themselves upon right and left, forming a well-defined valley, down the sides of which meandered the little brooklets. On either side, parallel lines of grey rock marked the level of some ancient glacial, the margins of which had formed the breaking ground about my dwelling. Jagged boulders, precipitous scarpes, and twisted fantastic rocks, all bore witness to the terrible power of the old land-flood, and showed where its foamy fingers had ripped and rent the solid mountains.

About half-way down this wild glen there stood a small clump of gorse, and started out from behind these, a thin dark column of smoke rose into the still evening air. Clearly this marked the position of my neighbour's house. Trending away to the left, I was able to gain the shelter of a line of rocks, and so reach a spot from which I could command a view of the building without exposing myself to any risk of being observed. It was a small slate-covered cottage, hardly larger than the hocklers among which it lay, like my own cabin, it showed signs of having been constructed for the use of some shepherd; but, unlike mine, no pains had been taken by the tenants to improve and enlarge it. Two little peeping windows, a cracked and weather-battered door, and a discoloured barrel for catching the rain-water, were the only external objects from which I might draw deductions as to the dwellers within. Yet even in these there was food for thought; for as I drew nearer, still concealing myself behind the ridge, I saw that thick bars of iron covered the windows, while the rude door was all clashed and plated with the same metal. These strange precautions, together with the wild surroundings and unbroken solitude, gave an indubitably ill omen and foreboding character to the solitary building. Thrusting my pipe into my pocket, I crawled upon my hands and knees through the gorse and ferns until I was within a hundred yards of my neighbour's door. Then, feeling that I could not approach nearer without fear of detection, I crawled down, and sat myself to watch.

I had hardly settled into my hiding-place when the door of the cottage swung open, and the man

who had introduced himself to me as the surgeon of Gaster Fall came out, hunched, with a spade in his hands. In front of the door there was a small estimated patch containing potatoes, peas, and other forms of green stuff, and here he proceeded to busy himself, trimming, weeding, and arranging, singing the while in a powerful though not very musical voice. He was all engrossed in his work, with his back to the cottage, when three emerged from the half-open door full into shadowy attenuated creatures whom I had seen in the morning. I could perceive now that he was a man of forty, wrinkled, bent, and bearded, with sparse grizzled hair, and long colourless hair. With a cringing, shivering gait, he shuffled towards his companion, who was unconscious of his approach, until he was close upon him. His light knock or his breathing may have finally given notice of his proximity, for the smaller sprang round and faced him. Each made a quick step towards the other, as though in greeting, and then—when now I feel the horror of the instant—the tall man rushed upon and knocked his companion to the earth, then whipping up his body, ran with great speed over the intervening ground and disappeared with his burden into the house.

Overwhelmed as I was by my varied life, the suddenness and violence of the thing made no shudder. The man's age, his feeble frame, his hunched and depressing manner, all cried shame against the deed. So hot was my anger, that I was on the point of stirring up to the cabin, as usual as I was, when the sound of voices from within showed me that the cabin had recovered. The man had sunk beneath the burden, and all was gray, save a red feather in the cap of Penicott. Secure in the falling light, I approached near and strained my ears to catch what was passing. I could hear the high querulous voice of the elder man, and the deep rough monotone of his assistant, mixed with a strange metallic jangling and clanking. Presently, the surgeon came out, looking the door behind him, and stamped up and down in the twilight, pulling at his hair and brandishing his arms, like a man demented. Then he set off, walking rapidly up the valley, and I soon lost sight of him among the rocks.

When the sound of his feet had died away in the distance, I drew nearer to the cottage. The prisoner within was still pouring forth a stream of words, and moaning from time to time like a man in pain. These words resolved themselves, as I approached, into prayers—shrill, feeble prayers, poured forth with the intense earnestness of one who sees impending an imminent danger. There was to me something inexplicably curious in this gush of solemn ecstasy from the lonely sufferer, unused for so long a time, and jarring upon the silence of the night. I was still pondering whether I should stir myself in the affair or not, when I heard in the distance the sound of the surgeon's returning footfall. As that I drew myself up quickly by the iron bar and glanced in through the diamond-paned window. The interior of the cottage was lit up by a hard glare, coming from what I afterwards discovered to be a chemical furnace. By its rich light I could distinguish a great litter of refuse, tea pipes, and com-

forting, which sparkled over the table, and threw strange grotesque shadows on the wall. On the further side of the room was a wooden framework resembling a large hammock, and in this, still absorbed in prayer, knelt the man whose voice I heard. The red glow beating upon his upturned face made it stand out from the shadow like a painting from Rembrandt, showing up every wrinkle upon the parchment-like skin. I had but time for a fleeting glance; then, dropping from the window, I stole off through the rocks and the heather, nor slackened my speed until I found myself back in my cabin once more. There I threw myself upon my couch, more disturbed and shaken than I had ever thought to feel again.

Long into the watches of the night I tossed and tinkled on my uneasy pillow. A strange theory had formed itself within me, suggested by the elaborate scientific apparatus which I had seen. Could it be that this surgeon had some profound and valuable experiments on hand, which necessitated the taking, or at least the tampering with the life of his companion? Such a supposition would account for the hostility of his life; but how could I reconcile it with the close friendship which had appeared to exist between the pair so long ago that that very morning? Was it grief or remorse which had moved the man to tear his hair and wring his hands when he emerged from the cabin? And would Penicott, however, was also a partner in this sinister business? Was it to my grim neighbours that she made her strange nocturnal passages? and if so, what hand could glory be to make so strangely assorted a trio? Try as I might, I could come to no satisfactory conclusion upon these points. When at last I dropped into a troubled slumber, it was only to my more rest in my dreams the strange episodes of the evening, and to wake at dawn unrefreshed and weary.

Each day as I might have had as to whether I had indeed seen my former fellow-lodger upon the night of the thunderstorm, were finally resolved that morning. Striding along down the path which led to the hill, I saw in one spot where the ground was soft the impression of a foot, the small dainty foot of a well-to-do woman. That they had and high steps could have belonged to none other than my companion of Kirkby-Hallhouse. I followed her trail for some distance till it lost itself among hard and stony ground; but it still pointed, so far as I could discern it, to the lonely and ill-omened cottage. What power could there be to draw this tender girl, through wind and rain and darkness, across the barren moors to that strange rendezvous?

But why should I let my mind run upon such things? Had I not pitied myself that I lived a life of my age, beyond the sphere of my fellow-mortals? Were all my plans and my resolutions to be shaken because the ways of life of my neighbours were strange to me? It was unworthy, it was foolish. By constant and unremitting effort, I set myself to cast out these distracting influences, and to return to my former calm. It was no easy task. But after some days, during which I never stirred from my cottage, I had almost succeeded in regaining my peace

of mind, when a fresh incident started my thoughts back into their old channel.

I have said that a little hawk bowed down the valley and past my very door. A week or so after the doings which I have described, I was seated by my window, when I perceived something white drifting slowly down the stream. My first thought was that it was a drowning sheep; but picking up my stick, I stooped to the bank and looked it adieu. On examination it proved to be a large sheet, torn and tattered, with the initials J. C. in the corner. What gave it its sinister significance, however, was that from head to foot it was all dabbled and discoloured with blood. In parts where the water had soaked it this was but a decoration; while in others the stains showed they were of recent origin. I considered as I gazed at it. It could not have come from the lonely cottage in the glen. What dark and violent deed had left this gruesome trace behind it? I had flattered myself that the human family was no longer to me, and yet my whole being was absorbed now in curiosity and excitement. How could I possibly mental when such things were doing within a mile of me? I felt that the old Adam was too strong in me, and that I must solve this mystery. Pondering the clue of my often belated me, I set off up the glen in the direction of the supposed cabin. I had not gone far before I perceived the very man himself. He was walking rapidly along the hillside, heaving the large boulders with a cogent and believing like a madman. Indeed, at the sight of him, the doubts as to his sanity which had risen in my mind were strengthened and confirmed. As he approached, I noticed that his left arm was suspended in a sling. On perceiving me, he stood irresolute, as though uncertain whether to come over to me or not. I had no choice for an interview with him, however; so I turned past him, on which he continued on his way, still shouting and striking about with his club. When he had disappeared over the hill, I pushed my way down to his cottage, determined to find some clue to what had occurred. I was surprised, on reaching it, to find the iron-plated door flung wide open. The ground immediately outside it was marked with the signs of a struggle. The chemical apparatus within and the furniture were all dashed about and shattered. Most suggestive of all, the slender wooden cage was stained with blood-marks, and the work-tables rampant had disappeared. My heart was heavy for the little man, for I was aware I should never see him in this world more. There were many gray hairs of stress scattered over the valley. I ran my eye over them, and wondered which of them denoted the traces of this last act which ended the homogeneity.

There was nothing in the cabin to throw any light upon the identity of my neighbour. The room was stuffed with chemicals and delicate philosophical instruments. In one corner, a small bookcase contained a choice selection of works of science. In another was a pile of geological specimens collected from the limestone. My eye ran rapidly over these details, but I had no time to make a more thorough examination, for I feared lest the engine should return and find me there. Leaving the cottage,

I hastened homewards with a weight at my heart. A thousand shadows flung over the lonely gorge—the heavy shadow of unexplained crime, making the grim hills look ghastlier, and the wild stream more dreary and forbidding. My mind wandered whether I should send to Lancaster to ascertain the police of what I had seen. My thoughts recoiled at the prospect of becoming a witness in a case of crime, and having an ever busy crowd or an officious press prying and prying into my own modes of life. Was it for this I had, stolen away from my fellow-mortals and settled in these lonely wilds? The thought of publicity was repugnant to me. It was best, perhaps, to wait and watch without taking any decided step until I had come to a more definite conclusion as to what I had heard.

I caught no glimpse of the supper upon my homeward journey; but when I reached my cottage, I was astonished and surprised to find that somebody had entered it in my absence. Books had been pulled out from under the bed, the curtains disarranged, the chairs drawn out from the wall. Even my study had not been safe from this rough intruder, for the print of a heavy foot was plainly visible on the cherry black carpet. I am not a patient man to the best of times; but this intrusion and systematic examination of my household effects stirred up every drop of gall in my composition. Breathing under my breath, I took my old scudger under the bed and passed my finger along the edge. There was a great notch in the crevice where it had jammed up against the collarbone of a Berarum artillery-man the day we lost Van der Tien back from Orleans. It was still sharp enough, however, to be serviceable. I placed it at the head of my bed, within reach of my arm, ready to give a keen greeting to the next uninvited visitor who might arrive.

## STRONG MEN.

Two reappearance of Sandow, the Strong Man, on London stage repeats to mind the marvellous feats of strength in which he rivaled with Samson, another strong man, and which excited the wonder of the metropolis last year. This time, Sandow is accompanied by a man still stronger than himself, whom he discovered in a stone quarry near Aix-la-Chapelle, Prussia, lifting huge blocks of stone into cracks. The stage name of this marvel of strength is Goliath; and a Goliath he is in muscular power. This giant, who is six feet two and a half inches high, weighs twenty-seven stone, and measures sixty-five inches round the chest, and thirty-three inches round the head. It is an easy task for him to march round the stage with a cannon weighing five hundred pounds on his shoulder. It appears to be quite as easy for Sandow to lift Goliath, who represents a weight, as it observed, of three hundred and seventy-eight pounds, several feet of the ground with his first finger, and men by the waist high above his head. Yet all their feats, or similar ones, have been performed, and even emulated before. For

of some unpleasant thought. Many of his entries, too, bear upon other matters than his pecuniary difficulties. Thus, when in London in 1828, he writes: "Dined by command with the Duchess of Kent. I was very kindly recognised by Prince Leopold. I was presented to the little Princess Victoria—I hope they will change her name—the hair-appears to the Crown as things now stand. How strange that so large and fine a family as that of his late Majesty should have died off and dropped into old age with so few descendants! Prince George of Cumberland is, they say, a fine boy about nine years old—a bit of a picky, nervous and rump-like a lion that has been kept in a harness-yard. This little lady is educated with much care, and watched so closely by the Duchess and the principal governess that no boy could have a moment to whisper—"You are fair of England." I suspect if we could dissect the little head we should find that some pigeon or other bird of the air had carried the matter. She is fair, like the Royal Family, but does not look as if she would be pretty. The Duchess herself is very pleasing and affable in her manner."

Being much admired abroad, Scott was constantly receiving presents of various kinds. One of these was amusing. He had done some service for a gentleman who had settled in New South Wales, and who consequently thought it proper to bring Scott home a couple of hares. "I wish," says Scott, "his gratitude had either taken a different turn, or remained as quiescent as that of others whom I have obliged more materially. I at first accepted the creature, considering them, in my ignorance, to be some sort of tame and green parrot, which, though I do not admire their noise, might scream and yell at their pleasure if hung up in the hall among the armchairs. But your man, it seems, stands six feet high in his stocking shoes, and is little better than a kind of sawney or curlew. Hang them! they might set up my collection of old axes for what I know. No! I'll no Kinnies!"

During 1831, a very great change for the worse took place in Scott's health. His diligence at his desk, added to his usual official work, had been too much for the overworked brain, and the pressure of paralysis began to make itself felt in his system. In the course of that year he found it necessary that he should go abroad in search of health, and the Government of the day, though opposed to Scott's party in politics, generously placed a frigate at his disposal. But a change for the better did not take place. When at Malta, Scott conceived a design for a new novel, and actually began it. But the power of continuous work was now fast leaving him, and his efforts at his desk became more and more intermittent, and latterly futile. When he at length reached home, paralysis had seized effectively upon his shattered frame, and the last entry in his Journal, dated April 16, 1832, is left unfinished:

"We entered Roda by a gate renovated by one of the old Pontiffs, but which I forget, and as passed the streets by moonlight to discover, if possible, some appearance of the learned Sir William Gell or the pretty Miss Ashley. At length we found an old servant, who guided us to the lodging taken by Sir William Gell, where

all was comfortable, a good fire included, which our 'lamps and the chaffins of the night required. We dispersed as soon as we had taken some food, wine, and water. We slept reasonably, but on the next morning—"

This is the last we hear of Sir Walter. His eye was now for 'Home! home!' All the glories of Rome and Venice, Italy and the Rhine, which he had looked forward to with eagerness, were now but so many barriers between him and his own country—that 'land of brown heath and sluggish wood' which he loved so well. He arrived at the port of Leith in July, but was quite unconscious of all that passed around him, and so, in this state of mental oblivion, did he reach Abbotford, only once waking up to his brief consciousness when he saw the powers of his own home. On the 21st September the end came. On that day, says Lockhart, Sir Walter breathed his last, in the presence of all his children. "A-ye! a beautiful day—as warm that every window was wide open—and so perfectly still, that the sound of all others most delicious to his ear, the gentle ripple of the Tweed over its pebbles, was distinctly audible as we knelt around the bed, and his child son clasped closed his eyes."

## THE SURGEON OF GASTER FELL.

CHAPTER IV.—OF THE MAN WHO CAME IN THE NIGHT.

THE night set in gusty and tempestuous, and the moon was all got with ragged clouds. The wind blew in neighbourly gales, whistling and sighing over the water, and setting all the grass-lushes sprawling. From time to time a little spout of rain pattered up against the window-panes. I sat until near midnight gazing over the fragment on immortality by lamplight, the Alexandrian plaintext, of whom the Emperor Julian said that he was posterior to Plato in time, but not in genius. At last, shutting up my book, I opened my door and took a last look at the dreary fell and still more dreary sky. As I protruded my head, a swoop of wind caught me, and sent the red robes of my night-suit sparkling and dancing through the darkness. At the same moment the moon shone brilliantly out from between two clouds, and I saw, sitting on the hillside, not two hundred yards from my door, the man who called himself the surgeon of Gaster Fell. He was squatting among the heather, his elbows upon his knees, and his chin resting upon his hands, as motionless as a stone, with his gaze fixed steadily upon the door of my dwelling.

At the sight of this ill-omened sentinel, a chill of horror and of fear shot through me, for his gloomy and mysterious associations had cast a glimmer round the door, and the hour and place were in keeping with his sinister presence. In a moment, however, a moody glow of resentment and self-confidence drove this petty emotion from my mind, and I strode fearlessly in his direction. He rose as I approached, and faced me, with the moon shining on his graven, hoarded face and glittering on his eyeballs. "What is the meaning of this?" I cried as I came up on him. "What right have you to play the spy on me?"

I could see the flash of anger rise on his face. "Your stay in the country has made you forget

your master," he said. "The moon is free to all."

"You will my next that my house is free to all," I said hotly. "You have had the impudence to remark it in my chamber this afternoon."

He started, and his features showed the most intense excitement. "I swear to you that I had no hand in it," he cried. "I have never set foot in your house in my life. Oh no, sir, if you will but believe me, there is a dagger hanging over you, and you would do well to be careful."

"I have had enough of you," I said. "I saw the coward dare you speak when you thought no human eye rested upon you. I have been to your cottage, too, and know all that it has to tell. If there is law in England, you shall hang for what you have done." As to me, I am an old soldier, sir, and I am armed. I shall not factor my door. But if you or any other villain attempt to open my threshold, it shall be at your own risk. With these words I swung round upon my heel and strode into my cabin. When I looked back at him from the door he was still looking at me, a ghastly figure among the bushes, with his hand near his eyes in his breast. I slept fitfully all that night; but I heard no more of this strange incident without, nor was he to be seen when I looked out in the morning.

For two days the wind freshened and increased with constant squalls of rain, until on the third night the most furious storm was raging, which I can ever recollect in England. The thunder roared and rumbled overhead, while the incessant lightning flashes illuminated the heavens. The wind blew furiously, and was adding fury into a calm, and then, of a sudden, heaving and howling at my window-pane until the glass rattled in their frames. The air was charged with electricity, and its peculiar influence, combined with the strange episodes with which I had been recently connected, made me awfully wakeful and acutely sensitive. I felt that it was useless to go to bed, nor could I concentrate my mind sufficiently to read a book. I turned my lamp half down to moderate the glare, and leaning back in my chair, I gave myself up to reverie. I must have lost all perception of time, for I have no recollection how long I sat there on the border-land between thought and slumber. At last, about three or, possibly, four o'clock, I came to myself with a start—not only came to myself, but with every sense and nerve upon the strain. Looking round my chamber in the dim light, I could see no anything to justify my sudden trepidation. The heavily risen, the rain-blurred window, and the rude wooden door were all as they had been. I had begun to persuade myself that some half-dreamed dream had sent that vague thrill through my nerves, when in a moment I became conscious of what it was. It was a sound, the sound of a human step outside my solitary cottage.

Around the threshold and the rain and the wind, I could hear it—a dull monotonous footfall, now on the grass, now on the stones—occasionally stopping entirely, then resuming, and ever drawing nearer. I sat breathlessly, listening to the earth heaved. It had stopped now at my very door, and was replaced by a pausing and gasping, as of one who has trembled fast and far. Only the thickness of the door separated me from this

hard-breathing, light-treading night-walker. I am no coward; but the violator of the night, with the vague warning which I had had, and the proximity of this strange visitor, so uninvited me that my mouth was too dry for speech. I stretched out my hand, however, and grasped my sword, with my eyes still bent upon the door. I prayed in my heart that the thing, whatever it might be, would but knock or threaten & halt me, or give any clue as to its character. Any known danger was better than this awful shadow, broken only by the rhythmic panting.

By the flickering light of the expiring lamp I could see that the latch of my door was twitching, as though a gentle pressure was exerted on it from without. Slowly, slowly, it rose, until it was free of the catch, and then there was a pause of a quarter minute or more, while I still sat silent, with dilated eyes and drawn sides. Then, very slowly, the door began to revolve upon its hinges, and the keen air of the night came whistling through the slit. Very cautiously it was pushed open, so that never a sound came from the rusty hinges. As the aperture enlarged, I became aware of a dark shadowy figure upon my threshold, and of a pale face that looked at me. The features were human, but the eyes were not. They seemed to burn through the darkness with a gleaming brilliancy of their own; and in their baleful chilly glare I was conscious of the very spirit of murder. Springing from my chair, I had raised my naked sword, when, with a wild shriek, a second figure dashed up to my door. At its approach my shadowy tenant uttered a shrill cry, and fled away across the hall, peeping like a beaten mouse. The two creatures were swallowed up in the tempest from which they had emerged as if they were the very goal of the howling wind and the howling rain.

Tingling with my recent loss, I stood at my door, peering through the night with the discordant cry of the fugitives still ringing in my ears. At that moment a vivid flash of lightning illuminated the whole landscape and made it as clear as day. By its light, I saw, far away, upon the hillside, two dark figures pursuing each other with extreme rapidity across the hills. Even at that distance the contrast between them forthwith all doubt as to their identity. The first was the small elderly man whom I had supposed to be dead; the second was my neighbour the surgeon. For an instant they stood out clear and hard in the unearthly light; in the next, the darkness had closed over them, and they were gone. As I turned to re-enter my chamber, my foot rattled against something on my threshold. Stooping, I found it was a straight knife, fashioned entirely of bone, and so soft and brittle that it was a strange choice for a weapon. To render it the more harmless, the top had been cut square off. The edge, however, had been accidentally sharpened against a stone, as was evident from the markings upon it, so that it was still a dangerous implement in the grasp of a determined man. It had evidently dropped from the filcher's hand at the moment when the sudden coming of the surgeon had driven him to flight. There could no longer be a doubt as to the object of his visit.

And what was the meaning of it all? you ask.

Many a drama which I have come across in my wandering life, some at strange and so striking as this one, has lacked the ultimate explanation which you demand. Fate is a great power of tales; but she made them, as a rule, in defiance of all scientific laws, and with an unbecoming want of regard for literary propriety. As it happens, however, I have a letter before me as I write which I may add without comment, and which will clear all that may remain dark.

KIRBY LANE, ASTON,  
Sept. 4, 1880.

Sir.—I am deeply conscious that some apology and explanation is due to you for the very startling and, in your eyes, superstitious events which have recently occurred, and which have so seriously interfered with the retired existence which you desire to lead. I should have called upon you on the morning after the reception of my father; but my knowledge of your dislike to visitors, and also of—yes, will excuse my saying it—your very violent temper, led me to think that it was better to communicate with you by letter. On the occasion of our last interview I should have told you what I tell you now; but your allusion to some crime of which you considered me guilty, and your abrupt departure, prevented me from saying more than was on my lips.

My poor father was a hard-working general practitioner in Birmingham, where his name is still remembered and respected. About ten years ago he began to show signs of mental aberration, which we were inclined to put down to overwork and the effects of a mistake. Feeling my own inexperience to pronounce upon a case of such importance, I at once sought the highest advice in Birmingham and London. Among others we consulted the eminent alienist, Mr Francis Brown, who pronounced my father's case to be intermittent in the nature, but dangerous during the paroxysms. 'It may take a homicidal, or it may take a religious turn,' he said; 'or it may prove to be a mixture of both. For months he may be as well as you or me, and then in a moment he may break out. You will incur a great responsibility if you leave him without supervision.'

The result showed the justice of the specialist's diagnosis. My poor father's disease rapidly assumed both a religious and homicidal turn, the attacks coming on without warning after months of sanity. It would weary you were I to describe the terrible experiences which his family have undergone. Suffice it that, by the blessing of God, we have succeeded in keeping his poor rascal fingers clear of blood. My sister Eva I sent to Brussels, and I devoted myself entirely to his case. He has all intense dread of madness; and in his sane intervals would beg and pray so piteously not to be condemned to go, that I could never find the heart to resist him. At last, however, his attacks became so acute and dangerous, that I determined for the sake of those about me, to remove him from the town to the quietest neighbourhood that I could find. This proved to be Gaster Fell; and there, he and I set up house together.

I had a sufficient competence to keep me, and being devoted to chemistry, I was able to pass

the time with a fair degree of comfort and profit. His poor father, was so submissive as a child, when in his right mind; and a better temper complexion no man could wish for. We constructed together a wooden compartment, into which he could retire when the fit was upon him; and I had arranged the window and door so that I could confine him to the house if I thought an attack was impending. Looking back, I can safely say that no possible precaution was neglected; even the necessary table utensils were locked and padlocked, to prevent his doing mischief with them in his frenzy.

For months after our change of quarters he appeared to improve. Whether it was the bracing air, or the absence of any incentive to violence, he never showed during that time any signs of his terrible disorder. Your arrival first upset his mental equilibrium. The very sight of you in the Western world all those awful impulses which had been sleeping. That very evening he approached me suddenly with a stone in his hand, and would have slain me, had I not, as the best of the evil, struck him to the ground and thrust him into his cage before he had time to regain his senses. This sudden religiously-plunged me into the deepest sorrow. For two days I did all that lay in my power to soothe him. On the third he appeared to be calmer; but also, it was but the cunning of the madman. He had contrived to loosen two bars of his cage; and when thrown off my guard by his apparent improvement—I was engrossed in my chemistry—he suddenly sprung out at me with in hand. In the scuffle, he cut me across the forehead, and escaped from the hut before I recovered myself, nor could I find out which direction he had taken. My wound was a trifling, and for several days I wandered over the hills, beating through every clump of bushes in my fruitless search. I was convinced that he would make an attempt on your life, a conviction that was strengthened when I heard that some one in your absence had entered your cottage. I therefore kept a watch over you at night. A dead sleep which I found upon the morrow terribly mangled showed me that he was not without food, and that the homicidal impulse was still strong in him. At last, as I had expected, he made his attempt upon you, which, but for my intervention, would have ended in the death of one or other of you. He ran, and struggled like a wild animal; but I was as desperate as he, and, successful in bringing him down and conveying him to the cottage. Convinced by this failure that all hope of permanent improvement is gone, I brought him next morning to this establishment, and he is now, I am glad to say, returning to his senses. — Allow me once more, sir, to express my sorrow that you should have been subjected to this ordeal, and believe me to be faithfully yours,

JOHN LAWRIE CLARKSON.

P.S.—My sister Eva bids me send you her kind regards. She has told me how you were thrown together at Kirby-Mallison, and also that you met one night upon the hills. You will understand from what I have already told you that when my dear sister came back from Brussels I did not dare to bring her home, but preferred that she should lodge in safety in the



village. Even then I did not venture to bring her into the presence of her father, and it was only at night, when he was asleep, that we could spend a meeting.

And this was the story of this strange group, whose path through life had crossed my own. From that last terrible night I have neither seen nor heard of any of them, save for this one letter which I have treasured. Still I dwell on Gunga Pei, and still my mind is hurried in the words of the past. But when I wander forth upon the moon, and when I see the little grey deserted cottages among the rocks, my mind is still turned to the strange dream, and to the singular couple who began in opening my eyelids.

### THE PETROLEUM TRADE:

#### ITS DEVELOPMENTS AND ITS DANGERS.

THERE is no department of British mercantile industry which has developed with such marvellous rapidity as the Petroleum Trade. Since its beginning in 1859, when the total importations were about 2,000,000 gallons, it has increased by leaps and bounds until, in 1888, the amount brought into the United Kingdom reached the total of 100,847,478 gallons.

The existence of native petroleum, asphalt, or rock-oil, as it has been indiscriminately designated, has been known to the inhabitants of Persia and Japan from time immemorial. It is to the Persian language that we must go for the derivation of the term asphalt, the root signifying meaning to secrete; and the oil was so called on account of its exuding from the soil. The native asphalt of Persia and Japan would seem to have furnished the natives with a lamp-burner from the very earliest ages. Its first authentic use in Europe would, however, seem to date back no further than the latter part of last century, when a limited supply of 'lamp-oil,' obtained from a district in Calabria, was utilized by the Italian peasantry to light their dwellings. It is an interesting fact that the first use to which petroleum was put in this country was not that of a lamp-oil. Its chemical composition rendered it a most useful medium for preserving substances which have a strong affinity for oxygen. Chemistry employed it in preserving potash and metals possessed of kindred qualities. Hot asphalt, it was discovered, dissolved phosphorus and sulphur, and deposited them on cooling. It was found to be, too, an excellent solvent for gutta-serena, camphor, naphthalene, fatty and resinous bodies generally, and hence it was extensively used in the arts for these purposes. Its great use, however, is as a source of artificial light, and notwithstanding the present use of coal-gas and electric lighting, the employment of petroleum for this purpose still increases.

A perusal of the sources from which our supplies are obtained shows that the increase obtained from the Russian oil-wells in the neighbourhood of the Caspian is enormous. In 1869 the Muscovites supplied us with 500 barrels. Last year the imports from the same quarter amounted

to 771,000 barrels. During the same six years the supply from the United States had but increased from 1,329,000 to 1,355,000 barrels. That in the short space of six years Russian shipments should increase from practically nothing to more than half of those from America is most remarkable. Such phenomenal developments as these generally call into existence the provision of means for adequate transit and storing of such enormous quantities.

At first, petroleum was brought into this country in barrels or boxes carried in the holds of wooden sailing-vessels. As far back as 1878, ships were built at Jarrow for the purpose of carrying petroleum in bulk; but these vessels were never employed in the trade. Prior to 1886, some ordinary cargo-vessels underwent early alterations to convert them into petroleum-carriers; but they were only partially successful. The later petroleum steamers are spar-decked, and range from 120 to 200 feet in length, and from 1000 to 1800 tons gross register. They have their machinery aft, oil-tanks up to the main-deck, and a long trunk from bow to stern, but wide from the main to the spar-deck. The latter acts as a tank, and allows the oil to expand and contract without dangerously affecting the vessel's stability. To have the bulk, half full with the oil free to wash about, reduce the ship's righting moment, and consequently the steamer may be to be taken in loading and discharging. Water ballast-tanks are commonly fitted, and a peculiar middle-deck tank, patented by Mr. C. S. Brown, has been found specially useful. The oil-hold is divided into compartments by a centre line bulkhead, and by transverse bulkheads about twenty feet apart, and the ordinary structural details are modified in many respects, on account of the difficulties attendant upon making the work oil-tight. These vessels are all supplied with powerful pumps, and have large oil and water tanks laid along the main-deck, with branches into the hold, and connections to vent pipes from the above. The oil is pumped into large cisterns at the port of discharge.

A cargo may consist of several qualities of oil, and these are separated from each other by narrow water-spaces. Some two years ago, a sailing-vessel was built by the Jarrow Ship-building Company to the order of an American firm. She was designed to carry petroleum in bulk in competition with the steamers. The success attendant upon this new departure may lead to the more extensive construction of vessels of a similar nature. Petroleum vessels cannot be used for any other purpose on account of their peculiar arrangements and outfit. A proposal to carry palm-oil in a similar manner has been found impracticable on account of the corrosive ingredients which attack the steel, instead of preserving it, as petroleum does. In spite of this new departure in British shipbuilding, it is stated that the Persians as far back as 1780 were known to carry petroleum in bulk in their own vessels on the Caspian. Petroleum-carriers are generally fitted with the electric light, so as to ensure a minimum of risk from fire. With every precaution that modern science can suggest, the carriage of this oil is beset with much difficulty and danger.

The specific gravity of petroleum varies from