

## REPORT ON A PROVING OF SELENIUM

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A PROVING of *Selenium metallicum* was conducted in London from October, 1959, to June, 1960. Following the pattern of recent years it was carried out in three separate terms, each of which lasted about a month. We started well with 21 provers of whom 15 took *Selenium 6C* and six had placebo powders. The dose was one powder dry on the tongue each morning before breakfast. Unfortunately the numbers fell off each term so that we had only 16 the last term. However, we made the best use of these 16 by having no controls the third term.

There were 13 men and 8 women, and of these 4 were doctors, the rest missionary students. We hoped in the beginning to have many more of the Indian doctors, but most of them did not return their diaries. The potencies used were 6C, 30C and 12C. The first and second terms one powder was taken daily, but the last term we tried the powders night and morning which seemed to produce more symptoms more violently.

The experiment was a double blind one as usual, with the provers and controls chosen by "random selection". Each term we changed the provers and controls so that we had, in point of fact, 43 separate "proving terms" and 11 "control terms".

Symptoms commenced on the second to twelfth day, averaging the fifth day. Seven of the provers had most of their symptoms 12C, 3 had most from 30C and 2 had most from 6C.

### SELENIUM

Se. Atomic No. 34. Atomic weight 78.96.

A non-metallic element, which is rarely found in its native state, but generally as a compound of one of the heavy or precious metals, e.g. copper selenide, lead selenide, mercury, iron, gold, etc. It is closely allied to sulphur in its chemical properties, and often replaces sulphur in some sulphur compounds. Its chief source of preparation is a by-product in sulphur production. It exists in two main forms, an amorphous red variety used in this proving, and a crystalline grey form. *Selenium metallicum* is the substance which has the peculiar property of light sensitivity, i.e. its power of conducting electricity is modified by exposure to light. Selenium forms compounds similar to sulphur compounds, e.g.  $H_2S$  and  $H_2Se$ ,  $SO_2$  and  $SeO_2$ . Its chemical reactions are also similar to sulphur. Its atomic weight of 78.9 places it between arsenic and bromium and it is in the sixth group of Mendeleef, with oxygen, sulphur and tellurium.

Selenium was discovered in 1817 by the Swedish chemist Berzelius, who named it after the Greek goddess *Selene*—a moon goddess. He chose

the name because of the element's similarity to tellurium which he had earlier discovered and named after the earth (Tellus). About 1873 it was discovered that grey selenium changed its electrical resistance under the influence of light, up to a thousandfold, and also that a simple electric circuit containing selenium generates electricity when exposed to light.

The photo-electric cell developed from this about 1930. This is an electric circuit containing a thin film of selenium which develops a current on exposure to light, which can be measured on a galvanometer. This is used in exposure meters, colorimeters, burglar alarms, etc. Selenium's other uses include colouring glass red, vulcanizing rubber, and as an insecticide. As insecticide it is sprayed on fruit trees or added to the soil as sodium selenate. It kills a wide variety of insects, but inevitably certain flies, beetles and wasps appear to be immune. Selenium came to the notice of modern science about 1929 when it was discovered in America that certain serious and often fatal diseases of cattle and sheep were due to this substance. It was found that selenium is absorbed from the soil by plants in amounts sufficient to make them poisonous to animals and man. From this original work by Franke, a whole new field of research opened upon the role of the minor elements in the health and sickness of both animals and man.

Certain plants growing on soil containing selenium accumulate a poisonous amount of the mineral. The plants concerned belong mainly to the vetch family, *Astragalus* (also *Xylorrhiza* and *Oonopsis*), but many other plants are involved, and they are now known as "selenium indicators". They often grow much more beautiful on selenium rich soil, as though stimulated by the poisonous amount they absorb from the earth. The same soil will kill certain other plants so that the vegetation changes in the area of the seleniferous soil. All the plants in these regions absorb some selenium, but a lethal amount is taken up only by these so-called "selenium indicators".

Selenium is as poisonous to animals as arsenic. It is the only mineral element known to be absorbed by plants in sufficient quantity to make them lethal when consumed by animals. Chronic poisoning in cattle can be caused by as little as 10 parts per million in the food, i.e. 1/100,000 or 5x potency.

Selenium poisoning in animals can be acute or chronic. Acute poisoning produces first an uncertain gait, then dark, watery diarrhoea, fever, laboured rattling breath with bloody froth from the nostrils; bloating of the abdomen quickly follows and an excessive amount of urine is excreted. In a few hours respiratory failure may ensue. Such dramatic deaths had occurred many times in America, involving sometimes a hundred cattle, sheep or horses in one night.

#### CHRONIC POISONING

This may take two forms:

- (a) *Blind staggers*, where the vision is impaired and the animal staggers.

about aimlessly. Eventually blindness develops and paralysis with respiratory failure.

(b) *Chronic poisoning*, if more slight, causes loss of hair, deformity of hooves, emaciation, anæmia, stiffness, lameness from loss of hooves, or deformity. A great deal of experimental research has been done on animals and this shows that the organs most affected by selenium poisoning are the liver, kidneys, lungs and spleen, heart, muscles, bone and skin. It was also found that arsenic fed to experimental animals protected them to some extent from poisoning.

Selenium is found in a great variety of foods from farms on seleniferous areas. This prompted an investigation of families living in these regions. In 1936, Smith *et al.*, conducted a survey of 111 families. They are farming families living in areas in certain of the American states known to be rich in selenium. The investigators discovered no symptoms of illnesses which were decidedly characteristic of selenium poisoning. Almost all the people seen had selenium in their urine, even in amounts so high as to suggest poisoning. There was, however, no correlation between the selenium percentage in the urine and the clinical findings. They considered that selenium was probably responsible for some of the illnesses in the region and especially the following symptoms:

- (1) Icteric discolouration of the skin.
- (2) Bad teeth.
- (3) Arthritis.
- (4) Abnormal nail growth.
- (5) Liver disease.
- (6) Skin eruptions.

In 1937, Smith and Westfall carried out another similar survey. One significant observation was that the female members had less selenium in the urine than the males. The symptoms and illnesses which they considered significant were:

- (1) *Gastro-intestinal disturbances.*
- (2) *Bad teeth.*
- (3) *Icteric skin.*
- (4) *Recurrent jaundice.*
- (5) Vitiligo.
- (6) Pigmentation of the skin.
- (7) Sallow skin.
- (8) Dermatitis.
- (9) Pathological nails.
- (10) Cardiorenal diseases.

In 1940 Lemley described a case of acute dermatitis venenata in a farmer which was finally diagnosed as being due to selenium poisoning. He was treated with bromobenzene (3 min. t.d.s. for 5 days). This drug increased the excretion of selenium, and cured the skin eruption. In 1941 several other

causes of skin eruption are quoted by Lemley and Merryman, one of whom had an eruption on the hairy parts of his body, particularly those parts *exposed to the light!!* He had in addition inability to concentrate on his work (see proving). His wife was similarly affected, though less noticeably so. These workers (Lemley and Merryman) consider that selenium may be responsible for:

- (1) Cirrhosis of the liver.
- (2) Gastro-intestinal diseases.
- (3) Renal damage.

So that the conclusions of different field workers do not quite agree and more work is continuing in America and other countries.

#### PROVING OF SELENIUM

Our proving of *Selenium* produced a good picture on the whole, which agreed by and large with the former drug picture.

Its effect *on the mind* was mainly one of tiredness, with lack of enthusiasm. Thus depression was often accompanied by tiredness, or a drowsy felling. They described themselves as detached, forgetful, can't be bothered doing anything. Irritability was less marked. *In the head* there was a characteristic headache which was frontal, throbbing or pressing, over the eyes especially right and extending back to the occiput. < heat, < movement, > open. Vertigo occurred a few times. *The eye symptoms* were also quite prominent, mainly soreness, burning, with twitching of the lids and the vision blurred, < movement. Stomach and abdomen were affected with pains mainly in the lower abdomen, but one prover had hypersensitivity over the area of the left kidney. The most outstanding group of symptoms occurred in the *male genito-urinary* system. These were frequency of micturition by day and night, nocturnal enuresis, irritation of the penis with redness. Eight of the 13 male provers recorded genito-urinary symptoms. The females' symptoms were not so remarkable.

The second group of important symptoms was in the *chest and heart*, where again the men produced the picture. This was of pain or pressure, or constriction of the chest below the sternum. Also pains in the left chest or over the heart extending to right or neck or left arm, < breathing or movement. One prover had exhaustion, especially in the spine, otherwise the back and limbs had no characteristic pain or other sign.

Sleep was disturbed and restless, with provers waking suddenly, hot and perspiring. Dreams were frequent, vivid and disturbing in most cases, with dreams of fire and murder being the main subjects.

A few *skin symptoms* occurred, with only one prover mentioning dryness of hair (and none of them lost any hair).

As regards *generalities*, exhaustion and weakness were recorded by a few. The symptoms on the whole were < male, < movement, > lying down, < heat, > open air.

## PREVIOUS PROVINGS OF SELENIUM

*Selenium* was introduced into the materia medica by Hering who conducted the first proving. Later it was re-proved by Schreter, using two drops of the 4th dilution on the evening of the first day, and again, using one drop of the 3rd dilution. Berridge (1873) took 3 globules of the 1,600th potency (Jenichen) and later 200th potency (Lehrman) night and morning for one week.

The general picture of *Selenium* which emerges from these provings is one of marked physical and mental weakness, as one finds in *Phosphoric acid* (Kent) or *Stannum* (Nash). The weakness is brought on by mental or physical labour, it may follow fevers such as typhoid, or result from excessive seminal emissions. The weakness seems to be especially related to the male sexual organs. Weakness is worse in hot weather, or is even caused by heat. There may be emaciation accompanying the weakness, or hoarseness from weak vocal cords.

There are symptoms suggestive of chronic liver disease, e.g. anorexia, vomiting and a desire for alcohol.

Skin eruptions occur on the head and hands mainly, including loss of hair.

On the whole the picture of our proving is similar to that of the old ones, especially as regards mentals, headaches, eyes, toothaches, genito-urinary symptoms, chest pains and dreams.

However, the old proving had more pronounced vertigo and falling out of hair on the scalp and eyebrows recorded by Hering. Their abdominal symptoms were more marked, also their general weakness and skin eruptions. No doubt many of these extreme symptoms are due to the lower potencies used in the old heroic provings.

In our account of the drug the mentals are more definite (26 as against 9), adding depression to the lack of vitality and apathy. Also the headaches are more decidedly throbbing above the right eye → back. Again the heart and chest pains and constriction is more clear. Lastly, the restless nights disturbed by nightmares were more consistent in our new proving.

## SUMMARY AND CONCLUSION

The action of *Selenium* in the human body appears to have a very wide range. The fact that the liver is so obviously affected may have to do with the method of entry into the body, namely, as food. However, it is a fact that the liver is the main organ affected as shown in chronic poisoning in livestock and experimental animals, strongly suspected in human toxic effects, and confirmed by the provings, especially the old ones. Secondly, the skin, and especially the hair and nails are affected, as seen in animals and man and indicated in the provings. Thirdly, the uro-genital system, which comes out markedly in both old and new drug provings, and is indicated by animal experiments, where atrophy of the gonads takes place, and the embryo

animals are affected. Other organs affected are the heart, the eyes and the teeth.

These facts seem to be certain from a study of selenium in nature, in animals and in man. Yet there are some very interesting and mysterious sides to this mineral. How, for instance, do we understand its peculiar property of light sensitivity and relate this to the picture of illness it presents in the body? Or again, what does this strange phenomenon mean, that it can be absorbed by certain plants, without killing them and yet have a devastating effect on animal health?

I would like to conclude by thanking Dr. Thomson Walker for his guidance in this proving and to thank Mr. Everitt of Nelsons for his very helpful cooperation.

#### SELENIUM METALLICUM PROVING

The proving was carried out from October, 1959 to June, 1960.

There were 15 provers and 6 controls.

The potencies used were 6C, 30C, and 12C.

#### MIND

##### *Depression.*

Depression in the morning, or < evening.

Mental depression and pent-up feeling.

Depressed, sleepy, or giddy.

Depressed on 2nd day of M.P.

Depression and tiredness, feels that nothing is worth while.

Mentally dull.

Mentally confused and tired.

Tired and heavy feeling < evening.

Drowsy in the afternoon.

Tired and sleepy, < evening.

Lack of energy and brightness.

Drowsy and weepy, burst into tears.

Detached, disinterested feeling with depression.

Everything seems pointless, no enthusiasm.

Makes more mistakes than usual, drops things.

Can't be bothered doing anything.

Difficulty in concentrating.

Irritable, < noise, < people, < evening.

Irritable with myself and people.

Irritable and sensitive to noise including talking.

Feels nervous and sensitive.

Anger for no reason.

Everything makes him cross.

Nervous tension causes headache.

Restless, can't concentrate.  
Fear of disease.

- HEAD *Vertigo*, giddiness, or lightheaded feeling.  
*Frontal headache*, < over R. eye.  
Frontal headache sharp and momentary.  
Frontal headache over both eyes.  
Frontal headache like a vice, < 4 p.m., > open.  
Headache above L. eye → occiput.  
Headache above L. eye < nervous tension.  
*Pressing pain behind R. eye* spreads to forehead and R. temple.  
Headache behind the eyes, < L., feel congested.  
*Congestive headaches*, < occiput L. or R., < stooping < heat,  
> open air.  
Severe *throbbing headache* on lifting head, > lying down.  
*Sharp headaches* from L. mastoid to L. temple.  
Sharp stabs < R. side.  
Headache on vertex or R. side of head.  
Headache walking in the sun.  
Headache during M.P. early in the morning.  
Fullness and heaviness of the head.
- EYES AND VISION Eyes sore, burning, tired, with red spots on the eyelids.  
Eyes heavy, hot and sore.  
Eyes bloodshot.  
Heavy eyes, < 2-4 p.m.  
L. eye waters.  
Eyes have a sticky yellow discharge in a.m.  
Dry tear duct R. → L.  
Swollen L. eyelid.  
Spasmodic twitching of lower eyelid.  
Twitch of R. eye.  
Twitching of R. eye.  
Blurred vision in the afternoon, can't focus.  
Difficulty focusing the eyes, with vertigo, < movement of head or body.  
Vision blurred, objects seem to move when looked at.
- FACE Irritating rash on face < heat, > open.  
Face hot, feet cold.  
Boil on R. cheek increased very slowly, and discharges pus and blood through a small opening.
- MOUTH Small ulcers in the mouth and gums which bleed.  
Sour taste in the mouth.  
Cold sore on upper lip.

Toothache L. molar → general toothache.

Toothache in molars.

- THROAT** Dry throat with great thirst.  
Sore throat and dryness on waking < L.  
Burning pain in the throat.  
Throat hot and tickling, voice hoarse and painful, with sore throat on L. < swallowing.  
Irritating tickle in the throat.
- STOMACH** Heartburn.  
**AND** Pain across abdomen.  
**ABDOMEN** Sharp pain in the epigastrium on waking, < taking a deep breath, > doubled up.  
Cramp in the lower abdomen.  
Pain in the lower abdomen < L.I.F.  
Acute wind pain in the lower abdomen < 8 p.m.  
Weak feeling in the abdomen.  
Hyperæsthesia of the skin over the L. abdomen and area of L. kidney.  
Feeling of something pressing outwards like a hernia in the L. lower abdomen, with tenderness of the area < coughing, < B.O., > pressure.
- RECTUM** Constipation with flatulence or with flatus.  
Obstinate constipation.  
Soreness of rectum after loose stool.  
Dryness of the whole intestinal tract.  
Itch of the rectum.  
Violent pruritus ani in the evening.  
Severe pain in the coccyx, < sitting, < walking.
- URO-GENITAL,**  
**Male** Increased micturition, both frequency and quantity.  
Passing more urine than usual.  
Had to get up twice in the night to pass urine.  
Nocturnal enuresis (had it as a child).  
*Irritation of the penis.*  
*Tip of the penis became red and itchy, > cool washing.*  
Penis became red and inflamed at the tip and very itchy.  
Small swelling in penis discharged a small amount of pus and healed leaving a little swelling.
- Female** M.P. early, scanty and very painful.  
Pain of M.P. wakens her.  
M.P. painful on the first day.  
M.P. early and scanty, or early and heavy.



- CHEST AND HEART      Constant pain beneath the sternum like a strained muscle  
 < movement, < breathing.  
 Pain like a pressure in front of chest, < open, > warmth.  
 Pain in L. upper chest; constant ache for 2 hours in the evening.  
 Slight pain in the centre of the chest 8-12 a.m.  
 Severe chest pain; chest feels restricted.  
 Pain in the chest spreads up to the neck.  
 Stitching pain in the L. chest below the heart, < breathing out,  
 < 12-5 p.m.  
 Tight constricting feeling in the chest.  
 Pain under the sternum → R., chest → R., axilla.  
 Pain in the L. chest → L. elbow.  
 Pain over the region of the heart; constant dull pain, or sharp  
 stabs, < moving the arms.  
 Sharp stitching pains in the heart region.  
 Dull constant pain in the region of the heart, < 12 noon.  
 Feeling of tension and excitement in the diaphragm with palpita-  
 tion on lying down.  
 Stitching pain in L. side with cough.  
 Pain below ribs on R. < movement.  
 Dry cough with pain in axilla.  
 Sharp pain in L. breast.  
 Ache in R. breast, tender to touch.
- BACK      *Backache.*  
 Pain in the back wakened him at 6 a.m. with sharp stabs and  
 stiffness, < first movement.  
 Dull pain in R. scapula, < movement.  
 Pain in the scapula like a line across the back.  
 Stabbing pain under R. scapula < a.m., < deep breath.  
 Exhaustion especially in the spine.
- LIMBS      Small spot on L. forearm.  
 Small pale red patch of eruption on the forearm.  
 Burning pain in the L. shoulder.  
 Dull pain in the R. shoulder.  
 Shooting pain in the L. ring finger and L. arm.  
 Mild tingle like an electric shock in the palm of the L. hand  
 or fingers when lifting objects.  
 Burning sensation on the R. hand.  
 Ache in the R. hip, < sitting, > stretching.  
 Pain in the L. knee → R. knee.  
 Sharp pain in L. knee < movement.  
 Pain in the L. knee, < flexion, > extension.  
 Itch of legs in evening undressing.

Cold feet.  
*Coldness of the lower part of the body.*  
 Cold feet at night.  
 Feet warm and sweating.

- SLEEP Difficulty getting to sleep.  
*Restless sleep, exhausted in the morning.*  
 Disturbed sleep, tossing and turning.  
 Wakened suddenly in the night, 1.30 a.m.-2.30 a.m.  
 Wakened hot and perspiring in the early a.m.  
 Hot skin at night, have to get out of bed and have a cool sponge down.  
*Dreams more than usual.*  
*Disturbed by dreams.*  
 Sleep disturbed by nightmares.  
 Dreams are more vivid.  
*Dreams of fire, or of robbers, or of murder.*
- SKIN Pimples of the skin.  
 Rash on the skin near elbow.  
 Itch of fingers, elbow and knee.  
 Itching all over the body, especially the trunk.  
 Perspiration of feet and axillæ.  
 Dryness of skin and hair.
- GENERALS No energy, exhaustion from running.  
 Dryness all over.  
 Stiffness of body on waking.

#### IMPORTANT SYMPTOMS

##### *Mentals*

Depression and tiredness.  
 Apathy and inability to get on with life.

##### *Headache*

Throbbing and pressing.  
 Frontal and behind R. eye, < heat, > open.

##### *Eyes*

Hot and sore.

##### *Vision*

Blurred, < movement.

##### *Uro-genital, especially male*

Frequency of micturition, nocturia, enuresis.  
 Redness and irritation of penis.

##### *Heart*

Pain in substernal region or heart, spreads to neck, and L. arm,

< breathing, < movement.

*Sleep*

Restless, with vivid dreams or nightmares.

#### A SELENIUM CASE

Mr. T., age 57 years.

History of jaundice in 1940, since when he has had recurrent attacks of "liverishness". During these attacks he had nausea, anorexia, diarrhoea with pale coloured stools, frequency of urine which was passed in large quantities. He was very sluggish, especially in the morning, and later irritable and depressed. He always had a sallow skin and during his bouts of liverishness he had excessive perspiration which stained his clothes yellow. (This symptoms had five remedies including *Selenium* in black type in Kent's *Repertory*.)

Extensive examination in hospital had revealed nothing except "Hepatic deficiency". He was given *Chelidonium* and responded to some extent; and later *Lyc.*, *Nux vom.*, and other liver remedies. After some months, although he was generally better, he still had offensive perspiration staining his under-clothes yellow, and felt liverish. He was given *Selenium* 6 b.d. for 1 month, after which he reported that all his symptoms had improved greatly during this time. The colour of his skin was much better now, almost white, having been sallow or "icteroid" when first seen.

#### OPENING OF THE DISCUSSION

By DR. C. O. KENNEDY

MR. PRESIDENT, LADIES AND GENTLEMEN,

I think we should congratulate the organizers of the Congress in finding such a stimulating paper and speaker to open the Meeting—especially as provings form the basis of Homœopathy, in the past, as well as, the future.

Of the actual symptoms themselves I shall say little, except that they confirm the earlier studies on selenium, with perhaps some altered emphasis, and should allay the doubts of any who distrust older work.

It might be worth considering *what are provings*, and what can we learn from them.

They demonstrate not only which organs and cells are affected by the drug, but their peculiar reaction to the stimulus (i.e. the symptoms with modalities). Now, if in disease the symptoms are "identical", then we know that those same cells are reacting to the "germs", and in the selfsame way. Then that drug will act at the seat of the trouble and in each organ of the body, stimulating the diseased cells.

This is Homœopathy.

As our knowledge of physiology extends it becomes more obvious that all the cells of the body are affected in disease, to a greater or lesser extent. For example hypertension may result from nephritis, from infection of the renal tract, from renal ischæmia, from altered blood flow through the mid-

brain, or from wearing high collars in the case of giraffe-necked women: each will produce its own peculiar train of symptoms, yet medical research today is trying to find *one* drug to cure the disease. The surgeons have shown how illogical this approach is, and this explains their ascendancy today; and we alone among the physicians stand with them for a rational approach.

The orthodox researchers, with all their enthusiasm—and we must give them credit for this—are robbed of success for neglecting this: side effects is another cause of failure, if these could be matched with the patient's symptoms, perhaps they would have success, and Homœopathy! Another cause is the resilience of the body to any stimulus, producing "tolerance". They ignore the totality of disease.

But for all this, why is Homœopathy in the doldrums? Do we cope with epidemics with the same success as Hahnemann did in the last century, and blazed his trail through Europe? Are our results with heart disease, cancer, lupus erythematosus better than traditional methods? Should our approach be simpler? For instance, X-ray cures (and causes) cancer. Would radiotherapy given strictly according to homœopathic principles produce better results—the single dose, and repeated only when necessary? Should we as physicians concentrate on smaller fields of medicine; each getting to know better the drugs which affect particular tissues? Do we get lost among our "totality of symptoms", and are we unable to see the wood for the trees?

Dr. Raeside has certainly not lost perspective. Perhaps we should all, students and doctors, prove drugs on ourselves as Hahnemann and his followers did in the past, acting as if we believed that provings are still the basis of Homœopathy. If it is confirmed that provings can be carried out in two weeks, as Dr. Raeside's work suggests, these could be organized easily. Once you have experienced the symptoms you will not forget them, they are part of you; you can sympathize with the patient, for you have experienced them and perhaps find the same difficulty in expressing them.

Perhaps our lack of success may be due to faulty techniques of proving. May I suggest the following points for consideration:

1. I feel the assessor should *not* himself be a prover.
2. He should not know what the drug was until after he had assessed and correlated the provers' symptoms. Attention to these will, I suggest, enhance the impartiality of the assessor.
3. Controls are, I feel, essential, although Dr. Brieger has, I know, strong views on this point. My reasons are: some symptoms are common to the provers and controls, and so their value in the provings can be modified or deleted. One must remember the possibilities of epidemics, of poisoning from aluminium (or other chemicals in a complex synthetic world), of collaboration, of suggestion. As students, we must recall how we suffered from each disease in medicine as it was unfolded, and these students are no exception. They attend materia medica lectures during the period of the prov-

ing.—c.f. chest and heart symptoms, chest pain of *Selenium* and *Cactus*.

I know that Dr. Raeside has found, as Dr. Templeton did before him, this paucity of symptoms among the controls. This fact enhances rather than detracts from the value of the proving. During the proving each has formed the impression of "no result", yet definite correlation was found in the final assessment.

Perhaps I could ask Dr. Raeside

1. Whether the controls did in fact produce symptoms similar to the provers' symptoms, and how did he assess them?

2. "Depression and irritability" seem to be common factors in recent provings; does he consider this a sign of the twentieth century rather than the drug? Are these symptoms present in the controls?

3. Did he notice that high potencies produced more mental symptoms than the lower?

4. One notices the absence of the outstanding symptoms—weakness from heat of the sun, and aggravation from the sun—as noted by Kent. Is this due to the absence of sunshine during the provings? Alopecia is also missing, as is any reference to the vitality of the hair.

In conclusion, I would like to congratulate Dr. Raeside on giving as such a stimulating and comprehensive paper on all the aspects of *Selenium*—without losing either himself or the audience in the maze of detail. Unless one has undertaken a proving, I do not think one can know the vast volume of work which goes into a paper of only thirty minutes.

Thank you.

#### Replies by Dr. RAESIDE

1. Controls did produce symptoms during the *Selenium* proving, as they seem to do with all provings. Their symptoms were never severe, nor were they constant in one control, nor in the various controls when their symptoms were compared. No doubt one could make a "drug picture" from the control symptoms, but it would be a weak, vague thing, lacking any of the body of a real drug.

2. As regards depression and irritability, it is certainly true that these symptoms have appeared in all the recent provings. In the *Selenium* picture they were usually linked with some degree of apathy, which was not so in the other provings.

3. It is not really possible to say whether the higher potencies of *Selenium* produced more mental symptoms than the lower potencies. All three potencies used have produced mental and physical symptoms.

4. Some of the apparently important *Selenium* symptoms are absent in our proving, but this may be due to the potencies used by us, as compared with the very low potencies used in some of the older provings.

—*The Brit. Homæo. Jounl.*, Oct., '61