Study of Different Scales of Preparation

To bring uniformity of strength of various potencies, Dr Samuel Hahnemann introduced a standard scale for preparation of potencies known as the *centesimal scale* which was exclusively used in France and many english speaking countries. Later, Dr Constantine Hering introduced the *decimal scale* which was used by H.P.I. for preparation of potencies. In 1921, another scale, viz., *50 millesimal scale* or *L.M. scale* was introduced for the preparation of potencies as mentioned in the 6th edition of *Organon of Medicine*.

SCALES OF POTENTISATION

Scales for trituration:

a. Decimal scale.

b. Centesimal scale.

Scales for succussion:

a. Decimal scale.

b. Centesimal scale.

c. 50 millesimal scale.

DECIMAL SCALE

Decimal scale was introduced by Dr Constantine Hering (1800 - 80) of Philadelphia to potentise the snake venoms. A more detailed description of this scale was given by Dr Vehsemeier of Berlin in 1836 as, "*On a closer examination of the progressive proportions, which Hahnemann teaches for the potentiation of remedies, many defects manifest themselves. And especially this, that the spaces between one grade of dilution and another are too great. Therefore a year ago, already, I began to prepare my remedies in a manner somewhat different from Hahnemann's quantitative proportions, and am so entirely satisfied with the result that I submit the scale of progression, which I myself employ to the examination and judgement of my colleagues."*

Decimal Dilution	Drug Power	Hahnemann's Centesimal Dilution
1	1/10	-
2	1/100	1
3	1/1000	-
4	1/10000	2
5	1/100000	-
6	1/1000000	3
7	1/10000000	-
8	1/100000000	4

"Thus it is very easy to prepare Hahnemann 's dilutions from mine; namely, if we multiply the Arabic number of Hahnemann 's potency by two, we obtain the number in the decimal scale, which is equal to the former. On the other hand, if we divide the number of my dilutions by two and have no remainder, we obtain the number of the Hahnemannian dilution, which is equal to the former. If however, there is a remainder, Hahnemann has no corresponding potency."

Principle: The first potency should contain 1/10th part of the original drug and each succeeding potency should contain 1/10th part of the previous potency.

Symbol: The potency in this scale is denoted by suffixing the letter 'X' or 'x' to the number

indicating the potency i.e. the first potency is 1X, the second potency is 2X, and so on.

Application:

- It is used in the old method by Hahnemann for Potentisation.
- It is used to make lower potencies, especially up to 6X.
- It is the only scale used in the modern method of preparation of drugs.

PREPARATION OF POTENCIES

Liquid Potencies (Soluble substances – Succussion)

A well-cleaned, round phial of 15 ml. capacity is taken. 1 ml. of the tincture or solution is poured in the phial and then 9 ml. of rectified spirit (60' O.P.) i.e. dispensing alcohol is added to it. 1/3rd of the phial thereby remains empty for succussion. It is now filled with a new velvet cork and ten downward strokes of equal strength are given. 1x potency is thus prepared. The phial is tightly stoppered and labelled properly to indicate the name of the medicine, potency and date of manufacturing. All succeeding potencies are prepared under this scale by mixing one part of the preceding potency with nine parts of dispensing alcohol. The original drug substance or the tincture or solution is diluted nine times. Hence, it gives a dilution factor of ten termed as decimal scale.

Solid Potencies (Insoluble substances – Trituration)

For making 1x potency, one part by weight of the crude drug is triturated with nine parts by weight of sugar of milk, for a time period of one hour (which includes three stages each of 20 minutes including grinding, scraping and mixing).

All succeeding potencies are made by taking one part of the preceding potency and triturating it with nine parts of sugar of milk. Trituration is carried on up to 6x potency after which it is converted to liquid potency. The 8x liquid potency is prepared by succussion.

CENTESIMAL SCALE

Centesimal scale was introduced by Dr Samuel Hahnemann in § 270 of the 5th edition of *Organon of Medicine* (1833).

Principle: The first potency should contain one-hundredth part of the original drug and each succeeding potency should contain one-hundredth part of the potency preceding it.

Symbol: The potency in this scale is denoted by suffixing, the letter 'C' or 'c' to the number indicating the potency. In practise, it may also be denoted by simple numericals with no suffix. The letter 'C' is the roman numeral for 100. Therefore, Belladonna 2C implies Belladonna 200 which, in turn, implies 200th potency of Belladonna. This scale is denoted by simply affixing the numericals after the name of the drug, e.g. Apis mellifica 3, Apis mellifica 6, which denote the 3rd and 6th centesimal potency of Apis mellifica. These may be denoted by 3C or 6C but this kind of denotation may bring, confusion with 'C' which means 100 as 2C = 200th potency. Therefore, some of these potency strengths are designated by Roman numericals e.g. 200 as CC; 1000 as M or 1 M; 10,000 as 10 M; 50,000 as 50 M or L.M; 100,000 as C.M; 500,000 as D.M; 1000,000 as MM and 500,000,000 as DMM.

Application:

- It is useful for the process of potentisation by the old method as established by Hahnemann.
- It is used for making higher potencies.

*Centesimal scale has been discarded by the new official pharmacopoeia as 10% drug strength is used as standard for uniformity. In the new method, only decimal scale is used.

PREPARATION OF POTENCIES

Liquid Potencies (Soluble substances – Succussion)

A well-cleaned round phial of 15 ml. capacity is taken. One part of the tincture is poured in the phial and mixed with 99 parts of dispensing alcohol which is added to the phial in such a way that 1/3rd of the phial remains empty for succussion. It is then corked with a well fitted, new, velvet cork and ten downward strokes of equal strength are given. The first potency of this scale ready. The phial is tightly stoppered and labelled properly to indicate the name of the medicine, potency and date of manufacturing (preparing). All succeeding potencies are prepared under this scale by mixing one part of the preceding potency with ninety-nine parts of dispensing alcohol. For each new potency, a separate phial has to be used.

The mother tincture is reduced materially to one-hundredth of its original strength. Hence, it is termed as the centesimal scale. This dilution by 99 parts of an inert vehicle is followed by a process of potentisation, resulting in an increase in the potency of the original drug. As all mother tinctures, excepting a few, are prepared in such a way that the drug strength is one tenth, it is in fact the first decimal (1X or 1D) preparation. To prepare on centesimal scale, this mother tincture, with a drug strength of 1/10, is raised to 2X or 2D potency by adding one part of the mother tincture to 9 parts of the vehicle and giving ten succussions. The 2X or 2D potency thus prepared, is mathematically equivalent (in terms of the drug strength) to the first centesimal potency 1C. All succeeding centesimal potencies are prepared by succussing one part of the preceding potency with 99 parts of the suitable vehicle. [H.P.I.]

Solid Potencies (Insoluble substances – Trituration)

For preparing the first potency, one part by weight of the crude drug is triturated with ninety-nine parts by weight of sugar of milk for a period of one hour (which includes three stages each of 20 minutes including grinding, scraping and mixing). For the second potency, one part of the first potency is triturated with ninety-nine parts of sugar of milk, in the usual way. Trituration is done up to the 3rd potency and the fourth liquid potency is prepared by succussion.

Relation Between Decimal and Centesimal Scales

Drug dynamisation involves a peculiar reduction according to scale as well as a peculiar nature of a frictional process, liberating the energy of the drug used for medicinal purposes. Since both these processes cannot be studied separately, a comparison between scales is fruitless, which is explained as follows

Decimal Scale	Centesimal Scale
1. 1x potency has 1/10th part of the original drug. (Drug strength of 1x=1/10)	1c potency has 1/100th part of the original drug. (Drug strength of 1c=1/100)
2. 2x contains: 1/10 x 1/100 = 1c potency and so on.	2c contains: 1/100 x 1/100 = 1/10,000 = 4x potency.
3. It is considered better for lower potencies up to 6x.	This provides more rapidly acting remedies in higher potencies.

If one compares mathematically the drug strengths of 1C and 2X, they happen to be same, i.e. 1/100. One may tend to believe that 1C is equivalent to 2X. But, one needs to understand that the succussion carried out after diluting centesimally is with 10 succussion strokes; whereas in the decimal scale, this is carried out successively in two steps, with 10 strokes given at each step of dilution. Hence, if the amount of drug present in 2X is the same as that in 1C, the energising process is carried

out twice as compared to 1C. This results in a difference in the energy levels of the two potencies, and hence a difference in their powers. It is thus absurd to substitute one for the other.

50 MILLESIMAL SCALE OR L.M. SCALE

Hahnemann, while in active practice at Paris, towards the last few years of his life, completed a thorough revision of Organon by carefully going over paragraph by paragraph, making changes, erasures, annotations and additions. In Paris he had to deal with a large number of patients with unusually nervous excitability and noted troublesome medicinal aggravations even after using the 30"' centesimal dilutions prepared as per his instructions laid down in the fifth edition of Organon. *This led him to a process of further minimizing the material quantity of drugs to start with and using 100 succussions for each potency preparation.* These "fifty millesimal potencies" are based on the principle enunciated by Hahnemann in his sixth edition of Organon of Medicine.

Hahnemann's latest idea was to minimize the material quantity of drugs for averting avoidable medicinal aggravations and at the same time making it possible to repeat the doses of medicine to expedite cure (especially in chronic cases) as well as to maintain the maximum degree of unfoldment of latent dynamic properties of drugs. Accordingly, he shook up with 100 drops of spirit of wine, *not one drop* of the tincture, but a *globule* saturated with the medicine and dissolved in a drop of distilled water. These globules are of such size and weight that a hundred of them weigh one grain and a five hundred of which are more or less saturated with one drop of medicine of previous potency. Hence, 1/500th of a drop instead of one full drop was used. The material part of the medicine was decreased by 50,000 times (1/ 500 X 1/100 = 1/50,000) for each degree of dynamization and yet the curative powers of the medicines were increased tremendously. Potencies prepared in this way were described by Hahnemann "Medicamens au globule" as distinct from "Medicamens a la goutte" prepared according to centesimal scale.

EVOLUTION OF "NEW ALTERED BUT PERFECTED METHOD"

- Hahnemann was not completely satisfied with the medicinal solutions of centesimal potencies, especially in weak sensitive constitutions with chronic miasmic diseases. He found in certain cases that the -
  a. *Lower potencies were not able to stimulate a healing reaction;*
  b. *Yet at the same time, the higher potencies caused serious aggravations.* He wondered if it was possible to make homeopathic remedies that acted deeply, yet at the same time were gentler on the constitution. Even though the medicinal solutions had greatly improved the centesimal system he wondered how he could overcome aggravations in those cases that were weak, over sensitive, and at the present time incurable. Surely the answer to this question was not in raising the dynamizat ion to even higher and higher ranges of potency.
- By that time potencies prepared by Jenichen and other followers were reaching levels far beyond 1M, and in Hahnemann's experience, they were not suitable in weak cases with advanced tissue pathology because of the serious life threatening aggravations **they** could cause. Hahnemann's greatest desire was to cure these degenerative chronic **cases** as they proved to be the most resistant to his treatment.
- Hahnemann endeavoured to find means to

administer remedies in such a way that the least possible disturbances compatible with cure should result. To this end he made a great variety of experiments.

- The first in order was olfaction, and this he adopted in certain cases to the end of his life. But certain objections caused him to seek for some other means of moderating medicinal action.

  At this time Hahnemann was assisted by a Reverend Everest, who was in charge of making sugar globules for his remedies. He was a close friend and confidante of Hahnemann in his last experimental works. On July 30, 1853 a letter was published in the Times that Rev. Everest wrote to a Dr. Luthur in which he described the experiments he witnessed Hahnemann perform while he was improving the homoeopathic system.
- His next experiment was to dissolve three, two, or one globule in a glass of water, and then, carefully stirring, to put a dessert or teaspoonful of this into another glass. He still found, however, that in very delicate constitutions, excitement was produced. The attenuation was sometimes carried through two, three, four, live, and six tumblers; but it was a very inconvenient proceeding. He tried, in its order, the diminution of the number of shakes, but that seemed not to give the accurate result that he wanted.
- He tried many plans and made many experiments. At last, however, and the one that gave the most satisfactory results was-:

  "Starting from the first spirituous tincture of any medicine which was the third from the commencement (3C), and is, according to the ordinary notation, written I, instead of' adding one drop of this dynamization to one hundred drops of spirit of wine to make the next, and so continuing the dynamization by drops he moistened a few globules of a fixed normal size with it, and taking in the lint experiment, ten but in the latter and more satisfactory ones only one globule of those so moistened he dissolved that in a minute drop of water, and then added one hundred drops of spirit of wine. Having shaken it, he moistened globules with this, and having dried them, put them into a tube in his medicine chest, well corked; these he labelled 0/1. The next dynamization was procured by dissolving one globule of 0/ I in a small drop of water, and adding one hundred drops of spirit of wine; with this he humected a globule as before and called that dynamization 0/2...."

The reasons why Hahnemann was not satisfied with the centesimal scale were —

1. The potencies were not acting rapidly.
2. The period of cure took a very long time to his great dissatisfaction.
3. The time and frequency of remedies were difficult to ascertain correctly.
4. In certain weak sensitive constitutions with chronic miasmic diseases, lower potencies were not able to stimulate a healing reaction; yet at the same time, the higher potencies caused serious aggravations.

His highest ideal of cure was, to cure rapidly, gently and permanently. Hence he felt the necessity of modifying the technique of drug dynamization and the method of preparation of potencies to achieve his ideal of cure.

There were three alternatives for the modifications and preparations for the change—

1. The quantity of the medicine for the preparation.
2. The ratio of the vehicle to the medicine.
3. The number of succussion strokes.

The basis for the modification was that —

1. The less the material quantity of the drug, lesser are the chances of medicinal aggravation;
2. The more potentized a remedy is, the more it acts permanently and rapidly;
3. The more a medicine is diluted, less is its duration of action, action is milder and hence repetition could he done without harm.

Hence the solution was —

1. To widen the gap between the medicinal substance and the diluting medium, incredibly reducing the medicinal quantity to obviate any furious potency exaggeration.
2. 100 succussions, to develop the powers of medicine to the desired extent, for a most rapid and long lasting penetration.

After many trials and some tribulation in the years between 1837 and 1838 11;11111cm:inn discovered the 1/50,000 dilution rate and created the new potency system. Hahnemann began to do clinical experiments with raising the dilution ratio of his dynamizations instead of raising the potency because he felt that homeopathy had already developed the methodology of the centesimal potency as far as it was possible to go.

Of his new LM potency system Hahnemann said:

"This method (),f dynamization, I have found after many laborious experiments and counter-experiment, to be the most powerful and at the same time (the) mildest in action, as the material part of the medicine is lessened with each dynamization 50,000 times and yet incredibly increased in power"

The introduction of the new LM potency was Hahnemann's last great gift to. homeopathy and was the outcome of his 50 years of research. With this *higher dilution ratio* Hahnemann found just what he was searching for to break the impasse in treating the most chronically ill of his patients. The 1/50,000 dilution ratio was to replace the 1/100 ratio as it was very powerful yet gentler than the higher potency centesimals. At last he was satisfied that he had found "the most perfect method" and had fulfilled the highest ideal of cure which is a rapid, gentle and permanent restoration of the health.

As Reverend Everest said "Hahnemann was so entirely satisfied with the gentle and kindly action of these preparations that they would, I think, almost have superseded with him all other preparations." Hahnemann called the new preparations *medicamens au globule* (medicine of the globules, the one pill being noted by the 0) to distinguish them from the centesimal potencies that were called *medicamens a la goutte* (medicines of the drop).

The 50 millesimal scale was introduced by Dr Hahnemann in the 6th edition of *Organon of Medicine* in § 270 and it was named as '50 millesimal' by Dr Pierre Schmidt of Geneva. Potencies prepared under this method are named by Dr Schmidt as, *'fifty millesimal potencies'* as the material part of the medicine is said to be decreased by 50,000 times for each degree of dynamisation.

Hahnemann termed this new method as, *'renewed dynamisation'* (§161). In footnote 1, § 132 of *Organon of Medicine*, he has mentioned it as *'new altered but perfected method" — "New dynamisation method".*

☞ The manuscript of the 6th German edition of the *Organon of Medicine* was completed by Dr Hahnemann in 1842. In a letter to his publisher, Mr. Schaub, in Dusseldörf, Hahnemann wrote, "I have now, after eighteen months of work finished the sixth edition of my *Organon,* the most nearly perfect of all. But, Hahnemann died on 2nd July 1843 and as a result of which it saw the light of the day in 1921 when William Boericke published it. Even after it was published, only

a few (like Dr Pahud of Lausanne) took notice of the great changes advocated by the Master. It was brought to the notice of the profession by Dr Pierre Schmidt, M.D. of Geneva in an article entitled, *The Hidden Treasure of the Last Organon,* published in the British Homoeopathic Journal, July - October 1954. Another article was published by him on this subject in the Journal of the American Institute of Homoeopathy, December - January 1955 - 56. At last, in the April 1980 issue of 'The British Homoeopathic Journal', Dr Charles Pahud of Lozen from France drew the attention of the World Homoeopathic Physicians all over the World to the sixth edition of the *Organon* in his article, *'My Experience About Hahnemann's 50 Millesimal Scale Potency'.* These two learned men can rightfully be credited with opening the door of the hidden treasure of the 6th edition of *Organon of Medicine.* In India and Bangladesh, the potency prepared by this scale is designated as 0/1, 0/2, 0/3, 0/4 and M/1, M/2, M/3, M/4, etc. In the west, it is designated as 1/0, 2/0, 3/0, etc. Master Hahnemann used to write 0/1, 0/2, etc. Some authors have suggested, LM/1, LM/2, LM/3, etc., Where 'L' stands for 50 and 'M' for millesimal. The numerator '0' representing symbolically the poppy-sized globule employed in each dynamisation.

Methods of Preparation

Apparatus and Materials Required

- *Sugar of Milk*: It should be of the purest quality; it is used for the purpose of potentisation.
- *Purified Water:* Of the purest quality.
- *Strong Alcohol:* Of the purest quality.
- *Sugar Globules*: Those of the purest quality are used. They should be free from dust particles which is achieved by passing them through a sieve. Then they are passed through another sieve which will allow only globules of the prescribed size – a hundred of which weigh a grain.
- *Glazed Porcelain Mortar*: The bottom of the mortar is roughened beforehand with the help of fine moist sand using a pestle and spatula.
- *Bottles (Made-up of Neutral Glass)*: After filling the liquid in the bottles for potentisation, 1/3rd should be kept empty.
- *A Small Cylindrical Vessel (Made-up of Glass, Porcelain or Silver)*: A small opening is present at the bottom of the cylindrical vessel in which the globules are put to be medicated. They are moistened with a little potentised medicinal alcohol. The globules are then stirred and poured out on blotting paper, in order to dry them quickly.

Procedure

The method of preparation of medicines according to the new method as described in the 6th edition, has not yet found its way into any of the homoeopathic pharmacopoeias. Hahnemann has explained the mode of preparation in § 270 - 271 and their footnotes (150 to 157) in the sixth edition of *Organon of Medicine.*

PREPARATION OF MOTHER SOLUTION

APHORISM 270, 6"' **EDITION, ORGANON OF MEDICINE**

In order to best obtain this development of power, a small part of the substance to be dynamised, say one grain, is triturated for three hours with three times one hundred grains sugar of milk up to the one-millionth part in powder form.

- One grain of the drug substance (dry or oily; plant or animal matter) is triturated for three hours with 1,00,00,00 grains (106 grams) of sugar of milk i.e. upto the 3x potency according to the method described below:

First Stage:

- One-third of hundred grains (approximately 33 grains) of milk sugar is taken in a glazed porcelain mortar. Add one grain of the powdered drug to it. For 1 minute the medicine and powder are mixed with a spatula and grinded or rubbed for 6 minutes with a pestle; then the mass is scraped from the bottom and sides of the mortar and from the pestle for 3 minutes. This is again followed by trituration for 6 minutes, scraping for 3 minutes and mixing for 1 minute without adding anything new to the mixture.
- The second third of milk sugar is now added and the above mentioned process is repeated for the same period (i.e. 20 minutes).
- The last third of milk sugar is mixed to the above mixture and the 20 minutes process is again repeated.
- The powder thus prepared is put in a vial, which is well corked, protected from direct sunlight and accurately labelled indicating the name of the drug, potency and date of manufacture. Each grain will contain 1/100 of original drug substance.
- By the end of one hour, one third process of preparation of mother tincture is completed.

Second Stage:

- One grain of the above preparation is taken and triturated with hundred grains of sugar of milk in three stages (for a period of 1 hour) as mentioned in the first stage. The potency prepared will be such that each grain will contain 1/10,000 of the original drug substance. The prepared mixture is put in a well stoppered and labelled vial.

Third Stage:

- One grain of the above potency is triturated with hundred grains of sugar of milk as mentioned earlier for 1 hour. Thus we have a 3rd centesimal potency, where 1 grain has 1/1,00,00,00 of the original drug substance.

Fourth Stage:

• One grain of the 3rd potency is dissolved in 500 drops of a mixture of one part of alcohol and four parts of distilled water (viz, 500 drops = 100 drops of alcohol and 400 drops of water). Thus, the dry trituration is converted into the liquid form. This is the mother tincture of 50 millesimal scale. It implies that mother tincture has the drug strength of

$$\frac{1}{500}\times\frac{1}{10^6}=\frac{1}{5\times10^8}\quad\frac{(1)}{(5,00,00,00,00)}$$

Preparation of Potencies

0/1 Potency:

- One drop of the mother tincture is put in a vial. Add 100 drops of pure alcohol to it (the size of the vial should be such that it is 1/3rd empty). Give the vial one hundred strong downward succussions with a hand against the other hand or a hard but elastic body. This is the medicine in the first degree of dynamisation, viz, first potency (0/1) of 50 millesimal scale. The drug strength will be:

$$\frac{1}{5\times10^8}\times\frac{1}{100}=\frac{1}{5}\times\frac{1}{10^{10}}=1\times10x$$

$$\frac{1}{5}\times\frac{5c}{5}\left[\frac{1}{10^{10}}=10x=5c\right]$$

- To convert the liquid potency into globules, a small cylindrical vessel, shaped like a thimble, made of glass, porcelain or steel with a small opening at the bottom is taken, into which poppy-sized globules (100 of them weigh 1 grain) are put to be medicated. They are moistened with a small quantity of the medicine prepared.

- The moistened globules are then spread over a piece of blotting paper so that the excess of medicine is removed. It is found that 500 poppy seed globules get saturated by absorbing one drop of the medicine.
- Then the globules are transferred into a vial which is well-stoppered and accurately labelled. Thus 0/1 potency is prepared.

Further Potencies (Next Higher Potencies):

- Take only one globule of 0/1 potency in a new, clean vial. Dissolve in a drop of water and then add 100 drops of alcohol to it. Give 100 powerful downward succussions.
- With this alcoholic medicinal fluid, globules are again moistened, spread upon blotting paper and dried; finally put into a well-stoppered vial, stored protected from heat and sunlight and accurately labelled. Thus, 0/2 potency is made.
- Every higher potency is thus prepared by taking one globule of the previous potency.
- The process is continued up to thirtieth potency and each potency contains 1/50,000th part of the previous potency.

SCHEMATIC PRESENTATION OF PREPARATION OF 50 MILLESIMAL POTENCIES

First Stage (1 Hour)

1 grain of powdered drug substance +100 grains of sugar of milk

Grinding, scrapping, mixing ▲ 1st trituration

1 hr. (20+20+20)

Second Stage (1 Hour)

1 grain of 1st trituration +100 grains of sugar of milk

Grinding, scrapping, mixing ▲ 2nd trituration

1 hr. (20+20+20)

Third Stage (1 Hour)

1 grain of 2nd trituration +100 grains of sugar of milk

Grinding, scrapping, mixing ▲ 3rd trituration

1 hr. (20+20+20)

Fourth Stage

1 grain of 3rd trituration +100 drops dispensing alcohol + 400 drops of purified water ▲ Mother tincture

0/1 Potency

1 drop mother tincture + 100 drops pure alcohol

100 succussions ▲ 0/1

Further Potencies

One globule of previous potency

dissolved in a drop of water + 100 succussions Next potency.

How to Administer Medicine in 50 Millesimal Potency

- Properly clean a 4-ounce phial with a new cork.
- Fill 3/4th part of it with distilled water or pure drinking water.
- Add 15-20 drops of rectified spirit to it for the purpose of preservation.
- Crush one No. 10 globule of 0/1 or 0/2 or 0/3 (one globule of the selected medicine) with 2-3 grains of milk sugar. Add this to the bottle.
- Mark the phial in 7 doses. The medicinal solution is now ready for dispensing.
- Before ingestion, these 7 doses have to be succussed 8, 10, 12, times depending upon the susceptibility of the patient (8 for a very sensitive patient; 12 for the least sensitive patient).

- After succussion; take one dose of the medicine in a glass of pure water (capacity about 4 ounces) and stir it well with a teaspoon.
- From the above prepared dose, instruct the patient to take only about 1-2 teaspoon of the dose and discard the rest. Administer the remaining doses in the same manner.

In case of any aggravation on taking the medicine in the above described manner, stop further dosage. The aggravation will subside in a short while. After the aggravation subsides, the same remedy is taken after diluting it in a 2nd, 3rd or 4th glass, prepared as described above. This way the aggravation can be controlled.

Dosage

- A single, simple medicine should be administered at a time.
- Each dose should be as small as possible except in the following cases:
  - Recent, erupted itch.
  - Untouched chancre on the labia, sexual organs, mouth, etc.
  - Fig warts.

In these three cases, the prescribed medicine should be given in large doses in high degrees of dynamisation daily.

- The medicine should not be given in a single dose but in many doses. A single (No. 10) globule soaked with medicine, touches only or few nerve fibers. But when it is crushed and mixed with a bottle sugar of milk, and then dissolved in water, it will produce a very powerful medicine.
- Medicine, in the 50 millesimal scale should only be prescribed in the liquid form.

Potency

- According to § 270 in the 6th edition of *Organon,* Dr Hahnemann recommends potencies from 0/1 to 0/30 only. A majority of the patients proceed towards ideal cure within 0/10 and there is no reason to use higher cases may need potencies even higher than 0/30.

Start the treatment from the lowest degree of dynamisation (i.e. 0/1 to 0/3) and gradually proceed to higher potencies.

Note: Some physicians start the treatment with 0/2 and then proceed with 0/4, 0/6, 0/8 and so on or start with 0/1 and proceed with 0/3, 0/5, 0/7 and so on. But this method is wrong as it goes against the direction, as prescribed by Hahnemann. It is also not scientific and has proven to be harmful to many patients.

Time for Second Prescription

Continue the first prescription till the patient experiences continued improvement without experiencing another complaint which had never before appeared in his life. In such cases, first change the potency of the medicine from low to high like from 0/1 to 0/2, or 0/3 to 0/4 and so on. In case new symptoms are observed, another more homoeopathically related medicine should be selected and administered in the same manner. The dose, however may be modified through succussions depending upon the need. The potency of this new medicine is started from the lowest degrees of dynamisation i.e. 0/1.

Repetition of Doses

Dr Hahnemann states in § 248 and § 249 of the 6th edition of *Organon* that:

§ 248

For this purpose, we potentize anew, the medicinal solution [Made in 40, 30, 20, 15 or 8 tablespoonfuls of water with the addition of some alcohol or a piece of charcoal in order to preserve it. If charcoal is used, it is suspended by means of a thread in the vial and is taken out when the vial is succussed. The solution of the medicinal globule (and it is rarely necessary to use more than one globule) of a thoroughly potentized

medicine in a large quantity of water can be obviated by making a solution in only 7-8 tablespoonfuls of water and *after thorough succussion of the vial,* take from it one tablespoonful and put it in a glass of water (containing about 7 to 8 spoonfuls), this is *stirred thoroughly* and then give a dose to the patient. If he is unusually excited and sensitive, a teaspoonful of this solution may be put in a second glass of water, thoroughly stirred and teaspoonful doses or more be given. There are patients of so great sensitiveness that a third or fourth glass, similarly prepared, may be necessary. Each such prepared glass must be made fresh daily. The globule of the high potency is best crushed in a few grains of sugar of milk which the patient can put in the vial and be dissolved in the requisite quantity of water.] (with perhaps 8, 10, 12 succussions) from which we give the patient one or (increasingly) several teaspoonful doses, in long lasting diseases daily or every second day, in acute diseases every two to six hours and in very urgent cases, every hour or oftener. Thus in chronic diseases, every correctly chosen homoeopathic medicine, even those whose action is of long duration, may be repeated daily for months with ever increasing success. If the solution is used up (in seven to fifteen days), it is necessary to add to the next solution of the same medicine if still indicated one or (though rarely) several pellets of a higher potency with which we continue so long as the patient experiences continued improvement without encountering one or another complaint that he never had before in his life. For if this happens, if the balance of the disease appears in a group of *altered* symptoms then *another, one more homoeopathically related medicine must be chosen in place of the last and administered in the same repeated doses,* mindful, however, of modifying the solution of every dose with thorough vigorous succussions, thus changing its degree of potency and increasing it somewhat. On the other hand, should there appear during almost daily repetition of the well indicated homoeopathic remedy, towards the end of the treatment of a chronic disease, *so-called* (§ 161) *homoeopathic aggravations* by which the balance of the morbid symptoms seems to again increase somewhat (the medicinal disease, similar to the original, now alone persistently manifests itself). The doses in that case must then be reduced still further and repeated in longer intervals and possibly stopped several days, in order to see if the convalescence need no further medicinal aid. The apparent symptoms (Schein-Symptoms) caused by the excess of the homoeopathic medicine will soon disappear and leave undisturbed health in its wake. If only a small vial, say, a dram of dilute alcohol is used in the treatment, in which is contained and dissolved through succussion one globule of the medicine which is to be used by olfaction every two, three or four days, this also must be thoroughly succussed eight to ten times before each olfaction.

§ 249

Every medicine prescribed for a case of disease which, in the course of its action, produced new and troublesome symptoms not appertaining to the disease to be cured, is not capable of effecting real improvement [As all experience shows that the dose of the specially suited homoeopathic medicine can scarcely be prepared too small to effect perceptible amelioration in the disease for which it is appropriate (§ § 275-278), we should act injudiciously and hurtfully were we when no improvement, or some, though it be even slight, aggravation ensues, to repeat or even *increase the dose* of the same medicine, as is done in the old system, under the delusion that it was not efficacious on account of its small quantity (too small dose). *Every aggravation by the production of new symptoms*— when nothing untoward has occurred in the mental or physical regimen— *invariably proves unsuitableness on the part of the medicine formerly given in the case of diseases before us, but never indicates that the dose has been too weak.*], and cannot be considered as homoeopathically selected; it must, therefore, either if the aggravation be considerable, be first partially neutralised as soon as possible by an antidote before giving the next remedy chosen more accurately according to similarity of action; or if the troublesome symptoms be not very violent, the next remedy must be given immediately, in order to take the place of the

improperly selected one [The well informed and conscientiously careful physician will never be in a position to require an antidote in his practise if he will begin, as he should, to give the selected medicine in the smallest possible dose. A like minute dose of a better chosen remedy will re-establish order throughout.].

From § 248, it is clear that the repetition of doses in 50 millesimal scale depends upon the nature of the disease, viz.:

- *In long lasting diseases,* like asthma, ulcers, cancer, skin diseases, rheumatism, hypertension, etc., one or several teaspoon doses may be given daily or every second day.
- *In acute diseases* like typhoid, malaria, diarrhoea, dysentery, etc., every 2 to 6 hours.
- *In very urgent cases* like in tetanus, cholera, chickenpox, etc., repeat every hour or oftener.

In chronic cases, the indicated remedy can be given (repeated) daily for months with good results even if the remedy possesses an action of long duration.

For second prescription, Dr Hahnemann writes:

- If the patient experiences continuous improvement, continue with the previous remedy, may be in a higher potency.
- If some altered symptoms appear, chose another homoeopathic remedy and administer it in the same repeated doses.
- If a homoeopathic aggravation occurs, the dose should be reduced and repeated at longer intervals. One can even stop giving the medicine for several days to see if convalescence need no further medicinal aid.

In § 249, Master Hahnemann discusses the management of cases where, the selected medicine (for a disease), in the course of its action produces new, troublesome symptoms which do not pertain to the disease to be cured.

According to Dr Hahnemann such a medicine is not homoeopathically well selected and their management is as follows:

- If the *aggravation* produced is *very violent,* treat it by first giving an antidote followed by an accurately chosen homoeopathic remedy.
- If the *aggravation is mild* the second prescription can be made immediately to replace the wrong prescription.

Time for Administration of Remedy

- In fevers, the most appropriate time for administering the remedy is just after the termination of the fever paroxysm.
- Several acute and chronic diseases have a definite period of aggravation during their course. Do not give the medicine at that time. For example, patients suffering from syphilis have an aggravation at night. Hence, avoid administering the medicine at night to these patients.
- Several drugs have a specific period for medicinal aggravation. This is not the right time to administer these drug.

  For example,

Arsenicum album	< 12 p.m. - 2 a.m.
	< 12 a.m. - 2 p.m.
Kaliums	< 3 a.m. - 5 a.m.
Lycopodium clavatum	< 4 p.m. - 8 p.m.
Natrum muriaticum	< 10 a.m. - 11 a.m.
Sulphur	< 10 a.m. - 2 a.m.

- While prescribing for menstrual disorders, the best time is in the post-menstrual period.

Routes for Administration

- Oral (through the mouth).

- Olfaction (inhale through nose and mouth).
- By rubbing.
- Through mother's milk or milk of the wet nurse.

Conditions for Administration

- Select a perfectly homoeopathic medicine.
- Use a highly potentised medicine.
- Dissolve the medicine in water.
- Give the smallest possible dose.
- The subsequent dose should be higher than the previous one.
- It should be administered after a fixed time period.

Advantages of Using 50 Millesimal Potency

- Far more dynamic than other potencies.
- It's action is much more gentle, permanent and rapid. Complying with Dr Hahnemann's high and only mission of cure.
- 50 millesimal produces the minimum aggravation. Hence it can be safely used in even the most deplorable cases without any fear.
- Medicinal aggravation if any, is nominal and controllable.
- It has the highest development of latent power which is developed by giving 100 succussions. This produces:
  - A rapid, long-lasting penetration.
  - A gentle impact with minimal (if any) medicinal aggravation.
  - Permanent restoration of health.
- It has achieved quicker cures of chronic diseases. It has enabled the period of treatment to be diminished to one half or one quarter or even less time. This scale of potentisation can boldly face any challenge with the allopathic medicines in regard to quick recovery.
- It can be repeated frequently (every hour or oftener) as and when necessary. Even drugs having a long continued action Sulphur, Thuja, Lycopodium, Calcarea carbonicum, can be administered frequently and for long durations (months) in this potency, safely.
- By the use of this potency, the doctor can judge the appropriateness of the medicine within 2-4 days of chronic diseases and 2-4 hours or even earlier in acute diseases.
- When used by olfaction, it cures both acute and chronic cases quickly without any severe medicinal aggravation.
- In 50 millesimal potency, the same constitutional medicine can be used for both palliative and curative purposes. Here no separate medicine is required when palliation is needed.
- Very effective and useful in mental diseases where there is an apprehension of aggravation on using the centesimal scale.
- 50 millesimal has proved useful in one-sided diseases or in other cases which seem incurable.
- Repeated doses of 50 millesimal work miraculously in cases of suppression which occurred long ago, putting the patient back on the process of cure.
- It has proven to be very efficacious and helpful when administered in the primary stage of psora, syphilis and sycosis.
- It is infallible for cases where only palliation is to be removed. Here, palliation is possible without the least chance of an aggravation.
- This system frees the patient and the physician from the tyranny of centesimal scale. Under this scale medicines can

be used off and on, when required. If one prescription is formed to be wrong, the physician can start another carefully selected remedy immediately without first antidoting the action of the first.

Disadvantages of using 50 Millesimal potency

- The medicine has to administered in the liquid form only.
- A standard quantity of phial and cork should be used to preserve the medicine well.
- In case of an aggravation while using this scale, bring it to the notice of the physician immediately. Further dilution and reduction in the frequency of repetition may be required.
- The mode of preparation and use of this medicine may reduce the enthusiasm to use it amongst physicians and patients.

■ ■ ■

Study of Potentisation

DYNAMIC ACTION

Dynamic action or power is the action of one substance on another substance without being able to recognise a sensible connection between cause and effect.

These effects were called dynamic and virtual by Master Hahnemann as they resulted from absolute, specific, pure energy, and action of one substance upon other substance. The dynamic energy of the medicines influences the principle of life to restore the sick to health.

Master has stated in Aphorism 269, 6"' edition, Organon of Medicine as, "*The homoeopathic system of medicine develops for its special use, to a hitherto unheard of degree, the inner medicinal powers of the crude substances by means of a process peculiar to it and which has hitherto never been tried, whereby only they all become immeasurably and penetratingly efficacious and remedial, even those that in the crude state given no evidence of the slightest medicinal power on the human body. This remarkable change in the qualities of natural bodies develops the latent, hitherto unperceived, as if slumbering hidden, dynamic powers that influence the life principle, change the well-being of animal life. This is effected by mechanical action upon their smallest particles by means of rubbing and shaking and through the addition of an indifferent substance, dry or fluid. This process is called dynamizing, potentizing (development of medicinal power) and the products are dynamizations or potencies in different degrees."*

Potentisation or dynamisation process was introduced into the science of therapeutics by Dr Samuel Hahnemann. Potentisation is the process of dilution or attenuation or friction that liberates the pharmacodynamic property of a drug. The medicinal energy liberated lies invisible in the moistened globule or in its solution which acts dynamically by coming in contact with the living animal fibre upon the whole organism, and its energy acts more strongly and freely through dynamisation.

In 1813, Hahnemann published *'**The Spirit of Homoeopathy',*** wherein he formulated a clear concept of an organism, health and disease which became the seed of dynamisation theory as, "Disease, according to him was only a dynamic derangement of the vital character of the organism. Drugs, besides their physico-chemical properties, possess another property or quality by virtue of which they alter the qualitative state of the organism through its altered sensations and functions. Thus quality of a drug does not depend entirely on their physical and chemical properties. On the other hand, the more the materiality of a drug is reduced, by processes of dilution or trituration, the greater the specific therapeutic quality lying hitherto dormant in the drug seemed to be unveiled or liberated." Thus, the effects of the energies liberated must be recorded, and one can comprehend their innermost meaning by deductive logic only.

Homoeopathic dynamisation is defined as a process by which the medicinal properties, which are latent in natural substances while in their

crude state, become aroused, and then become enabled to act in an almost spiritual manner on our life; i.e., on our sensible and irritable fibre. This development of the properties of crude natural substances (dynamisation) takes place, in the case of dry drug substances, by means of trituration in a mortar, but in the case of fluid substances, by means of shaking or succussion (Preface to 5th volume of *The Chronic Diseases*).

Stuart Close in *'The Genius of Homoeopathy'* has defined Homoeopathic Potentisation as "a mathematico-mechanical process for the reduction, according to scale, of crude, inert or poisonous medical substances to a state of physical solubility, physiological assimilability and therapeutic activity and harmlessness, for use as homoeopathic healing remedies. In other words, it is a physical process by which the latent curative properties of drugs are brought into activity. Drug dynamisation is one of the most controversial doctrines of homoeopathy as Dr Hahnemann's view regarding dynamisation also constantly underwent alterations.

EVOLUTION OF THE THEORY OF DYNAMISATION

Discoveries that led to the principle of dynamisation:

- Substances such as salt or lycopodium, not previously identified as medicines became therapeutically active on dynamisation.
- Reduced dosage of previously used medicines improved the therapeutic effect. These microdoses were referred as 'power developments' or 'potencies' by Master Hahnemann.

Pre-Homoeopathic Medical Career

- Hahnemann's prescriptions corresponded in composition, weight and quantities with those of his contemporaries before he discovered Law of Similars.
- *In "Directions for the Cure of Old Sores and Ulcers" (1784),* Hahnemann has recommended Antimony in doses of 5-50 grains (0.25 - 2.5 g), and Jalap root in doses of 20-70 grains (1 - 3.5 g).
- Prescriptions in 1787 revealed use of Conium at 4 grains to several quarter ounces daily; Belladonna at 12-15 grains every other day; Aconite at 1/2-several grains several times per day, etc.
- In *1790,* he prescribed Cinchona according to the allopathic standards of the (lay, at 1-1/2 to 2-1/2 ounces (45-75 grams) per 24 hours. He even recommended stronger medicines in larger doses as mentioned in his notes on *Cullen's Materia Medica* and *Munro's Pharmacology*.
- His failures made him abandon his medical practise for many years.
- In *1790,* while translating *Cullen's Materia Medica,* Hahnemann wrote, 'Surely toxicity is nothing but the violent manifestation of an extremely powerful agent applied in too high a dose and in the wrong place. Any potential benefit may well have been lost merely due to incautious use.'

Homoeopathic Career

- In *1796,* he made known the principles of homoeopathy in Hufeland's journal with the publication of *"Essay on a New Principle For Ascertaining The Curative Powers of Drugs and some Examination of the previous Principles".* In this essay, he made reference to the use of "small doses", but does not clarify what he meant by "small". This year was marked as the birth of "Homoeopathy". From then onwards, he selected his remedies from the standpoint of similarity, still administering fairly large doses. But he observed that cure, in many cases, was associated with aggravation of symptoms causing more sufferings for the patient. *The aggravation or the increase of*

disease symptoms following the administration of the homoeopathic remedy, induced him gradually to decrease the dose. But this diminution was not so swift and it was only by experiments and bedside experiences that the necessity was felt by him.

- In 1798, first hints on dilution of drugs were found his *"Apothecaries Lexicon"* shows the first hints on dilution of drugs in context to Sabina and Hyoscyamus 1/16 - 1/30 grains of the concentrated solution and Stramonium 1/100 - 1/1000 of the concentrated juice.
- *In 1798,* Hahnemann published another article in Hufeland's Journal **"***Some Kinds of Continued and Remittent Fevers", where he used Opium in 1/5-1/2 grain doses; Camphor 30-40 grains/day; Ledum 6-7 grains. In the same year, in another article "Some Periodical and Hebdomadal diseases*, it is being mentioned in his notes about using Ignatia at 8 grains and China at 1/2-1 grain doses.
- Serial dilution in the preparation of remedies appears to have been introduced in 1799.
- Between 1799 and 1801, he advocated the use of small doses which he called 'infinitesimal doses'. In his treatise, *"Treatise of Medicine and Collection of Selected Prescription"* several remarks concerning very small doses are mentioned.
- The first detailed statements about dilution were being mentioned in his publication *"Cure and Prevention of Scarlet Fever" (1801,* describing his treatment of an epidemic in 1799). A dose of Belladonna used early-on of 1/432000th part of a grain was described as "too large a dose"; in preparing a dose he made a dilution from the tincture in two dilutional steps, of 1/300 and 1/200, resulting in a solution containing 1/24 millionth grain of dry Belladonna juice per drop, and used 2 or more drops per dose, depending on age (up to 40 drops for an adult).
- In 1802, he used Veratrum 1/2000 grains, Mezereum 1/400,000 grains, Stramonium 1/300,000 grains, etc.
- Through 1803, Dr Hahnemann's experience was growing and he was experimenting higher and higher without making any final decision about the dose and potency of drugs.
- In *'Medicine of Experience'* published in 1805, he talks about the dynamic action of drugs and the infinitesimal dose required to cure even the severest disease. However, he could not explain how the power, of the drug increased by an increase in the triturations and succussions.
- The diaries of *1807, 1808* and *1809* provide little information end give no details concerning the quantity by weight or the degree of dilution, in which die remedies were to be administered.
- The 1st edition of the *Organon of Medicine* was published in 1810 but the theory of dynamisation was not yet rooted. However, it was clear that Hahnemann's theory was developing as follows:
  - He wanted to give small doses as it prevented aggravations.
  - To reduce the dose, he mixed the drug substance with a non-medicinal vehicle and subjected it to vigorous shaking which increased the curative power of the drug.
- In 1811, the first part of *"Materia Medica Pura"* appeared, without any mention of the size of the dose. In *1813,* Hahnemann published the dissertation *"Spirit of the New Theory of Healing"* where he wrote, 'The spiritual power of the medicine attains its purpose not by quantity but by quality'.
- Recorded evidence is present that Hahnemann, between 1812 and 1815 used

Arnica in the 18th and Nux vomica in the 9th centesimal potency.

- In *1813,* Hahnemann formulated a clear concept of an organism, health and disease in his publication, *"Spirit of the Homoeopathic Doctrine of Medicine"*. In his *1814* article *"Treatment of the Typhus or Hospital Fever at Present Prevailing",* he has mentioned Bryonia and Rhus tox in dilutions prepared by serially diluting 1 drop to 6 drams twelve times, shaken for 3 minutes at each step, and used a dose of 1 drop of the 12th dilution.
- In 1819, in the *second edition* of *Organon, from* aphorism 300 to aphorism 308), Hahnemann has suggested that dose determination required clear experiments, careful observation and accurate experience. In his third publication, *"On Uncharitableness to suicides,"* in the same year*, he has* recommended gold in its sixth potency.
- In *1821,* in the *sixth and last volume* of *Materia Medica Pura,* Hahnemann referred constantly to treating with "the smallest part of a drop". While in *1822, 2nd edition* of *volume 1* of the *Materia Medica Pura,* he has recommended doses ranging from the crude tincture for Cannabis, to the 9th to 30th centesimal dilutions or triturations, with the dose consistently specified as the "smallest part of a drop".
- Between 1816 - 1827, Hahnemann gradually increased the dilution of medicines. At the same time, Hahnemann made a lot of followers and also faced a lot of criticism from allopaths. In the volumes of *Materia Medica Pura,* from *1816 to 1819* a lot of variation in dose and dilution is being mentioned. In *1816,* doses ranged from 1 drop of the original preparation for Causticum, to the 30th centesimal dilution for Arsenicum, to the 1/ 100th, 1/1000th, or 1/50000th part of a grain for Ferrum.
- In 1825, he wrote in a journal "How can small doses of such very attenuated medicines as homoeopathy employs have any 'effect' on the sick?" He writes here, "In the preparation of homoeopathic attenuations a small portion of medicine is not merely added to an enormous quantity of non-medicinal fluid, or only slightly mingled with it but by the prolonged succussions and trituration, there ensues not only the most intimate mixture, but at the same time and this is the most important circumstance, there ensues such a great and hither to unknown and undreamt of change, by the development and liberation of the dynamic powers of the medicinal substance so treated, so as to excite astonishment."
- In *1825 only,* Hahnemann's "infinitesimal" dilutions were attacked in an article, which he refuted in his article *"Information for the Truth Seeker",* stating 'For hundreds of years nothing was known of the power of many crude medicinal substances. These, if made into a solution, can, by repeated shakings or by long-continued trituration with non-medicinal powder, be worked up to very intensive medicines with marvellous effects. By trituration (shaking) the latent medicinal power is wonderfully liberated and vitalised, as if, once freed from the fetters of matter, it could act upon the human organism more insistently and fully. In reality dilution is potentizing, not merely a material splitting up and lessening, in which every part must be smaller than the whole, but a spiritualising of the inner medicinal powers by removing the covering of nature's forces, and the palpable substance which can he weighed, no longer enters into consideration'.
- In 1828-1833, *'Chronic Diseases'* was published in which he has written about starting treatment with small doses (2nd or 3rd trituration), but experience taught him to give preference to higher dilutions. During

this time, Dr Hahnemann came upon the strange idea of setting up a standard dose for all curative homoeopathic remedies. This standard was 30c. The instructions are found about the potencies of various remedies such as Antimonium crudum 6, Ammonium carb 18, Baryta carb 18, Lycopodium 18-30, etc. Some of Hahnemann's followers such as Dr Gross in Juterbogk; Dr Schreter in Lemberg; General Korsakoff in Russia; and later, Jenichen in Wismar, went on to develop higher potencies by serial dilution and trituration or succussion. Korsakoff potentised to the 1,500th centesimal, Jenichen to the 2,500th, 8,000th, and 16,000th. In 1829, he wrote to Schreier and Korsakoff, urging them to adopt a limit at 30C as the "standard" potency. In *1832,* in preface to *Boenninghausen's List of Symptoms of the Antipsoric Medicines,* and in the *5th edition* of the *Organon* (in the footnote to §288) in 1833, Hahnemann has mentioned about experiments with olfaction of remedies, having the patient smell a moistened pellet as a dose. Even in the year 1837, his confidence in the inhalation of remedies was strong as is evident from the preface to the *third part* of *Chronic Diseases.*

- In 1833, he published the 5th edition of his *Organon* where Hahnemann's final discussion in favour of high potency rested on his conception of dynamisation of drugs after dilution and succussion was put forth (Aphorism 269 to Aphorism 271). In the *Organon 5th edition,* § 286-287 he describes an increase in the medicinal action of a dose when it is fully dispersed in medicinal solution.
- Trituration for the first 3 centesimal dilutions of insoluble medicinal substances, was being mentioned in *Part 2* of the *1st edition* of *Chronic Diseases (1835).*
- In 1839, the 2nd edition of *'The Chronic Diseases'* was published where Hahnemann confirmed his dynamisation of drugs by saying, "Homoeopathic dynamisation of drugs are real awakenings of the medicinal properties that lie dormant in natural bodies during their crude state, which then become capable of acting in almost a spiritual manner upon our life-that is to say, on our persistent (sensitive) and excitable fibres. In the preface to *volume* 5 of *Chronic Diseases,* published in *1839,* he has made reference to using "10, 20, 50 and more" succussions in the preparation of centesimals.
- The LM (Q, fifty-millesimal) potency scale, which Hahnemann referred to as "medicaments au globule" as distinct from the centesimal "medicaments a la goutte", was developed in *1838,* 5 years before his death, with the intention of preparing remedies even better adapted for use in split dose in medicinal solution. These were prepared with even greater dilution at each step (1/50,000, but using medicated pellets for the dilutions), and with far greater succussion at each dilutional step (100 succussions). Hahnemann shared this method during its experimental period only with Boenninghausen. He first described it in the *6th edition* of the *Organon* (§270), which was prepared for the publisher in the year prior to his death *(1842),* but first saw light only in *1921* when William Boericke purchased the manuscript from the Boenninghausen family.
- In the last period of his life, from 1835 to his death in 1843, he never ceased to make experiments in dosage, potentising by succussions and repetition of dose.
- Hahnemann's remedy chests at the time of his death *(1843)* contained 888 vials of centesimal remedies, in the 6th, 18th, 24th and 30th centesimal potencies; a few vials of the 200th centesimal potency; and 1716 vials of LM potencies, most stocked in LM 1 - LM 10 range, with a few of the major polychrests stocked up to LM 30 (designated as 0/1, etc.).

Note: A letter from Melanie to Dr Breyfogle of Louisville

in 1876, shortly before her death, read: "Your enquiry as to whether Hahnemann altered his views about potencies in the last period of his life and whether he made us only of high potencies, I can answer in this way; Hahnemann used all degrees of dilution, low as well as high, as the individual case required. I saw him give the third trituration, but I also know that he used the 200th or even the 1,000th potency whenever he considered it necessary.

HISTORY OF CONCEPT OF TRITURATION AND SUCCUSSION

- In *1814,* an essay entitled, *A method of treating the currently epidemic typhus,* mentioned: shaken vigorously for 3 minutes.
- *Volume 2* of *Materia Medica Pura (1816)* has dilution on the centesimal scale (1:100) as far as the 30th potency under Arsenicum. As for the method of agitation, he also mentioned: well shaken or accurately shaken,
- In the *4th volume* of *Materia Medica Pura,* in *1818,* Hahnemann used gold only in solution as explained in Aurum, the first metal to be triturated.
- In *volume 6* of *Materia Medica Pura (1821)* Hahnemann mentioned for the first time, in the Preface: bring down ten times. using the full strength of the arm.
- In the *2nd edition* of *volume 3* of *Chronic Diseases (1837)* he changed his method again, going back to 10 succussion strokes. He wrote, *'When I used to administer medicine undivided, each taken with a little water at one dose, I found that potentising in phials with ten succussions often acted too strongly. But as for several years I have been able to give each dose in a solution which will not deteriorate ...now no potency in a vial is too strong if prepared each time with ten succussions.'*
- Two years later, he stated about 10, 20, 40, 50 or more succussions.
- In the Preface to the *2nd volume* of *Chronic Diseases,* Hahnemann mentioned that metals triturated for a total of 3 hours. exactly 1 hour per stage. were soluble in water. All dry material - plant, minerals, metals were triturated upto 3C and then converted into a liquid and potentised.
- After *1818,* Hahnemann no longer gave the drops as they were, instead patients were given the smallest part of a drop. To divide a drop and obtain its smallest part, he used pilules made from sugar that were 100-300 to a grain.
- In the *3rd edition* of *Organon (1824),* he said: "*... in so far as one drop of spirits of wine adequately wets about a hundred such pilules."*
- In *Chronic Diseases* (*1828),* he has mentioned about using pilules weighing 200 to *a* grain, and had acquired sufficient skill to wet 300 of these with a single drop.

PROCESS OF POTENTISATION OR DYNAMISATION

Two process are employed in potentisation depending upon the solubility of the drug substance.

A. Succussion.

B. Trituration.

A. SUCCUSSION

It is a mechanical process of potentisation of drug substances soluble in liquid vehicles by employing powerful downward strokes.

Indication

For medicinal substances that are soluble in alcohol or distilled water. Substances belonging

to Classes I-IV (tinctures) and Classes V and VI (solutions) of the Old method of preparation of homoeopathic medicines are potentized by the process of succussion.

Vehicle for liquid potencies

Succussion may be in water or alcohol or a mixture of both. However, the most commonly used vehicle is alcohol (as in Class I, II, III, IV and VI of Hahnemann's method). For drug substances insoluble in alcohol or only soluble in water (Class V), purified water is the preferred vehicle. In such drugs too, after certain degree of attenuation, it becomes soluble in alcohol and further attenuations are made in alcohol.

Hence, by this process, dynamisation of liquid drugs is done.

For this purpose, three scales are in use:

i. Decimal.
ii. Centesimal.
iii. 50 millesimal.

Method of Succussion

Hahnemann mentioned to make these attenuations by hands process only. Practically, it is too hard to pursue the Hahnemannian hand process in cases of higher or highest potencies. Of late, these higher potencies or dilutions are prepared by automatic machines. The process of succussion is entirely different from simple mixing and agitating. The process of succussion is a new invention of Hahnemann at the renaissance period of the 18th century. At a dilution of $1/10^{24}$ corresponding to potencies of 12c or 24x, Avogadro's limit has been reached, beyond which there are theoretically no molecules of original substance left in the preparation. However, it is clinically and experimentally demonstrable that such potencies are still pharmacologically active and preserve the therapeutic potentials of the original substance. The method of potentisation causes the pharmaceutical message of the original drug to be impressed on the molecules of the diluent. They may involve a polymerisation or an electromagnetic effect. For succession, it has now been accepted that *ten strokes* of equal velocity with measured strength are necessary. The A.H.P. and G.H.P. also advocate ten strokes.

Jenichen had advocated that the degree of respective strength developed through potentising, and was directly proportional to the number of strokes applied, and that every ten strokes given, would increase the dynamic strength of the medicines by one degree. But Dr Finke of America did not endorse the proposition of the stroke whatsoever, instead he devised his own method of dynamisation. Finke used to take one hundred drops of the drug substance in a glass jug and allow a stream of distilled water to flow through the same. For every dram of water entering in and out of the vessel, Finke would count it as one potency; thus for 100 drams of water entering and coming out of the vessel would raise the potency of the containing drug substance to 100. Finke had only paid importance on the water with its exerting force on a medicinal substance in raising the potencies, and not on any strokes applied.

Dr Skinner in preparing liquid potencies had also followed the above method to some degree. He designated such a process as 'Fluxion method'.

Dr Korsakoff of Russia devised another method of dynamisation by simply keeping a medicated pellet in a new, neutral, well cleansed and properly labelled phial containing non-medicated pure pellets of milk sugar. Korsakoff claimed that the dynamical power of these medicated pelletes could influence and induce the non-medicated pellets to be charged with the medicinal property. 1 part by volume of drug substance or previous potency is mixed with 9 or 99 parts (depending on the scale employed) by volume of liquid vehicle

in a phial filling 2/3rd of it. The upper 1/3rd of phial is kept empty to generate an effective friction when the contained liquid strikes the walls of the phial. It is then corked tightly and shaken well to mix and blend together. The phial is then grasped in right hand with thumb held firmly over the cork, the bottom of phial is placed on pulp of little finger of right hand, and the remaining fingers tightly grasp the phial. 10 downward strokes of uniform strength are given to the phial held in a hand against a hard but elastic body or against the other hand. To maintain uniformity of strength, some authors have suggested that the phial must be raised to the level of the shoulder before every stroke. Each stroke should end in a jerk.

B. TRITURATION

It is a mechanical process of potentisation of minerals, inorganic substances, etc. which are insoluble in liquid vehicles, by grinding them with suitable solid vehicles.

Indications

1. Class VII

Dry medicinal substances insoluble in purified water and alcohol like Arsenicum album, Alumina, Graphites, Corallium, etc. The trituration ratio (for centesimal scale) is 1:99 (drug substance: sugar of milk). The 99 parts of milk sugar is divided into 3 equal parts of 33 parts each. Trituration takes place by the 3 usual stages of 20 minutes each.

2. Class VIII

These are liquid insoluble medicinal substances like Petroleum, Naja, Crotalus, Lachesis, etc. The trituration ratio for centesimal scale is 1:99 (drug: milk sugar). 99 parts of milk sugar should not be divided into 3 equal parts as the quantity of milk sugar in very less. Hence, the entire sugar of milk should be taken at a time in the mortar and the drug substance is poured over it so that the oily (dry substance) doesn't stick to the surface of the mortar.

3. Class IX

This includes fresh vegetable and animal substances like Psorinum, Medorrhinum, Blatta orientalis, Agaricus, etc. The ratio of drug substance to milk sugar is 2:99 (as per centesimal scale) as there is always some loss of the drug substance by evaporation during trituration.

Note: Hard substances are triturated more easily than soft substances.

Vehicle for trituration

Sugar of milk is the vehicle commonly used as the preservative properties of sugar of milk are superior to cane sugar and other substances. Its crystalline particles are very hard and gritty, hence are of great use in grinding down the particles of drugs submitted to the process of trituration, into a fine sub-division, keeping the minutest particles of triturated metals untarnished by oxidation, for an indefinite time. Even readily deflorescent substances like potassium iodide and others that are easily decomposed, are preserved by trituration with equal parts of milk sugar, even if kept in paper capsules, for a much longer time than without the milk sugar.

Drug substances included in Class VII, VIII and IX are triturated to certain attenuations to make them soluble in alcohol. Hahnemann originally described this process of preparing medicine in his *The Chronic Diseases,* Volume I, page 183.

Two scales are in use for trituration:

i. Decimal.
ii. Centesimal.

Conditions Required for Trituration

1. The room must be clean, of moderate temperature and dust-proof, for carrying out the process of trituration.
2. Utensils should be perfectly clean and odourless.

3. Surfaces of mortar and pestle must be unglazed or made rough by rubbing them with moist clean white sand.
4. The mortar and pestle after being properly cleaned in the usual way, should be washed with alcohol and should be dried thoroughly.
5. After each trituration has been completed, all the utensils must be properly cleaned and dried for the next one.
6. In triturating drugs like Graphites, Mercury, Plumbum, etc. the utensils should be cleaned sufficiently, thoroughly and repeatedly.
7. In triturating Plumbum, the pestle should be rubbed very softly.
8. In triturating Ferrum metallicum, the mortar must be kept often warm for removing moisture, while triturating.
9. Argentum nitricum and hygroscopic salts cannot be kept well in trituration.
10. Dr Burt advises the use of a small amount of alcohol for moistening the milk sugar during trituration, as it will save the troubles of scrapping and stirring.

Note:

i. Triturations are not made arbitrarily, but there is some definite process in trituration. Firmly gripping the pestle with the hand having the thumb on the top, the pestle must be fully pressed down and moved anticlockwise or clockwise if the person be a left-handed. The motion should be circular going away from the centre spirally and moving back to the centre. By this process practically all the particles get a uniform rubbing.

ii. To increase the productivity and cost of production *mechanical devices* are being employed nowadays. In this context, the H.P.I. directs that it is not feasible to give strict rules for such mechanical appliances in all their interdependent details.

Decimal Scale of Trituration

Principle

For making the 1st potency, triturate one part by weight of the crude drug with 9 parts by weight of milk sugar for one hour. All the following potencies are made by taking one part of the preceding potency with 9 parts of milk sugar.

Requirements

1. One clean unglazed mortar.
2. One clean unglazed pestle.
3. One clean horn spatula.
4. Necessary amount of crude drug substance.
5. Necessary amount of milk sugar.
6. A stop-clock or a watch.
7. An empty clean phial of required size.
8. A freshly marked new velvet cork.
9. Label paper, a scissor and paste.

Process:

The entire process of trituration is done in 3 main stages; and the total quantity of 9 parts milk sugar is divided in 3 equal parts, i.e. 3 parts of milk sugar is used separately in the following 3 stages:

First Stage: 1 part of crude drug and 3 parts of milk sugar is taken in a requisite mortar and properly mixed with a spatula. Then the mixture is steadily and thoroughly rubbed or triturated for 6 minutes in a uniform circular movement, either clockwise or anti-clockwise. Next, cleanly scrape the particles adhering to the inner walls of the mortar and the pestle for 3 minutes. Next, mix or stir the whole triturated mass for 1 minute. Thus, the total time required for rubbing or triturating followed by scrapping and then mixing followed by stirring would be 6 + 3 + 1 = 10 minutes. The same process for triturating for 6 minutes, scraping for 3 minutes and stirring for 1 minute is to be repeated again. Thus the first stage of trituration will be completed in (10+10) = 20 minutes.

Second Stage: In this stage, 3 parts by weight of milk sugar, is added to the above triturated mixture.

The same processes as are carried in the first

stage, are repeated in this case. So, in another 20 minutes the second stage of trituration will be completed.

Third Stage: Similarly, the third stage is also completed in 20 minutes, as in the 2nd stage. Thus, in (20+20+20) = 60 minutes time, the whole process of a trituration will be completed. Next, the triturated material should be stored in a clean phial, with the name and potency of the medicine pasted on it, e.g. Natrum muriaticum 1x or Silicea 1x, etc.

For making 2x trituration, 1 part by weight of the 1x trituration would be triturated with 9 parts by weight of milk sugar as above, time taken altogether 60 minutes. All the following potencies are prepared by taking one part of the preceding potency with 9 parts of milk sugar.

Centesimal Scale of Trituration

The same method, as for potencies under decimal scale is carried on, is also applicable for triturations under this centesimal scale, excepting that one part by weight of the drug substance will be triturated with 99 parts by weight of milk sugar, for the period of one hour, including 3 stages, each consuming 20 minutes as in the decimal scales, and dividing the 99 parts milk sugar in three equal 33 parts. Thus, it results in 1st potency of the centesimal scale. For the 2nd potency, triturate 1 part of the 1st potency with 99 parts of milk sugar in the usual way, and so on for the following potencies.

This time-honoured but tedious method of preparation has been replaced by machines in all modern homoeopathic pharmaceutical laboratories.

Trituration according to H.P.I.

Take one part by weight of the crude drug and one part by weight of sugar of milk in coarse powder. Mix the two for a moment and then rub the mixture thoroughly for six minutes. After six minutes, scrape the pestle and mortar with a spatula, and stir the mixture for four minutes. Again rub the mixture with the pestle for six minutes and stir for four minutes. Now add 3 parts by weight sugar of milk and repeat the processes of rubbing, scraping and stirring. Then add 5 parts by weight sugar of milk and repeat the processes of rubbing, scraping and stirring. At the end of this process we get 1x potency of medicine.

Schematic Representation of Trituration

Total time: 60 minutes.

Trituration		
1st stage	2nd stage	3rd stage
(20 minutes)	(20 minutes)	(20 minutes)
10 minutes 10 minutes	10 minutes 10 minutes	10 minutes 10 minutes
Rubbing: 6 minute	Rubbing: 6 minute	Rubbing: 6 minute
+	+	+
Scraping: 3 minute	Scraping: 3 minute	Scraping: 3 minute
+	+	+
Mixing: 1 minute	Mixing: 1 minute	Mixing: 1 minute

Factors affecting size reduction

1. Hardness (harder the material, more difficult it is to reduce in size).
2. Stickiness (causes considerable difficulty in size reduction due to adhesion to the grinding surface whereas slipperiness, the reverse of this property, can also give rise to size reduction difficulties, since the material acts as a lubricant and lowers the efficiency of the grinding surfaces.
3. Toughness (a soil but tough material may pose more problems than a hard but brittle substance).
4. Abrasiveness (in case of hard materials of mineral origin, limits the type of machinery that can be used.

Powder Mixing

The aim of mixing is to produce a bulk of mixture to subdivide it into individual parts. One must note that each part should contain the correct proportions. Ideally, perfect mixing could be said to have occurred when each particle of one material was lying as nearly adjacent as possible to a particle of another material.

Evaluation of Mixing in Trituration

Assessment of the degree of mixing and checking of the final product involves sampling and analysis. An effective mixing ensures uniform distribution of medicine with vehicle so that each potency should correspond to its drug strength.

Conversion of Trituration into Liquid Potencies (H.P.I.)

Drug substances that are insoluble in water and alcohol in their crude state become soluble after certain degree of attenuation. Dissolve one part by weight of the 6x trituration in fifty parts by volume of purified

water, to which fifty parts by volume of dispensing alcohol is added. Give ten succussions to this liquid mixture. 7x liquid potency from 6x trituration is not possible. The first potency prepared from 6x trituration is 8x (4c). This is so because the ratio of trituration to water-alcohol solution is 1:100.

Subsequent potencies may be prepared either in the decimal or centesimal scale in the usual manner but in preparing the 9x potency from 8x use dilute alcohol; higher potencies are made in dispensing alcohol.

It must be noticed that in centesimal scale preparation third trituration of drug is converted into fourth liquid potency, that is, 3c trituration is converted to 4c liquid potency.

Merits of Trituration

1. It arouses the latent medicinal properties of drugs which remain dormant in their crude states.
2. It increases the therapeutic potentialities and greater curative values than their crude form. A drug in potentised form possesses greater healing power than in its crude form.
3. It has the capacity to reduce and to breakdown the drug's particles to the finest possible particles.
4. The drugs insoluble in vehicles like alcohol or water, become soluble by the process of trituration (after 6th decimal or 3rd centesimal trituration).
5. Certain drugs are insoluble in the liquid vehicles, so for their dynamisation purpose, there is no alternative method but to triturate only.

   For example,

i. Drug substances, e.g. Carbo veg., Corallium rubrum, etc.

ii. Animal products, poisons or secretions and Nosodes, like Carbo animalis, Castor equorum, Crotalus cascavella or horridus, Lachesis, Vipera, Bufo, Anthracinum, Hydrophobinum, Variolinum, etc.

iii. Certain oils etc., e.g. Petroleum.

iv. Certain minerals, compounds and metals, e.g. Antimonium crudum, Argentum nitricum, Calcarea carb., Ferrum met., Graphites, Kalium carb., Zincum met., etc. (the general rule for these substances is mentioned in Hahnemann's *Materia Medica Pura,* under Arsenicum).

v. Certain fresh vegetables and animal drugs, like Anacardium, Agaricus, Blatta orientalis whose lower triturations cannot be stored. The principle of trituration, etc. is mentioned in Hahnemann's *Chronic Diseases,* under Agaricus and Blatta orientalis.

Note: Regarding trituration, in aphorium 271 of *Organon of Medicine*, Hahnemann has clearly said, "As pure or oxidised and sulphuretted metals and other minerals, petroleum, phosphorus, as also parts and juices of plants that can only be obtained in the dry state, animal substances, neutral salts, etc., all these are first to be potentised by trituration...".

6. By trituration, the surface area, surface tension of a drug is increased enormously. For example, a cube of 1 cm. has a surface area of 6 sq. cm.; if this cube be further divided in cubes of ½ cm. then the total surface area will be 12 sq. cm. If these cubes be sub-divided in further small cubes, the relevant surface areas will increase proportionately. The surface area may be extended to the extreme by gradually increasing the sub-divisions of these small cubes.

7. The catalytic effects, colloidal properties and the absorptive qualities of drugs increase proportionately with the increase in surface area.

Demerits of Triturations

1. It is a cumbersome process with low productivity, especially the old method.
2. It does not help complete inter-mixing and interchanging of drug substances, where the substance to be triturated are harder than milk sugar, like some hard metals.
3. Milk sugar has some aldehydic property, which may reduce some drug substances, especially mercury compounds under the process of trituration.

Note: To increase the productivity and to minimise the cost of production, mechanical devices are being employed nowadays. But strict rules for such mechanical appliances in all their interdependent details" has not yet been well laid down.

POTENCY AND DILUTION

Dilution is reduction of concentration of an active substance by addition of a neutral agent or a solvent. This process is employed to decrease the intensity of action of a substance. By this process the property of the substance does not change. For example, when sulphuric acid is diluted with water, it's strong acidic character is reduced in intensity but it's properties do not change. The extent of a dilution merely indicates the final volume of solution. A five-fold dilution means addition of a sufficient solvent to make the final volume five times the original. With the increase in the quantity, it's properties are:

Potentisation is dilution along with pharmaceutical techniques of a succussion and trituration. This technique is responsible in arousing the latent curative properties of the substance. By potentisation, the property of the substance can be changed. Inert crude substances can be converted into therapeutic agents.

USES AND ADVANTAGES OF POTENTISATION

Dr Samuel Hahnemann recognised that the therapeutic action of a drug is the opposite of its physiological action. To release the latent energy of the drug while at the same time, depriving it of its destructive action, he perfected a simple, accurate and reliable mean, called *potentisation.* By this process, the field of therapeutics has been widened immensely.

For example, sodium chloride (NaCl), our common salt is widely found in nature and is an essential part of our diet. This white, crystalline compound in material doses does not possess any medicinal power. However, when subjected to potentisation, its marvellous curative powers in the latent state are unleashed which serve to cure an array of diseased conditions. This is one of the most convincing proofs, even to the most prejudiced, of the fact that the processes of succussion and trituration used in homoeopathy, bring new powers into this world which the nature had kept hidden. Dr Burnett took "Natrum muriaticum as the test of the doctrine of drug dynamisation".

Potentisation, not only renders deadly poisons like snake venoms harmless but transforms them into beneficent healing remedies. Substances which are medicinally inert in their crude nature state like charcoal, Lycopodium, etc. are made active and medicinally effective. Other drug substances with weak medicinal powers have their medicinal qualities enhanced and their sphere of action widened by potentisation.

Dr Stuart Close in *'The Genius of Homoeopathy'* points out the advantages of dynamisation while distinguishing it with vaccination.

- Dynamisation is purely physical, objective and mechanical.
- It does not involve any uncertain, unseen, reliable nor unmeasurable factor. Its elements are simply the substance or drug to be potentiated, a vehicle consisting of sugar of milk, alcohol, or water, in certain quantities and definite proportions; manipulation under conditions which are entirely under control.
- The resulting product is stable or may easily be made so; infact it is almost indestructible, it is efficient and reliable in the treatment of all forms of disease amenable to medication.
- The process is practically limitable. Potentisation of medicine can be carried to any extent desired or required.

Advantages of using 3c Trituration in the manufacture of Homoeopathic Medicines

Master Hahnemann triturated medicines up to the 12c while in 1835 changed to the 3c producing higher potencies in fluid form as they offered the following benefits rather than those medicines produced from mother tinctures and solutions.

- Produced more powerful action
- Produced more perfect medicines
- Trituration of fresh plant material was being done
- Trituration with lactose retained all the natural constituents
- Guaranteed shelf life (almost unlimited)
- For preparation of 3c to prepare potencies according to fifty millesimal scale.

Note: Friction enhances the dynamic medicinal powers of natural substances.

MODERN POTENTISATION TECHNIQUES

Master Hahnemann made use of varied degrees of dilution, from the original tincture upto the 30^{th} centesimal dilution. But the 30^{th} potency was by no means high enough for his students and so they produced a 60^{th}, 90^{th}, a 200^{th} and finally even a 1500^{th} potency. Among these enthusiasts, Dr Gross, Dr Schreter and General Korsakoff of Russia played the principal part who became the real founders of the theory of high potencies, after which Stapf became an industrious and zealous protagonist. Within Hahnemann's lifetime, the drugs became more attenuated. Boenninghausen and Lehmann, a pupil of Hahnemann, produced preparations made by hand in the Hahnemannian manner

upto the 200th attenuation. Jahr, a pupil of Aegidi, and Hahnemann described his observations that the higher the drug was attenuated, the more strongly and rigorously developed were the individualizing properties of the drug. After the death of Hahnemann, his followers took up different methods of dynamisation.

GENERAL KORSAKOFF OF RUSSIA

Count Graf von Korsakoff, the real originator of high potencies, as he executed the idea of dilutions as high as 1500. *He developed a brilliant notion that one single medicated globule when placed among many non-medicated globules communicated its medicinal power to the non-medicated globules.* He diluted medicines upto 150th, 1000th and 1500th attenuation, and found that this degree of dilution proved to be quite efficacious.

JENICHEN OF WISMAR

Jenichen, Hahnemann's admirer, pursued the idea that *further attenuation is not necessary for the dynamisation of medicine, but continuous succussion without dilution is sufficient.* He advocated that the degree of strength developed through potentization was directly proportional to the number of strokes given. Thus he suggested that every ten strokes given would increase the dynamic strength of the medicine by one degree. For the 200, he gave ten strokes per degree of potency, upto the 800, twelve strokes and from 800 to 40000, thirty strokes.

CARROLL DUNHAM

Dunham was one of those who mechanised the process of potentization. He availed himself of an abandoned oil-mill, in which, by waterpower, four stampers, consisting of large oak timbers, eight inches square and eighteen feet long were lifted and let fall at a distance of eighteen inches. By means of strong oaken receptacles, bolted firmly to the stampers, 120 vials were succussed at one time, and thus that number of medicines was, by a single operation, advanced one degree in the scale of potentisation. 125 such succussions were given to each potency. (Dunham potencies were given to Smith's Pharmacy in New York City).

BERNHARDT FINCKE

Fincke, an American physician, had experimented with several methods of making higher potencies. His original potencies were made by hand with alcohol in the Korsakovian manner. He succussed each potency 180 times. From these potencies he prepared higher potencies. He had originally used a spring as a model of power for his succussions. In 1869, Dr Fincke was granted a patent for a new potentising process, that of ***'fluxion'.***

FLUXION POTENCY

It is a special and peculiar process where 6x potency, obtained by trituration is converted to 8x potency by succussion without producing 7x potency. Hence, fluxion potency is also known as 'Jumping potency'. It is the potency of the homoeopathic medicines, derived by displacement. Hahnemann directed that all metallic substances must be powdered and triturated into the corresponding solid potencies. As because up to 6x or 3 centesimal triturations, the medicinal content of the drugs (original or crude or triturated), are neither soluble in alcohol nor purified water.

CONVERSION OF TRITURATION INTO LIQUID FORM BY FLUXION

1. Take a 30 ml. new phial, with a new velvet cork and mark clearly the name of the medicine and potency 8x or 4 on the cork and on the outside wall of the phial.

2. Take 0.2 mg. of the 6x or 3rd centesimal trituration of the medicine in the phial.
3. Pour 10 ml. (i.e., fifty parts) of purified water over it, and gently shake the phial to dissolve the drug substance.
4. Now add 10 ml. (i.e. fifty parts ten) of dilute alcohol, and after it is well corked, give fine, equal downward stroke, which should end in jerks. The 8x or 4th centesimal potency is then ready. All further potencies are prepared by taking 1 part of the preceding potency and 9 parts of alcohol under decimal scale or 99 parts of alcohol in centesimal scale.

In this method, by jumping we get 8x or 4th centesimal potency from the corresponding 6x or 3rd centesimal potency, and so is known as 'Jumping potency' as Fluxion potency. 7x liquid potency cannot be prepared by this method. In preparing the above potencies, the relevant procedure or rules must strictly be followed.

STRAIGHT POTENCY

It is conversion of trituration to liquid. According to Dr Burt of London, the 7x liquid potency of a requisite medicine can be prepared from its 6x trituration.

Method

1. Take 1 part of the requisite 6x trituration in a new, well cleaned round phial.
2. Add 9 parts of purified water to it giving ten downwards strokes ending in jerks.
3. Next take 1 part from this resultant 7x liquid and mix 9 parts of alcohol with it.
4. Shake the phial 10 times with uniform strength. 8x liquid potency is then ready.

HIGH FLUXION POTENCIES

Liquid attenuations up to 500th or 1000th potency can be made by hand process. But for making potencies higher than these, say 10M, 50M, CM, etc., a huge amount of time, labour and alcohol will be required. To overcome this problem, during last 75 years some great homoeopaths had invented machines, to make these potencies, under the names of the relevant inventors, e.g. Swan, Deshere, Fincke, Boericke, Lahrmann, Skinner, etc. Such high potencies prepared with the help of machines are known as high fluxion potencies. In this process purified water is used as the 'vehicle' instead of alcohol, for the intermediate steps.

SAMUEL SWAN

Swan used fractional part of potencies and attenuated from them. Swan's machine is similar to Fincke's process except the water coming into the machine was fed through a very accurate water meter, and after the water passed through the meter, it ran through a tube that was closed at the end and perforated with small holes, similar to the end of a watering can, causing a disturbance, more violent than succussion.

THOMAS SKINNER

Skinner took a two-drachm phial and placed in it a drop of the tincture os sulphur. He then allowed water to run very slowly into the phial till it was filled. He then emptied it without any shaking and allowed it to refill in the same way. This he did a thousand times. When next a patient came to him with clear indications for the remedy, he gave a dose.

By 1878, Skinner developed the 'Skinner Fluxion Centesimal Attenuator'. Operation process: The glass vial was filled with tincture and water and shaken for about a minute to impregnate the interior of the glass thoroughly with the medicinal substance. The fluid was hand-shaken from the vial. The vial was then placed in the machine that has been previously adjusted to fill the vial with 100 minims of water before the vial is forced to overturn and dump its contents. Then the machine was started. When a potency reached where it is to be saved, the full cup was

removed from the machine and poured into a fresh vial. It was shaken, emptied, then filled with alcohol and subjected to twenty-five powerful succussions. This alcoholic attenuation was then used to medicate sugar globules. Such potencies were labelled 'RC.' (Fluxion Centesimal) to differentiate them from Hahnemannian Centesimal potencies. Skinner's potencies were prepared by a process of *discontinuous fluxion* in contrast to the *continuous fluxion* of Swan and Fincke. The machine was claimed to make 50 centesimal potencies per minute, 3000 per hour, 72000 per day, 100000 in 33 hours and the millionth in about fourteen days and a half, running day and night.

F. E. BOERICKE

In 1869, Boericke formed a partnership with Adolph J. Tafel and established the firm "Boericke and Tafel".

MULTIPLE OR SINGLE VIAL POTENCIES

The method of potentisation given in the German Homoeopathic Pharmacopoeia requires a new vial to be used for every stage of potentisation, which is the original method developed by Hahnemann (known as Hahnemann's Multiple Vial method). These potencies are called CH 1, CH 2, CH 3, etc. by French. Single vial potencies, i.e. Korsakoff potencies, are easier and cheaper to produce. The disadvantage is that they are less accurate. Hahnemann's method. Hahnemann mentioned that these potencies should be prepared by hand process which was and still is more accurate.

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