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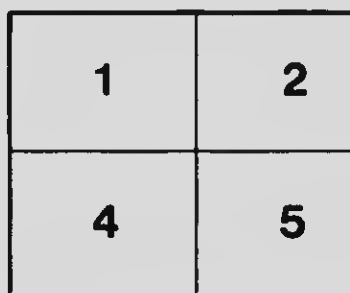
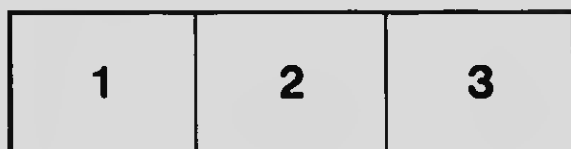
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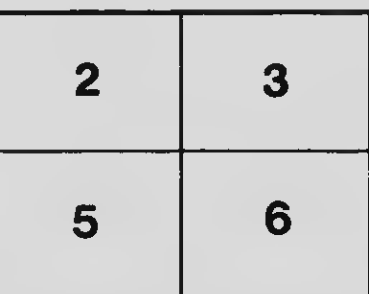
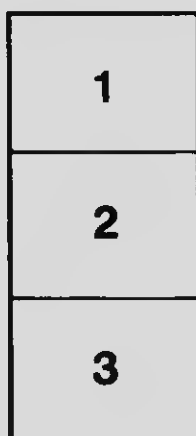
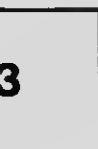
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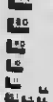
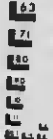
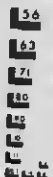
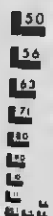
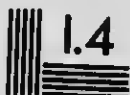
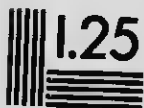
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# MANITOBA BEEKEEPERS' ASSOCIATION

INCORPORATED 1915



## OFFICERS FOR 1918

Hon. President—Hon. V. Winkler.

President—G. G. Gunn, Lockport, Man.

Hon. Vice President—Prof. S. A. Bedford, Winnipeg.

Vice President—B. Brewster, Green Ridge.

Sec-Treas. (to whom all communications should be addressed)—R. M. Muckle, Provincial Apiarist, Dept. of Agriculture, Winnipeg, Man.

DIRECTORS—J. Strathdee, Winnipeg, Mrs. W. H. Hambly, Roseisle, J. Reddin, Elmwood (Winnipeg)

BANKERS—Union Bank of Canada

638.1062

M278

## Membership Fees.

The subscription to the Association is \$1.00 per annum, due March 1st of each year.

Free Premium—The "Canadian Horticulturist and Beekeeper" is given to members as a premium.

Payment of membership fees to the Secretary-Treasurer.

## Summer Field Meets.

Provincial Field Meet at the home of G. M. Newtou, 1 mile South of Selkirk. Bring your basket and spend the day.

Date—July 19th.

Other meets will be held at the following places during the summer:

Teulon, Manitou, Dominion City, Souris, Altamont, Mintonas and other points to be arranged.

## Annual Honey Fair.

The honey fair held during Farmers' Week in February of this year proved a success. It has been decided to hold a similar exhibition next winter. Keep your best honey and wax and exhibit and thus advertise the superior quality of Manitoba honey.

## Other Honey Exhibits of Importance.

Brandon Summer Fair, Brandon.—\$150.00 in prizes.

Winnipeg Garden Show, Winnipeg.

Have a display at your local agricultural fair.

## Advertise Manitoba Honey.

Kindly set aside a few pounds of your best honey and sent it to the Secretary-Treasurer, to be used in advertising the superior quality of Manitoba honey.

## Bee Culture Circulating Library.

Name of Book.	Author or Publisher.
A.B.C. & X.Y.Z. of Bee Culture.....	A. I. & E. R. Root
Advanced Bee Culture .....	Hutchinson
Fifty Years Among the Bees .....	Dr. C. C. Miller
Langstroth Dadant on Honey Bee .....	Langstroth
Manual of the Apiary .....	Cook
Doolittle's Queen Rearing .....	Doolittle
How to Keep Bees .....	Cot stock
Quinby's New Beekeeping .....	L. C. Root

A Modern Bee Farm .....	S. Simms
Wax Craft .....	Cowan
First Lessons in Beekeeping .....	Newman
Doolittle's Out Apiary .....	Doolittle
Townsend Bee-Book .....	Townsend
Natural History of the Honey Bee .....	————
The Life of the the Honey Bce .....	Maeterlinck
The Humble Bee .....	F. W. L. Sladen
The Anatomy of the Honey Bee .....	Snodgrass
The Lore of the Honey Bce .....	Ticknor F iwards
The Honey Bee .....	C. G. Hewitt
Destruction of Germs of Bee Diseases by Heating .....	U.S. Dept. of Agric.
The Temp. of the Honey Bee Cluster in Winter .....	U.S. Dept. of Agric.
The Truth About Sweet Clover .....	A. I. Root
Bee Diseases in Ontario .....	Morley Pettit
Alexander's Bee Book .....	Alexander
Bees and How to Keep Them .....	F. W. L. Sladen
Productive Beekeeping .....	Frank C. Pellet
Beekeeping .....	Dr. E. F. Phillips

### BEE CULTURE LIBRARY REGULATIONS.

That the Bee-culture Circulating Library may best serve the Beekeepers of Manitoba, the following rules should be observed:—

1. All requests for books should be sent to R. M. Muckle, Provincial Apiarist, Department of Agriculture, Winnipeg.
2. One book only may be drawn at one time.
3. A book may be retained for two weeks from date of receipt, but when possible should be returned sooner in order that they may be read by as many as possible.
4. A book may be renewed for a further period if found desirable, and if the book in question has not been called for by another person. When renewal is required, a request must be sent in advance, stating for how long it is desired.
5. Each person will be responsible for the book in his or her possession.
6. Care should be taken to see that the books are well packed to avoid damage in the mail.
7. The cost of mailing is paid by the Department of Agriculture one way. The return carriage is to be paid by the reader.
8. The receipt form sent with the book should be promptly returned. When returning books it is necessary that a post card should be sent stating that the book has been returned.
9. Care should be taken that the books do not go into homes where there is contagious sickness.



# CONSTITUTION

## NAME.

1. This Association shall be known as "The Manitoba Beekeepers' Association of Manitoba."

## OBJECTS.

2. The objects of the Association are:—
- (a) To promote and encourage the keeping of Bees in the most suitable methods for their profitable management.
  - (b) To assist members in disposing of their produce to the best advantage.
  - (c) To obtain the most advantageous terms for members in the purchase of Bee supplies.
  - (d) To effect the standardization of such Bee appliances as may be found most suitable for the Province.
  - (e) To promote and regulate local exhibits and displays of Bees, Honey, Wax, etc.
  - (f) To aid in the dissemination of reliable and practical information with regard to the Bee industry, and further its progress in every possible way.
  - (g) To promote the growing of nectar bearing plants.

An Act to Incorporate

## The Manitoba Beekeepers' Association

Assented to April 1st, 1915.

His Majesty, by and with the advice and consent of the Legislative Assembly of Manitoba, enacts as follows:—

1. This Act may be cited as "The Manitoba Beekeepers Act."
2. In this Act, unless the context otherwise requires,
  - (a) The expression "Association" means, The Manitoba Bee-Keepers Association.
3. The said Association is and shall continue to be a body corporate and politic under the name of "The Manitoba Bee-Keepers Association" for the purpose of the encouragement of bee-keeping in Manitoba, and for all purposes connected therewith or relating thereto; and the Association may acquire and hold, lease, mortgage and alienate property, real or personal, but only for the purposes of the Association.
4. The Association shall be composed of all persons paying an annual subscription of not less than one dollar to the funds of the Association, on or before the day of the annual meeting in each year, and who have attached or who shall attach their signatures to a declaration in or to the effect of the form contained in schedule A to this Act.

5. The present directors and officers of the Association shall continue in office until their successors are appointed.

#### **Annual Meetings.**

6. There shall be a general meeting of the members of the Association held annually at such place as may be decided upon by the by-laws of the Association.

7. At least one month's previous notice of such meeting, with full particulars as to place and date, shall be given by the Secretary-Treasurer of the Association by advertisement in such newspaper or newspapers as the directors may select.

8. At such meeting the officers shall present for consideration by the members a full report of the proceedings of the officers and of the Association, giving in detail the names, addresses and subscriptions of all members, and the receipts and expenditures for the twelve months ended on the thirtieth day of November previous to the meeting.

9. The said report shall set forth the names and addresses of all persons to whom prizes have been awarded at any exhibition held by the Association during the year covered by the report, the amount of each separate prize and the name of the exhibit to which it was awarded, together with such remarks and suggestions on the state of the bee-keeping industry in the Province as the said officers may be able to offer.

10. The report shall be recorded in the minute book of the Association as part of the record of proceedings.

11. After the consideration of the report and the disposal of business connected with it, the members present who have paid their subscriptions, as provided by section 4 of this Act, shall proceed to elect a president, a vice-president, not more than five directors, a secretary-treasurer, and an auditor, as provided by the by-laws of the Association.

12. A certified copy of the minutes of the annual meeting and of the report presented thereat, and a list of the officers elected, with their post office addresses, shall be transmitted to the Department of Agriculture and Immigration by the Secretary-Treasurer of the Association within three weeks after the said annual meeting; and in case these particulars are not transmitted, the Association shall not receive any portion of the Provincial grant for the year next following the date of the meeting in respect of which the default takes place.

#### **Directors-Officers.**

13. In the event of an election of directors or officers of the Association not being held at the time or place provided for under the authority herein, or being for any reason

illegal and void, then the persons in office at the time when such election should have been legally held shall continue to be the officers of the Association until their successors are legally appointed; and in the event of any such non-election or illegal election, a special meeting of the members of the Association shall be called as soon as practicable thereafter for the election of officers, such meeting to be called by the Minister of Agriculture and Immigration, or by his Deputy Minister, due notice of which shall be given; and at such meeting the election of such directors or officers shall take place, and the persons elected shall thenceforth, until their successors are appointed, be the directors or officers of the Association.

14. If a director or other officer of the Association dies or resigns office, or in any way prove to be disqualified during the time for which he has been elected, the remaining directors shall appoint a person to fill the office for the unexpired term of the person dying or resigning or proving to be disqualified; but if for any reason a quorum cannot be obtained, then a person to fill the vacant office shall be elected in the manner provided in section 13 of this Act.

15. At the first meeting of the board of directors they shall, from outside their own number, select an auditor.

16. The directors of the Association may make by-laws and regulations for the government of the Association and the carrying out of the objects not inconsistent with the provisions of this Act; provided, however, that a copy of any such by-law or regulation, duly certified by the Secretary of the Association, shall be transmitted to the Department of Agriculture and Immigration within one week from the date of its passage.

17. The directors, three of whom, with the president or vice-president, shall form a quorum, shall have full power to act for and on behalf of the Association; and all grants of money and other funds of the Association shall be received and expended under their direction, subject nevertheless to the by-laws and regulations of the Association.

#### Report.

18. The Secretary-Treasurer of the Association shall, on or before the first day of December in each year, transmit to the Department of Agriculture and Immigration a statement, verified by solemn declaration, showing in detail the receipts of the Association from all sources and the expenditures of the Association from the first day of December of the year preceding to the thirtieth day of November next thereafter.

19. This Act shall come in force on the day it is assented to.

# Instructions to Beginners.

## Spring.

We advise a beginner to buy bees in his own locality, if possible. If he has little or no experience, he should commence with not more than two or three strong colonies. The best time to begin is from the 15th to the 25th of May—by that time all danger of spring dwindling is over, and the bees will usually give a return on the capital invested during the following summer.

A beginner's outfit should consist of the following:—“A.B.C. and X.Y.Z. of Bee Culture” (revised edition); a good smoker; bee veil; one or two extra hives, complete with supers for each colony, spring count.

In early spring, when the bees are flying freely, examine each colony to see that it has a laying queen and plenty of stores. Remove all drone comb, except a little in one outside frame, and replace it with worker comb or comb foundation, as much as in your power. Every square foot of drone comb thus replaced is equal to a dollar saved. Two drones cost as much to raise as three workers, and after they are raised they keep on eating.

Spring is the season when the bees are most in danger of starvation and dwindling. Watch your colonies, and feed the destitute till the crop opens.

If you have to feed, do not feed with an open dish at the entrance or out of doors, as it would teach the bees to rob. Use proper entrance feeder, or put an empty super on the hive with a dish feeder inside. Do this just before dark and cover up snug and warm.

When you see many bees hunting around nooks and corners, you may be sure robbing is going on somewhere.

Keep the bees warm in the spring by protective packing and contraction of the entrance.

The use of comb foundation not only saves a great deal of labor and time to the bees, but it also secures a straight comb, and prevents the overproduction of drone comb. The increased honey yield more than pays for the foundation.

Do not spray fruit trees when in bloom, as it will injure the trees and is likely to poison the bees.

## Summer.

The honey harvest lasts but a short time—at most only a few weeks—so you must be ready for it. “Make hay while the sun shines.”

One very strong colony will store more in a short flow or a poor season than five weak ones.

If you raise honey and extract it from the combs, so as to return the empty combs to the bees to be filled again, you will produce about one-half more honey after you have a supply of empty combs to keep the bees at work.

If you give your bees a good supply of empty combs before the beginning of the honey flow, and keep them at work, they will not swarm often. But if they once find themselves crowded and get the swarming fever, nothing will keep them from swarming.

The old queen always goes with the first swarm, unless she is unable to fly.

Make but a limited number of swarms, and make them strong and early. Late natural swarms should be returned to the parent hive about 24 hours after hiving them.

When bees are hanging out in front of the hive, it shows that they are uncomfortable in it, or should have room. They should be given more air, more room, or perhaps shade, according to the circumstances.

It pays to have an extractor, and use it, if you own but four hives of bees.

One pound of honey neatly put up for market is a better advertisement than two pounds slovenly put up.

"It pays to advertise."

#### Autumn.

Do not take too much honey from your bees. Remember that it is their surplus you take, and no more.

When you open a hive, if you see any robber bees flying about, you may be sure there is no honey in the fields, and should avoid leaving the hives open or exposing honey where they can find it. All bees will become robbers if tempted with exposed sweets in time of scarcity.

Bees cannot injure sound fruit at any time.

Honey dew or a poor quality of honey is bad winter food for bees, and should be extracted from the combs.

If bees have to be fed for winter, all the food should be given before the beginning of cold weather.

Thirty pounds of honey at least is required to winter a colony of bees and help them breed in the early spring.

#### Winter.

A room or garret where the temperature varies is a bad place to winter bees. To winter bees in a cellar or basement it should be dry, dark, and have an even temperature of from 40 to 50° F.

Low cellar temperatures are almost sure to be fatal.

Bees can be wintered outdoors in Manitoba by packing with sufficient dry oat chaff.

### Sundry Advice.

If you suspect "foul brood," or other diseases, write, describing the conditions, to R. M. Muckle, Department of Agriculture, Winnipeg.

A bee-veil is very useful at times. Some beekeepers do not use veils, but these occasionally get stung about the face, which is unpleasant. Black is the best color for veils; a white or colored net interferes with the vision.

The best time to handle bees is in the warmest part of the day, as many of the bees are then in the fields.

Smoke the bees a little at the entrance before opening a hive.

A large honey yield can be secured only by careful attention. The points in management which require special care are: Good wintering, providing plenty of stores and sufficient protection from the cold in the spring, and keeping the bees together during the season. Increase of colonies should be avoided rather than encouraged.

Make it your business to know the symptoms of American and European Foul Brood. This can be done by getting a bee book from the circulating library.

## Bee-Keeping in 1917.

Manitoba's honey crop increased last summer, in spite of the fact that the crop per colony was rather below the average because of adverse weather conditions. Beekeepers of Eastern Canada and the United States had much the same experience. Prices for honey, however, were from three to five cents a pound higher than the previous year, which made up to the individual producer for the reduced yield. The high quality of Manitoba honey is being more widely recognized, and many buyers are now glad to give a higher price for the home product than for the imported. This is as it should be, as there is no more reason why Manitoba should import honey than why we should import wheat. The same conditions of soil and climate that produce No. 1 wheat produce a honey that is unsurpassed and but rarely equalled.

More than ninety people, mostly farmers, entered the bee-keeping business in the province during 1917, which largely accounts for the increased total yield. No less than 147 colonies of bees were procured for beginners by the Department of Agriculture, and all of these were given more or less aid and instruction.

A careful study of honey plants was made by the Department during the year with the purpose of determining if

possible the most suitable localities in the province for bee-keeping. A large honey yield is assured where the fireweed (*Epilobium Augustifolium*), aster and goldenrod are plentiful. These valuable plants are found in many parts of the province, particularly in forest clearings and places recently burned over. It is suggested that it would be well worth while to place at least one hive of bees in outlying districts where conditions are deemed favorable, to demonstrate to homesteaders and others the profits that may accrue from this interesting industry.

#### Little Disease Reported.

The number of diseased colonies of bees is on the decrease. In the Dauphin district two years ago several bee yards were affected with the much dreaded American Foul Brood, but last Summer only slight traces of this disease were discovered in one yard. All other apiaries in the district were found free from this scourge. On the other hand, it is regretted that European Foul Brood, a contagious disease of the hatching bee, made its first known appearance in Manitoba. Two apiaries were found affected, and it is believed the germs were from bees imported from the south, as this disease cannot occur spontaneously. Black bees or inbred Italians are the only ones susceptible. The colonies affected were Italianized with pure-bred Italian queens, which should totally destroy the cause of trouble. It was found necessary to destroy one hive of bees at Dominion City because of American Foul Brood. It is held that in the interests of the industry it would be best always to destroy all affected colonies.

Four beekeepers' field meets were held during the season at different points in the province, with an attendance running from 23 to 41. Lectures and demonstrations were given at each meet, and it is suggested that there should be many more of them during the coming Summer, as they are of special value to beginners and there is evident a great demand for practical education in apiculture.

The wintering of bees continues to be a complex problem, and further experiments have been carried on during the Winter. The determining of the best method of outside wintering is occupying the best efforts of the Department because of the fact that many beekeepers are without suitable basements, and consequently the loss of bees '1 Winter is still considerable.

During the Winter months practical instruction on bee-keeping was given to students at a number of the Short Course Schools held throughout the province by the Extension Service. A number of illustrated lectures were given on request in schools, halls and churches. Lectures on bee-keeping were also given to the students at Manitoba Agri-

cultural College during the Fall term. The circulating library operated by the Department has also proved of much value, especially to beginners.

With the high cost of living, jams and sugars, it is imperative that every effort be put forth to increase the honey crop of the province. Beekeeping is one of the few occupations open to men and women with small capital, and is especially adapted to those not capable of strenuous manual labor. It is an occupation that should strongly appeal to a number of our returned soldiers, and every assistance possible will be afforded those wishing to establish apiaries.

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## Wintering Bees in Manitoba.

The beekeepers of Manitoba lose at least one sixth of their colonies every winter. This is the average, and is not above the loss elsewhere. Much of this loss is due to not having the bees properly prepared for winter. Lack of quality of stores, poor queens and excessive swarming all take their toll, and these losses are often attributed to improper cellar winter conditions.

It is important and necessary, then, that we know how to prepare our colonies for winter as much of the success of wintering depends on the condition of the colony when going into their winter quarters.

Since weak colonies so frequently succumb in winter, it is obvious that a too rapid increase in the number of colonies in summer is unwise. Aside from the loss in the honey crop, too rapid increase often means too rapid decrease, because of danger of weak colonies dying during the winter. In Manitoba we will get our maximum profit by allowing the colonies to swarm only once in the early summer.

We must have our colonies strong in young bees when going into their winter quarters, because in a strong colony many bees in the centre of the cluster may be engaged in heat generation, and there will still remain many to serve as insulators. Old bees that have been worn out gathering in the late summer soon succumb, thus leaving the hive in a weakened condition.

To have all hives well filled with young bees, in the autumn, it is important that we have the right kind of queen bee; one that will lay a large number of eggs and continue to deposit eggs until the cold weather sets in. The writer's experience has been that it is unwise to keep a queen bee longer than two years; in fact, in Manitoba they seldom, if given plenty of room to lay, live that long. It is well to have the hives protected in the fall from the cold North and West winds as this protection helps to keep the colony in good condition for winter.



Much of our winter loss is due to inadequate stores. A colony of bees in Manitoba will eat about ten pounds of honey during the time they are confined by the cold. Leave the bees at least thirty pounds of honey, as with this amount they will have sufficient to do until they gather again in the spring. Be careful not to leave honey from year to year in the brood chamber, as this honey will granulate during the winter and cause loss. Our late fall gathered honey often candies quickly and is therefore not the best for winter food.

If it is necessary to feed, a sufficiently thick sugar syrup can be made of two parts of sugar to one of water by volume. To this add 1 ounce tartaric acid to each 50 pounds of sugar, while the syrup is being heated. This syrup should be boiled 15 minutes. The acid helps to invert the sugar and thus retard its granulation in the combs.

The principal way of wintering bees in Manitoba is in cellars or basements. Do not place the bees in their winter quarters until you think they have had their last fly for the year. This is usually about the first week in November. Another, and perhaps better plan, is to have the hives well protected on their summer stands with straw, or some other material, and put them in the cellar when the cold weather commences. A satisfactory plan followed by many is to have their bees well protected outdoors, and then place them in the cellar or basement when the temperature can be controlled so that it will remain about 45 to 50° F. Ideal cellar winter conditions are an even temperature around 45 to 50° F., freedom from dampness, proper ventilation, total darkness and quietness.

Have the cellar or basement well built so that the inside will not be affected by the outside temperature. Many make the mistake of allowing their bee-cellars to become too cold. This causes a slight movement of the bees in the cluster to generate heat. Bees are expensive heat producers as this muscular motion, if long continued, wears the bees out, causing early death, besides necessitating increased consumption of stores, which will often bring about dysentery. Many follow the practice of having a pipe from the furnace to the room where the bees are kept, and in this way are able to regulate the temperature.

In many of our cellars excessive dampness often causes considerable loss. To prevent dampness have the proper temperature, sufficient ventilation, and if necessary, use some hygroscopic substance, such as lime. The best results are obtained when the hives are placed up from the floor at least one foot; the cellar having two ventilators, one going right down to the floor, the other in at the ground level.

Beginners often make the mistake of trying to examine the bees during the winter to ascertain, if possible, the condition of the colony. Have proper cellar conditions and do not disturb the bees until they are to be placed on their summer stands in the spring.

A number of our beekeepers in Manitoba winter their bees outdoors by packing them with oat chaff, saw-dust, or dry leaves. From experiments conducted at the Agricultural College, we have found that bees wintered in this way must be populous, and have at least eight inches of packing on the sides, and 1½ feet above for best results. It is impossible to give too much packing. The writer would not advise those who have good cellars or basements to try outside wintering.

Several beekeepers winter their bees in camps, as outlined in some of our bee-hooks. From experiments conducted by the writer, this method of wintering is a success only where the soil is dry and sandy.

Many are able to bring their bees through the winter alive, but in very poor condition. Successful wintering means having the colonies populous in the early spring so that they will be able to gather an abundant harvest during the honey flow.

Take the bees from the cellar when the willow comes in bloom. Protect them from the cold North and West winds in the spring and if necessary feed to build them up for summer.

Much of our winter loss is due to carelessness on the part of the beekeeper. If bees are worth keeping they are worth the necessary attention. Care and attention will insure you a large honey yield in Manitoba nine years out of ten.

R. M. MUCKLE,  
Provincial Apiarist.

## Firms Handling Bee Supplies in Manitoba.

General Supplies.—Andrews & Sons, Portage and Victor Sts., Winnipeg. Steele Briggs Seed Co., Winnipeg.

Honey Tins.—Sheet Metal Product Co., Winnipeg.

Comb Foundation Manufacturers.—Thos. Gelley, East Kildonan. Geo. Wood, Emerson.

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Any person interested in Bee-keeping may become a member of the Manitoba Beekeepers' Association by the payment of the annual membership fee of one dollar. (See page 2)

## **FREE BEE LITERATURE**

A free copy of the Bulletin, "Bee-keeping in Manitoba", may be obtained by addressing the undersigned.

## **CORRESPONDENCE**

Correspondence on all phases of Beekeeping is solicited. Address

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