A PARTIAL HISTORY OF ODONTOGLOSSUMS IN GREAT BRITAIN

by Brian Ritterhausen

Odontoglossums belong to the enormous sub tribe *Oncidinnae* whose main genera also include *Oncidium, Miltonia* and *Cochlioda*. The genus *Odontoglossum* consist of about one hundred known species. These are distributed throughout South America at altitudes of between 1,500 and 2,750 meters, in cloud forest areas close to the equator in Columbia, Ecuador and Peru. In these tropical regions where is little difference between summer and winter months as we know them. The climate can be considered idyllic, with almost permanent spring all year round. Some species also occur further north, crossing the Panama isthmus into Guatemala and as far as northern Mexico, always growing at high attitudes, very seldom to be found in the tropical lowlands.

The first odontoglossum was discovered by Humboldt and Bonpland. Friedrich Heinrich Alexander Baron von Humboldt was born in Germany in 1769, and before his death in 1859 he had successfully explored enormous areas of South America. In his lifetime he was to discover 2,000 rivers, mountains, plants, animals, ocean currents, and even a crater on the moon named after him. In 1799 Humboldt teamed up with the Frenchman, Aime Bonpland, together they traveled to Venezuela on a trip

of exploration and discovery. Although they spent only five years on the South American mainland they covered a very large area. upon their return to Europe they brought with the over 60,000 specimens of which no less than 3,000 were new plants unknown to science. Humboldt and Bonpland were original gentlemen collectors who, according to records, wherever they went with their team of Indian guides were always immaculately dressed. Working thought the jungles of South America, they made their way up through the valleys to the foothills of the Andes in Northern Peru. Here amongst the man plants they discovered was the type Odontoglossum. A



Baron von Humboldt (seated left) and Aime Bonpland (right, standing) from a contemporary painting.

specimen of O. epidendroides was brought back to Europe and described in 1815 in their work Nova Genera et Species Plantarum. The names Odontoglossum referred to the shape of the lip with the two tooth like protuberances at the centre and epidendroides simply means "upon a tree", so they aptly names this new orchid "The plant with the toothed tongue that grew upon a tree".

From that time onwards many orchids were arriving in England, sent by various collectors for the botanist and taxonomists of the time to classify and name. They were at first in the form of dried herbarium specimens and it was not until 1835 that the first Odontoglossum successfully bloomed in England in the collection of Lord Rolle at Bieton in South Devon. The great Palm House at Bicton was built in 1820. It stills stands today and is the oldest palm house in existence in the world. This species,

named after the estate, was *Odontoglossum* bictoniense. It is still of importance today and is worth having in any collection, being cool growing and easy to cultivate. O. bictoniense was discovered by Mr. George Ure-Skinner in Guatemala who sent the first plants to Mr. James Bateman in England who in turn passed some on to Lord Rolle. The following extract is taken from Bateman's Monograph of Odontoglossums.

"...Odontoglossum bictoniense so called after lady Rolle of Bieton in Devonshire was the earliest species of this popular genus that ever reached England alive. It also formed a portion of the first box of orchids that I ever received from Guatemala, whence they were sent to me in 1835 by my invaluable friend George Ure-Skinner, now 1867 alas! most suddenly and unexpectantly - numbered with the dead!

This is not the place for a memoir of that generous and enthusiastic spirit - let it suffice to state the Mr. Skinner was on his way to Guatemala fro a final visit when he was attacked by yellow fever early in February last on the Isthmus of Panama and carried off after three days illness! He was collecting plants on the Saturday before his death, and on the Wednesday he was a corpse! He was in his 63rd year and had he been permitted to return to England, would have crossed the Atlantic exactly forty times!" A further



Odontoglossum epidendroides, the type specimen from Nova Genera et Spices
Plantarum 1815.

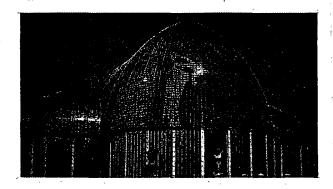
quote from Bateman's "The Orchidaceae of Mexico and Guatemala States"...Mr. Skinner poured into our stoves (greenhouses) the richest of treasures of the Barrancas of Guatemala..." Another closely related species discovered at the same time in Guatemala and first flowered in this country in 1858 was *Odontoglossum uro-skinneri* named after Mr. Ure-Skinner.

Odontoglossum pulchellum, the name means "pretty" was first introduced from Guatemala in 1841. It is a strange species from which little hybridization has been done but today still readily available, and cultivated by most amateurs. In recent years the botanist have considered it more likely to belong to a new genus Osmoglossum.

One of the most northerly of the Mexican species is *Odontoglossum rossii*. It was plentiful in earlier years with many named varieties showing strong color variations. Probably the best known variety is *O. rossii* var. *majus* which is unavailable today in its true form. This species was originally discovered in 1837 by an early explorer, John Ross who was on a collecting trip for Mr. Baker of Birmingham.

Probably the largest and most spectacular of all the odontoglossums is the strange O. grande from Guatemala, first found in the valleys quite close to Guatemala City. there are several closely

related species with which it will hybridize but is has always failed completely to cross breed with other plants of the genus. It is not surprising to learn therefore that in 1976 it was reclassified with other plants with which it closely related into a new genus, Rossioglossum. The plant was discovered by Ure-Skinner in 1839 and was first flowered by the Duke of Bedford at Woburn Abbey in 1841. Odontoglossum cirrhosum, "a lock of curled hair" was first collected Ecuador in 1833, although flowering plants were not established in Great Britain until 1975, after which it was available in large quantities. Today it is a highly sought after rare species, anyone who can obtain a good variety of this Odontoglossum is very lucky!



The oldest Palm house in existence at Bicton Gardens, built in 1820

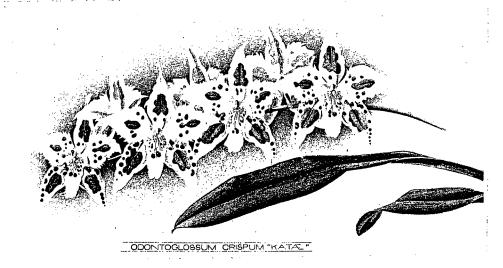
Also from Ecuador comes *Odontoglossum hallii* first collected by Colonel Hall, who sent home herbarium specimens in 1837. The firms of Stuart Low and Veitchs successfully bloomed plants from 1864 onwards. Today it is fairly rare.

Odontoglossum harryanum, described in 1866 by Professor Reichenback and names after Harry Veitch was a species that was to prove very important to orchid hybridizers. It is extremely variable and can be raised fairly easily from seed, making it occasionally obtainable today.

Odontoglossum luteo-purpureum is widely distributed throughout the Andes and was first discovered in 1842 in New Grenada by a botanist called Linden. It is interesting to note that luteo-purpureum means "yellow with purple". The first flowers to arrive in England were pressed herbarium specimens as stated earlier, these flowers will often develop purple pigmentation colour. When we see blooms of a living flower it is dark chestnut brown with yellow markings. Due to its wide geographical

distribution and its habit of interbreeding with others of the same species with which it may be growing is highly variable. It can be found today and could be an important parent for the future.

Without question the most famous of all the *Odontoglossum* species is *O. crispum*. This was first discovered in 1841 by



An early form of *Odontoglossum crispum* 'Katae' from and original watercolour (photo: Brian Rittershausen).

Carl Hartwig. He found plants growing near Bogata and successfully shipped home a number of live specimens. Unfortunately owing to the belief that persisted in those days that all plants from South America required tremendous heat, these first specimens quickly dies. It was not until 1863 when the cultural requirements of these orchids were more fully understood that the Royal Horticultural Society and Low and Co. were successfully importing large quantities. Owing to the extreme variability of the species anything from pure white flowers to heavily



A further form of *Odontoglossum crispum* showing the rounder flower which was to become the "premier" type (photo: Brian Rittershausen)

spotted varieties let to it being classified under several names. One of the most famous occasion being when Lindley described it as a new species under the name *Odontoglossum alexandrae* after the Princess of Wales, only to discover later that it was a variety of *O. crispum*.

The cultivation of odontoglossums in the British Isles is naturally linked with all other greenhouse plants as well as orchids. The early gardeners insisted that all tropical plants from the hot steamy jungles where the light was poor should be grown in what they called a Stove House. The green houses were constructed against a brick wall which consisted of a hollow flue and the furnaces beneath were kept stoked day and night producing tremendous heat. This combined with constant damping down and heavy shading meant that hardly any of the cool growing orchids could survive. The few that flowered under such conditions were accredited to the great skill of the grower.

One of the first men to realize that these orchids were high altitude, cool growing plants was Joseph Paxton, head gardener of the Duke of Devonshire, who turned off the heat, and threw open the windows of his Odontoglossum house, with the results that the plants started to grow, make roots and flourish. Now, for the first time a proper understanding of orchids and their requirements were beginning to develop. In 1833 Paxton built a huge conservatory 90 x 20 meters, over an acre under glass. He sent John Gibson, the first true orchid collector, to Assam and elsewhere. Gibson returned with full information regarding the altitude, the locality, the rainfall, and much more data that was useful to ensure successful cultivation of the orchids he collected.

Within a short time orchid fever had gripped Europe and nowhere more so than on the big privates estates of England. No garden was complete without its orchid collection as growers and collectors vied with each other to pay the highest price for the best and latest species available.

Collectors wee dispatched all over the world to bring home what treasures they could find and the cool growing odontoglossum, particularly those from the Andes received the greatest amount of attention. The plants were gathered in the thousands, dried out, packed into boxes and started on their long arduous journey on the backs of mules across the mountain ridges. They were taken down into the hot tropical valleys to the nearest river point to be loaded on t barges, from where they had to endure the equally lone and sweltering journey to the sea ports. At this stage, they were loaded on to the ships, either packed in the holds to become food for rats and cockroaches, or placed on the open



Odontoglossum luteo-purpureum from an original watercolour (photo: Brian Rittershausen)

deck to endure regular doses of salt spray. It is no great wonder that few of these plants reached our shores alive. Nevertheless, the demand for more and more plants accentuated until fierce competition between collectors caused them to move into areas of forest and systematically chop down every tree striping every orchid from its branches. To ensure success over their rival, they arranged for the natives to bring all plants that could be found to the collecting points. Here they were sorted and any unwanted

orchids considered not up to standard, or plants other than those the collector was interested in, were piled and burnt to prevent the opposition, who may follow, from obtaining any scraps of what was left. Very few odontoglossums grew near the ground, most wee to be found on the trunks or higher branches of the evergreen oak and walnut trees which grew profusely in the valleys of the higher Andes.

Throughout thousands of years different varieties of each *Odontoglossum* species had evolved in each Andean valley. The steep terrain and sheer sided valleys meant that cross pollination was unlikely between different colonies. The early explorers first described how spotted varieties of *Odontoglossum crispum* grew in one valley while the white varieties were to be found in another. Sanders Orchid Guide listed sixty seven names varieties of *O. crispum*, yet today not one is to be found in any nursery catalogue. By the end of the century there were hardly any left, the forests had been felled and the plants stripped from the fallen trees. It was the end of an extraordinary era, where orchids were auctioned daily by amoung others, Prothera and Morris of Cheapside, London. The choicest varieties fetched many hundred of guineas while the vast majority were sold for a few shillings. The majority of these would struggle to grow for a few years, while many were to perish through lack of proper understanding.

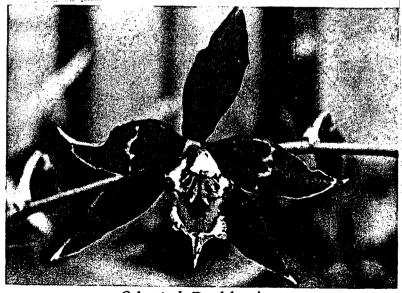
Today, the situation is different, but now it is not the collecting by enthusiastic growers which is threatening these plants but the total destruction of their habitat caused, it would appear, by over populated communities striving to increase their meager agricultural production. Those wild plants which still remain are strictly controlled by new international laws on endangered species, which endeavors to protect both flora and fauna. We can only hope this act will be successful to enable all endangered species to survive yet another catastrophic encroachment by man upon wild habitat.

The Dawn of Hybrids

By the turn of the century a number of large orchid nurseries were giving their attention entirely to the culture of odontoglossums or "Odontogloss" as they preferred to call them. They included Sanders of St. Albans, Stuart Low & Co.,

James Veitch and Sons, Charlesworth & Co., Mansell & Hatcher and McBeans Orchids. While many other orchids were being hybridised, the odontoglots remained elusive, the plants were slow to propagate and the only way of increasing stock was to perfect the raising of seedlings, an attractive proposition to any nurseryman.

A few amateur growers were having some success in this field. William Thompson from Stone in Staffordshire produced many fine healthy seedlings from a wide variety of crosses, using Odontoglossum crispum in the parentage. He had built up his seedling collection to several thousand plants when his heating system broke down and the whole stock of



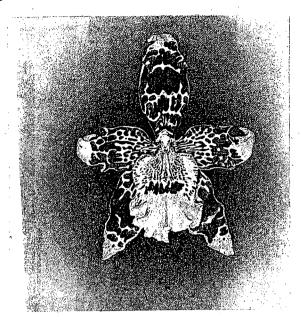
Odontioda Bradshawiae



A portrait of Richard G. Thwaites Esq.

young plants was lost during the winter. Others who were making a name for themselves by growing odontoglossums included Mr. Thwaites of Streatham, London, Mr. de Barri Crawshay from Sevenoaks in Kent and Mr. R. A. Rolfe, editor of the Orchid Review at that time. Mr. J. Bradshaw from Southgate, London was an enthusiastic odontoglosssum hybridiser and also had several plants named after him. In 1907 Charlesworth & Co. produced the sensational cross Cochlioda noezliana x Odontoglossum crispum. It was one of the first intergeneric Odontoglossum hybrids, and they named it Odontioda Bradshawiae. The habit of latinising grex names was popular and nomenclature changes had not yet taken place. Sir Jeremiah Colman, founder of Colmans Mustard, acquired several plants of the newly raised and sensational Odontioda Bradshawiae which became known as the "scarlet crispum". In 1913 Sir Jeremiah exhibited his plant of Odontioda Bradshawiae 'New York Triumph' in New York where it won first prize and best in show at an international orchid exhibition. He was presented with a special silver trophey to commemorate the occasion and recorded in his memoirs "Yachtsman please note, I took the Americas cup the first time".

Sir James Chamberlain from Birmingham made his fortune out of screws. He had a large orchid collection and was extremely interested in the genus



Odontoglossum Crawshayanum 'Rosefield' (O. hallii x harryanum 1916)



A portrait of de Barri Crawshay Esq.

Odontoglossum. He was never seen without a fresh buttonhole of one of his prize specimens, and the flower he was wearing on the day he died is still preserved along with other of his memorabilia.

The early hybridisers had to be content with sowing their seed around the base of the mother plant where, if they were lucky, a few seeds would germinate, or in pots containing specially cultivated sphagnum moss. With the realization that orchid seed germinates in association with a microscopic fungus, and the discovery that this could be cultured in flasks when the seed sown in direct contact with the fungus would germinate, Charlesworth & Co. were one of the first to take advantage of the new technique. By the time the first World War was over and normality had returned Charlesworth had moved from Bradford and established themselves at Haywards Heath, south of London. Here the raising of orchids by artificial methods was perfected and enormous quantities were grown to flowering size. It was during this era that many of the orchids still enjoyed today were raised.

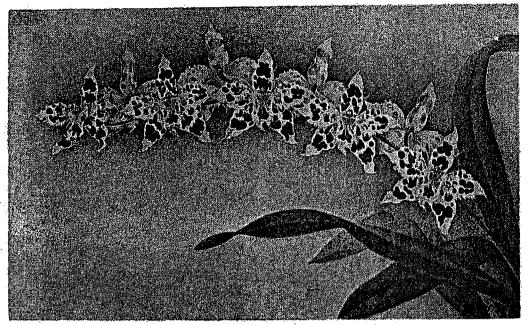
Hybrids were now being made between the obvious choices of species from the Andes. *Odontoglossum hallii x crispum* made O. Halliocrispum and the naturally occurring hybrid *O. pollettiamum*, also know as O. Andersonianum, was made from *O. crispum x gloriosum*. Perhaps the most obvious choice of all was *O. crispum x*



Odontogossum Pollettianum (photo: Brian Rittershausen)

pescatorei making O. Ardentissimum. This plant, raised in 1898, is one of the very first man made hybrids and is still available today. One of the first successful crosses between a South American and Mexican species was O. Crispoharryanum x rossii which made O. Smithii and received an FCC from the Royal Horticultural Society in 1905. Other intergeneric hybrids using Cochlioda noezliana and Cochlioda sanguinea were quick to follow. The latter crossed with Odontoglosssum cirrhosum produced Oda. Heatonensis in 1906 and we shall see results of using Oda. Heatonensis as a parent nearly seventy years later. Odontioda Keighleyensis was made from Cochlioda noezliana x Odontoglossum cirrhosum in 1908 and remains today one of the most popular orchids in cultivation. Although shy flowering on a small plant it is greatly sought after by collectors of antique orchids. Another unusual cross made between North and South American species is Odontoglosssum Groganiae made in 1908 between O. edwardii and O. uro-skinneri. The cross of Cochlioda noezliana x Odontoglosssum harryanum gave Odontioda Charlesworthii 'Theodora' which received an FCC/RHS in 1910, this beautiful deep red bloom would be worthy of an award today.

We have already seen one hybrid from *Odontoglossum rossii* but the most famous of all from this period was O. Queen Alexandra x rossii producing O. Woodroffeae in 1912. Strange as it may seem no other O. rossii hybrid has produced



Odontogossum Hallio-crispum (April 1902)

anything as outstanding; being a p u r e Odontoglossum it is slow to propagate but it is still found in some private collections.

In those days it was possible to register a plant even though the records of its parentage were lost. One example of this was Odontoglossum Goldcrest, a beautiful example of O. crispum var. x a n t h o t e s hybridising where

the parents were never recorded. These *O. crispum* type hybrids were extremely popular in the early half of this century but as their popularity waned, lack of interest meant that fewer and fewer of them were grown, we shall hear more about this line of breeding later on. The 1920's and 1930's saw many new bigeneric and quadrigeneric hybrids being raised. Specific lines of breeding which had previously been thought impossible, were surprising the growers every day. Hybrids between odontoglossums and miltonias were producing startling shapes and colours. Such a plant was *Odontonia* Mem. Joseph Charlesworth first flowered in 1920, combining superb colour and a perfectly formed flower.

Vuylsekearas had been produced earlier in the century, but the most important *Vuylsekeara* of all time did not appear until 1931. Although it received awards at the time its true benefits were not fully realised until much later when Keith Andrew from Dorset started to grow his orchids in a totally new and revolutionary compost. His success meant that hybrids which had hitherto produced a few flowers were now seen in much greater glory. He received an FCC/RHS for *Vuylsekeara* Cambria 'Plush' in 1970.

A similar plant is *Vuylskeara* Monica 'Burnham' raised in 1932. Miltonia William Pitt crossed with the *O. edwardii* hybrid O. Brugensis made *Odontonia* Bragelonne in 1937. This gave an interesting and completely new shape of flower in a delicate pink shade.

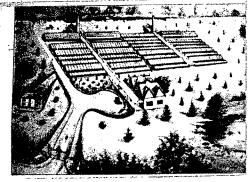
By 1946 over 3000 hybrids of *Odontoglossum*, *Odontioda* and *Odontonia* including 194 vuylsetkearas and many other intergeneric hybrids has been recorded in Sander's list of orchid hybrids.

Today's Hybrid

The outbreak of the Second World War caused a great setback to the hybridization of orchids. It became impossible to obtain staff and the nurseries were greatly restricted in the amount of coal they could use for fueling the boilers. Not until the 1950's did matters change, when a great deal of re-



Sir Jeremiar Colman



Showing the layout of Charlesworth' new nursery built in the early part of the century.

The flower had to match dress and occasion. He even claimed they had raised a special yellow hybrid to match his distinctive hunting jacket!

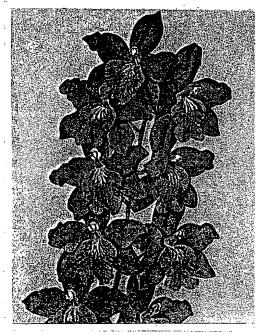
Although blue has always been a colour which has eluded the *Odontoglossum* hybridizer, Mr. Gulbenkian would take an ordinary *O. crispum* flower and place it in ink overnight where the bloom would absorb the blue colour.

Coming up to date, one of the most important amateur orchid growers in the world was the late Eric Young who dies in 1984 leaving an enormous collection of plants which he had built up

organization had started to take place amongst the bigger firms. Sanders was the first to suffer as their huge nursery at St. Albans went into liquidation. David Sander, the grandson of the founder, started a new, smaller business in East Grinstead, where he began breeding and raising his own hybrids.

Odontocidium Selsfield 'Gold' AM/RHS showed the result of crossing a modern Odontoglossum hybrid back on to a species, in this case Odontoglossum Golden Guinea x Oncidium tigrinum. When fully grown this plant is capable of giving a four foot long spike with sixty to seventy deep yellow flowers. The potential for this kind of hybridization was immediately seized upon and has continued to the present day, using modern hybrids and old species, with exciting results.

In London at this time was an Armenian gentlemen by the name of Nubar Gulbenkian. He was probably the last of the wealthy eccentrics and took a great interest in orchids. Although he did not grow many plants himself, he had an arrangement with Charlesworth & Co. that wherever he was in the world they would supply him with a single Odontoglossum flower every day to wear in his buttonhole.



Odontioda Charlesworthii 'Theodora' FCC/RHS 1910



The Rt. Hon. Sir Joseph Chamberlain

at his home in Jersey over thirty years. Eric Young was not only a keen orchid grower but an orchid politician and was always to be seen at the International orchid exhibitions throughout the world.

Unlike great amateurs of the past whose collections were broken up and sold when the owners died, the Eric Young collection is being turned into a trust and will be open to the public in the future. Eric Young had built up a large collection of Odontoglossum hybrids many of which he had raised in Jersey with his team of orchid growers. From this collection have come some of the most modern hybrids with perfectly balanced blooms in beautiful colours. Modern hybrids were often crossed back into species such as O. cordatum to give O. Corbiere, producing an interesting and unusual flower. Odontoglossum Autumn Tints, which is simply Odontoglossum bictoniense crossed with Oncidium forbesii was raised by another important hybridizer, George Black. When exhibited by Eric Young in 1983 it received an AM/RHS.

Wilsonara Uruapan shows the result of Oncidium tigrinum with Odontioda Trixon. The

modern hybrid gives the background shape and colour to the petals, while the broad lip is introduced by the species.

The genus *Sanderara* is very unusual and ver few crosses have been successful over the years. Named after Sanders in 1937 and containing *Brassia*, *Odontoglossum*, and *Cochlioda*, the finest one we have seen must be *Sanderara* St. Helier. We have successfully hybridized from this plant and have limited number of seedlings coming along.

Mansell and Hatcher in Leeds are at this time producing many fine red Odontoglossum hybrids. One of their best known in recent years has been *Odontiada* Red Rum, two clones of which have received AM/RHS for their beautiful colour combinations. The foremost hybridizer of yellow odontoglossums must be Mr. Bert White of Stonehurst Orchid Estate at Ardingly. He has concentrated on a line of breeding using *Odontoglossum* Many Waters and O. Golden Guinea as parents. His finest achievement is the highly successful O. Stonehurst Yellow, which gives non-fading deep yellow blooms with a few brown markings. Three awards to date have been given to this exceptional hybrid.

In recent years there has been a great revival of hybridizing for character rather than complete roundness of bloom. One of the foremost breeders on less conventional lines is Keith Andrew Orchids, Ltd. who specializes in making unusual crosses with a flair for success. *Odontonia* Renee 'Maytime' gives us the perfect combination of *Odontoglossum* and *Miltonia* with all the good characteristics and

none of the bad! It is a well balanced flower with the most delicate patterning of the petals.

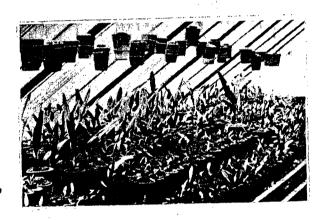
Mentioned earlier in this series was the first generation *Cochlioda* hybrid, *Odontioda* Heatonensis which Keith Andrew continues to use for breeding. When crossed with the modern hybrid Odontioda Fire Dance, it produced a most striking and vividly coloured flower on branched spikes which he names after his son, O. Nicholas Andrew. Going in the opposite direction Keith Andrew also crossed Oda Heatonensis with *Oncidiuim cheirophorum*, a very small but brilliant yellow *Oncidium*, to produce one of the smallest Wilsonara ever, *Wilsonara* Little Gem, a true novelty of a bloom.

As a result of re-selection of jungle collected species over the last few years we have been successful in producing a range of very fine *Odontoglossum harryanum* which Keith Andrew has crossed with yellow hybids. One extraordinary flower to come from a cross with O. Moselle was O. Natterjack, to which there have been two AM/RHS. O Natterjack has been crossed with *O. uro-skinneri* producing an interesting flower in which the O. uro-skinneri is dominant.

Mentioned earlier was *Vuylstekeara* Combria 'Plush' FCC/RHS which although produced as far back as the 1930's has increased in importance in recent years. Surprisingly, it has turned out to be a most disappointing parent and the only notable hybrid to come from it was raised by Keith Andrew and named Vuylstekeara Keith Andrew. Our own lines of breeding have been to follow



The flask house at Charlesworths' in 1920



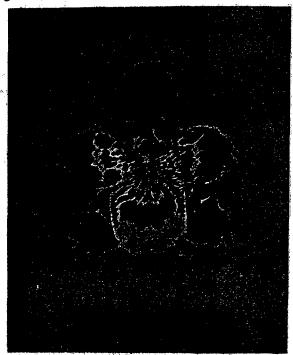
A house of *Odontoglossum* seedlings raised by Mr. William Thompson at Walton Grange, Stone

some of the less traditional hybrids and *Odontoglossum* Red Queen 'Burnham' AM/RHS was one of our earlier awards which has a perfectly round, symmetrical flower in deep red.

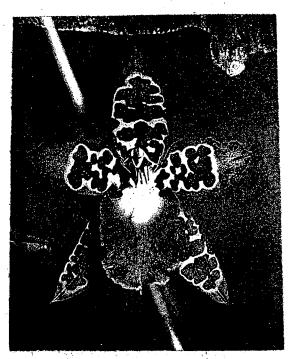
Odontocidium Tigersun 'Orbec' AM/RHS is the result of crossing Odonticidium tigrinum with O. Sunmar and we received an AM/RHS for this plant in 1983. The result of this cross was to produce a flower of even proportions with both parents equally represented. The strong colouration and patterning has come from the Oncidium tigrinum and the shape from the Odontoglossum. Unlike Wilsonara Tiger Talk 'Beacon' AM/RHS, for which we received an award of merit on the same day, the influence of the Cochlioda and the Oncidium is much greater and the ultimate has been achieved with the deep yellow on the dark red petals.

The use of *Oncidium incurvum* in hybridizing has always produced interesting results but never up to the award standard. Small flowers with many on a spike is typical as can be seen in *Wilsonara* Widecombe Fair which can have a four foot spike lasting six weeks.

One of the most dazzling of the new novelty hybrids recently awarded is the new genus



Odontoglossum Queen Alexandra (O. harryanum x triumphans 1902)



Odontoglossum Woodroffeae (O. Queen Alexandra x rossii 1912)

Banfieldara named after Peter Banfield, our head grower at Burham. This is a combination of Brassia, Ada, and Odontoglossum. Although originally bred by Goodale Moir in Hawaii, it does extremely well with us and produces large, golden yellow, star shaped flowers.

There are still plenty of *Odontoglossum* species which at first glance appear to have nothing to offer the hybridizer, and have therefor never been bred from. However, a few years ago we turned our attention to *Odontoglossum trilobum* with its four foot branching spikes and many small flowers. We crossed it with *Oda*. Carisette and named the cross *Odontioda* Honiton Lace. The variety 'Burham' received an award of merit from the RHS and variety 'J.E.M.' received an award of merit from the American Orchid Society, both clones showing great variation with characteristics of the parents.

After Charlesworth & Co. were sold and the land used for building, the stock was taken over by McBeans who continue to produce many fine hybrids by modern methods of culture, while retaining the traditional Charlesworth breeding lines of odontoglossums and odontiodas. The firm's stock of O. crispum 'Xanthotes' hybrids, which have been mentioned earlier, had dwindled over the years through lack of interest. Now fresh crosses were made with renewed vigour which built up a completely new stock of white flowered hybrids with yellow markings. O. Royal Occasion and O. Royal Wedding are both examples of breeding.

Burnham Nurseries Ltd. Kingsteignton Newton Abbot, Devon