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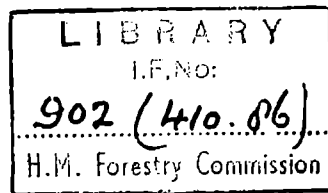
HISTORY  
OF  
HEMSTED

FOREST  
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HISTORY

of

HEMSTED                      FOREST

1924 - 1951

SOUTH EAST (ENGLAND) CONSERVANCY

## HISTORY OF HEMSTED FOREST

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## HISTORY OF HEMSTED FOREST

### GENERAL DESCRIPTION OF THE FOREST

#### Situation

The forest is situated in the Parishes of Cranbrook, Benenden, and Biddenden in the County of Kent.

The nearest main line station is Staplehurst which is 7 miles to the North. Branch line stations are Rolvenden 6 miles south-east and Cranbrook 5 miles West.

The unit was once part of the Hemsted Estate, the property of the Earl of Cranbrook, and from it derives its name. Until 1950 Hemsted was included in with a larger unit, Bedgebury, lying to the south-west and was known as Bedgebury Hemsted. Since 1950 it has been an entity on its own and known as Hemsted Forest.

#### Area and Utilisation

It is uncertain whether the chestnut coppice areas were acquired as plantation but it seems unlikely. Consequently the chestnut areas have been included in "plantable" in Table I. The 3.5 acre acquired plantation refers to a mixture of Douglas fir and European larch which was wind-blown in 1930.

Lifting of the last plants in the nursery will take place this year after which the nursery area will be let for agricultural purposes or be included in one of the Forest Worker's Holdings.

Acquisition and land utilisation details are given in the following tables (Tables I and II).



of the Wealden Series. The resulting soils are light coloured sands, clays and mixtures, loamy on the surface and usually more definitely clayey below. A soft siliceous limestone occurs under parts of the area at varying depths but is not found near enough to the surface to be troublesome.

The soils are marked by sudden changes from sand to clay and there is great variation in fertility. The sands and loams are generally good and, in many cases, very fertile, whereas the clays vary from good to very bad. Areas of podsolised clay occur and have proved to be very sterile.

The mixture of clay and sand which forms the soil over most of the area is fertile where the proportion of clay is not such as to impede drainage.

### Vegetation

At the time of the acquisition the areas were described as very old woodland having for years been worked on a system of coppice with standards and having a few coniferous plantations scattered throughout. In 1924 (time of acquisition) the woodlands consisted of about 350 acres of chestnut coppice worked on a 15-year rotation, 400 acres of mixed oak, hazel, birch and hornbeam and chestnut coppice, and about 250 acres more or less blank, having recently been cleared of coniferous timber.

A  $3\frac{1}{2}$  acre plantation of Douglas fir and European larch 32 years old was acquired with the woods. It was 60 ft. at that age and reported to be growing well. As the site was an old hop garden, the growth cannot be taken as indicative of the area as a whole. The plantation, which had not had a thinning at 32 years of age, was windblown in 1930.

The ground vegetation was described in 1924 as the normal woodland vegetation. Mention is also made, that where extensive clearing of the woodland had taken place, bracken, brambles and birch and other weeds had come in. Before many years, however, a very strong invasion of heather had taken place and large areas were covered by a dense crop of this weed.

The present position as regards the ground vegetation is that dense heather is still present where the coniferous crop has not as yet closed canopy. There is still a fair area in this condition. Rhododendron, which started as ride-side hedges has spread over a large part of Hemsted. In places it has formed a completely impenetrable thicket.

The present tree crop consists of 676 acres of conifers (mainly Scots pine (287 acres), Douglas fir (214 acres) and Sitka spruce (108 acres) with some European larch (56 acres) and a little Japanese larch); 282 acres of hardwood (207 acres chestnut coppice, 58 acres of beech and the rest small areas of birch, ash, oak and alder) and 19 acres of mixed conifers and hardwoods.

The sweet chestnut is derived from the original crop. The Douglas fir and Sitka spruce were planted mainly between 1926 - 1931. The Scots pine was planted during the period 1926 and 1949 but the bulk of it (177 acres) was planted in 1941. The beech was planted 1936 - 1940.

#### Meteorology

The rainfall averages 30 in. per annum and is moderately well spread over the year. Heavy snowfall is rare and winds and gales are of little danger. Late spring frosts, however, do occur with some frequency.

#### Risks

Wind. The acquired Douglas fir/European larch plantation was windblown in 1930 and wind "socketing" is reported in the P.50 Scots pine in the bulldozed area (Compartment 20). The former plantation was neglected as regards thinning and the latter is on an exposed area with no protection from surface vegetation. Both instances may be taken as exceptions, therefore, and generally speaking the forest is not likely to be damaged by wind.

Frost. There is a tendency to have late spring frosts at Hemsted, but damage reported is more or less limited to the severe frost of 1935/36. As a whole, the frost danger does not appear to be very great.

Rabbits. At times the rabbit position has been bad, particularly after neglect of the war years. In 1944, damage was being done to young plantations.

The present position is, that though there are definitely rabbits present their numbers are being kept down and no damage is being done to plantations.

Insects. Cockchafers and cut-worms have been a serious pest of the nursery, entailing extensive fallowing, green-cropping, and use of

insecticides at times.

Mention is made of a severe attack of pine sawfly in 1936 and again in 1937 on the older Scots pine causing severe defoliation - particularly in Compartments 25 and 27 P.26. There are no ill effects showing today.

There is a report, also in 1936, of heavy losses to current Scots pine planting due to the use of Tortrix-infected stocks and a subsequent heavy attack of Heather Beetle.

The forest has not suffered from any serious insect pests in recent years.

Fungi. During F.Y. 36 areas of chestnut coppice were noted as dying back. The immediate cause of the deaths was traced to a fungus, Phytophthora syringae. This infection was due to bad drainage.

Certain areas of Scots pine suffered severely from Melampsora pinitorqua in their early years where associated with natural aspen, but have outgrown the attack and a good stocking survives.

Vegetation. The presence of heather is still a problem at Hemsted. The area occupied by this weed is, however, slowly diminishing and will in time be eradicated as the canopy closes.

Rhododendron has spread and is still spreading over much of the forest. In places it is seriously hampering cleaning and thinning operations. The Research Branch have carried out, of recent years, experiments to control it by means of chemical sprays, but has not succeeded in devising an economic method of eradication.

Fire. Fire is the principal danger to this forest. A fire occurred in 1934, entering from adjoining farm land, and destroying about 16 acres of plantations. Another fire, caused by German incendiary bombs, occurred in 1940, burning 253 acres. A third fire burnt approximately 5 acres in 1947.

After the 1940 fire, extensive ride widening and cleaning was undertaken with the view to blocking the forest into areas of approximately 50 acres.

Thus the forest has a good system of fire traces but the condition



of them is still not quite satisfactory, as many still need the removal of coppice stools in order that quick mechanical means of mowing them can be employed.

The access rides within the forest tend to become very bad after spells of wet weather but progress is being made towards making up strategic rides with stone and clinker.

Water is another problem in the area, as many of the water holes made in the forest tend to dry out during a dry spell.

Compartments 3 and 7 are particularly vulnerable to fire at the present time. They adjoin public road and are part of a large block of thicket-stage Scots pine (area replanted in 1940).

A fire tower has been erected at Dockenden in a fairly central position.

#### Roads

Metalled roads touch four sides of the forest. Six rights of way from the woods over adjoining properties to metalled roads have been conveyed (for details see the second schedule of Conveyance dated 30.6.24). There are also numerous exits from the woods direct on to metalled roads.

The road from the entrance between Compartments 35 and 34 to Dockenden is in good repair for vehicle traffic. The ride from Compartment 17/ Compartments 22 and 20 is also accessible, as is the ride from Compartment 15/Compartments 23 and 24.

The existing system of internal rides is ample, but most of these become very soft and unsuitable for winter haulage.

#### Labour.

In common with most forests, Hemsted has suffered a labour shortage at times, particularly during the war years. During 1941 to 1946 the average labour force was 6-10 workers. As there was an 11 acre nursery to maintain, it can be appreciated that many of the forestry operations were neglected.

In 1947 the number of workers rose from 6 to 13. Since 1948 the number has fluctuated somewhat and has been as high as 29; the average for these years may be taken as 16 - 18 workers. The present labour force of 16 workers is adequate, but not excessive, in spite of the nursery being virtually closed down.

Six new forest workers houses were built at Hemsted in 1950 and the housing position for workers may be considered as satisfactory.

Six of the workers have smallholdings, but they usually work in the forest more than the minimum time required of them.

## SILVICULTURE

### Preparation of Ground

The area suitable for planting at the time of acquisition would appear to have fallen into distinct categories.

1. The area which had carried a conifer crop which had recently been felled. The normal weed species were said to be beginning to come in and consequently there must have been little (if any) preparation of the ground on this area. It can be assumed that it is on this area that the strong invasion of heather took place after planting, with the resultant difficulty of establishment.

2. The area carrying coppice, (oak, hazel, birch, etc.) with standards, the majority of the standards having been felled at an earlier date. It is uncertain what age or height the coppice was at the time, but the indication is, that it was young, or had possibly just been cut. Here again the preparation of ground would appear to have been slight. The general impression is, that much of the planting during the first few years was on land recently cleared, so the preparation of the ground was not necessary. (Surprise was expressed in 1932 at the quantity of chestnut coppice growing in plantations of Douglas fir, Scots pine and European larch of P.27, 28, and 29).

In P.31 Compartment 26 a small wet area was experimentally planted with Sitka spruce using transplants on turves, seedlings on turves, and transplants on screefed patches. In the early years, growth was noted as good - the screefed patches being best. This was attributed to the fact that the screefing was more in the nature of soil cultivation. No difference is apparent at the present day.

The beech (P.36 - P.40) was planted in an area carrying a fairly tall, coppice crop, mainly of birch, with a little chestnut, oak and alder. The coppice was thinned out to apparently two stems per stool and the beech underplanted.

### Choice of Species

Between F.Y. 26 - F.Y. 31 the main choice of species seemed to be Douglas fir and Sitka spruce with approximately twice as much Douglas fir as Sitka spruce being planted. Practically all the European larch (56 acres) in the area was also planted in this period, with the bulk of the planting (47 acres) in F.Y. 26 - F.Y. 28. A certain amount of Scots pine was planted - mainly in F.Y. 26.

Most of the Douglas fir planting was done in F.Y. 27 - F.Y. 29 and no planting of this species was done after F.Y. 31. The use of Sitka spruce also ceased in F.Y. 31 (apart from 12 acres after a fire F.Y. 35). The bulk of the Scots pine was planted in F.Y. 41 (after a fire), 177 acres out of a total of 287 acres, but this species has been more or less continuously planted in small areas from the earliest days.

The beech was planted between F.Y. 36 and F.Y. 40. Small areas of Japanese larch and Norway spruce have been planted of recent years.

Thus summing up, the choice of species from F.Y. 26 - 31 was mainly Douglas fir with Sitka spruce, some European larch and a little Scots pine. This exhausted most of the planting ground except for some birch coppice areas which were planted with beech (1936 - 1940). After the large fire of 1940, the unfortunate choice of Douglas fir and Sitka spruce of earlier days was not repeated and the burnt area was planted with Scots pine.

### Planting

With the earlier plantings the spacing would appear to be  $4\frac{1}{2}$  ft. x  $4\frac{1}{2}$  ft. for Scots pine and 5 ft. x 5 ft. for Douglas fir, Sitka spruce and European larch. The general spacing for beech would appear to be  $4\frac{1}{2}$  ft. x 3 ft. though in parts there are 3 rows of  $4\frac{1}{2}$  ft. x 3 ft. and then about 9 ft. before the next three rows of  $4\frac{1}{2}$  ft. x 3 ft. beech. The 9 ft. gap is probably where the cut material from the coppice thinning was laid.

The type of plant used for the earlier plantings was a 2+1 or a 2+2 i.e. almost invariably two years in the seed bed. It is recorded that a consignment of Scots pine ex Bramshill P. 35 was Tortrix-infected and necessitated a 50% beat up. Most of the planting of beech was with 1 yr. seedlings and was considered a success.

The precise method of planting is not known, but it is probably

correct to assume that it was the usual notch method. It is interesting to note that in 1936 dead plants were dug up in the older plantations and one of the contributing causes of death was considered to be bad planting.

The average rate of planting for the first three years was 76 acres per annum (P.26 - P.28). In F.Y.29 it was stepped up to 222 acres (137 acres of this was burnt in 1940). A large area, 127 acres, was also planted in F.Y.30, but 88 acres of this planting was also burnt in 1940. 43 acres were planted in F.Y.31. Between F.Y.31 - F.Y.40 an average of about 10 acres per annum was maintained. In F.Y.41 about 180 acres was planted (replant after fire) and in F.Y.42 about 30 acres (also after fire). Between F.Y.43 and 49 the acreage planted totalled only a little over 20 acres. No manuring of plantations was done.

The establishment of the earlier plantings of Douglas fir, Sitka spruce and European larch was a slow drawn out process. In fact some of the P.27 Douglas fir and Sitka spruce areas to this day cannot rightly be described as established. The reason for this would appear to be twofold. Firstly, the strong invasion of heather which took place, resulting in the Douglas fir and Sitka spruce "hanging fire" for years and making little growth. Secondly, the retention of competing coppice in young plantations which caused near suppression in many areas.

The Scots pine in most cases fairly quickly established itself - in particular the large acreage planted in F.Y.41 after the fire.

The beech plantings also seemed to "take" quickly, though it is possible that the top canopy was maintained a little too dense to ensure really quick establishment.

#### Beating Up

It would appear that a considerable expenditure has been involved in the beating up of plantations at Hemsted. (The latest being P.27 Douglas fir beaten up Corsican pine in F.Y.50). Most of the earlier conifer plantations required more than one beating up. In the early days Scots pine and Sitka spruce seemed to have been beaten up with the same species as originally planted, but Sitka spruce was used for beating up Douglas fir and European larch plantations, e.g. Compartment 23 P.27 Douglas fir and European larch was beaten up in F.Y.29 with Sitka spruce. In F.Y.35 Scots/<sup>pine</sup>

was being used to beat up the early planted Douglas fir areas in heather.

In 1937 and 1938 several acres of completely suppressed Douglas fir (P.27 - P.29) in heather was replanted with Scots pine which soon established itself (Compartments 17, 18 and 20).

In F.Y.44 a small area of the worst Douglas fir area in heather was treated as follows:  $\frac{1}{2}$  chain strips were cleaned alternating with  $\frac{1}{2}$  chain strips uncleaned. The cleaned strips were beaten up with Scots pine (virtually a re-plant) and the few surviving Douglas fir retained. These pines have established themselves quickly while the untreated strips have become more derelict.

In F.Y.50 two further attempts were made to deal with Douglas fir (P.27 - P.29) suppressed areas in heather. In Compartment 20 about 2 acres were bulldozed to pile the suppressed Douglas fir and heather in drifts, the area ploughed with an "R.L.R" and planted with Scots pine. In Compartment 22 at a spacing of 11 ft. patches 3 ft. x 3 ft. were cleared of heather and the foot square centre of the cleared patch was dug over and planted with Corsican pine.

The large area of Scots pine planted in F.Y.41, however, required no more than the normal amount of beating up.

#### Weeding

It is fairly evident that the degree of weeding practised in the early plantations is not the same as it is now. In heather areas little or no weeding was done. In the coppice areas, weeding was carried out, but the general trend was to let the coppice grow as long as possible, without endangering the planted trees (in Douglas fir, Scots pine and European larch). It is obvious that the planted trees were in fact endangered.

In F.Y.33 the problem of weeding the older areas was considered and it was decided that the aim should be only selective weeding, merely cutting back where the coppice was actually interfering.

Also in F.Y.33 it is stated that the men seem to be content to merely trim back coppice, and bramble shoots instead of cutting right back.

In 1936 there was considered to be ample evidence that the nursing of Scots pine, Corsican pine, the larches, Douglas fir and, to a lesser degree, Sitka spruce with coppice, delays, rather than hastens, establishment, and



that the weeding of conifers in the coppice areas must be much heavier than was at one time believed. The value of some of the older areas was considered to be permanently reduced by the presence of too much coppice.

The duration of weeding in the older areas would appear to have been about two years. As opposed to this, the large area of Scots pine replanted in 1941 after the fire, was weeded every year and by F.Y.45 only the worst patches needed to be done.

The main weed species that had to be dealt with ~~were~~ heather, bramble, coppice regrowth and bracken in a few isolated spots.

The reasons for this were due no doubt in the first case to the large areas planted annually coupled with lack of labour and secondly to the intensity of weeding generally which was too light.

#### Mixture of Species, Underplanting

About 13 acres were planted in 1928 (Compartment 1) with an alternate line mixture of European larch and ash. All the ash is suppressed or too etiolated to be of any use. Much of the European larch has also been suppressed by coppice regrowth.

There are also small plots (about one acre each) of Scots pine planted in mixture with beech and with ash (P.37). Both mixtures are doing reasonably well.

The underplanting of beech under a cover of mainly (P.36-P.40) birch has been successful. The top cover was possibly kept a little too dense for too long. Most of it has, however, now been removed or considerably thinned out, and most of the beech looks very promising.

#### Rates of Growth

Due to heather suppression and competition by coppice, height-growth of the same species is extremely variable on different areas. The extreme is Douglas fir and Sitka spruce (P.26 - P.29) in heather which is still only 3 ft.- 6 ft. in height. The table below gives heights of some of the better growing areas and in fact all the conifers listed have had their first thinning.

| Compt. | Species | P.Yr. | Age | Soil                           | a) Altitude<br>b) Aspect<br>c) Slope    | Mean Height of Dominants ft. | Mean Annual Height Increment in. |
|--------|---------|-------|-----|--------------------------------|---|------------------------------|----------------------------------|
| 35     | S.P.    | 32    | 18  | Clay loam over clay            | a) 300-340<br>b) N.W.<br>c) 1 in 10     | 29                           | 19                               |
| 25     | S.P.    | 26    | 24  | Loam over clay                 | a) 200<br>b) N - S.W.<br>c) Very slight | 31                           | 15                               |
| 29     | D.F.    | 27    | 23  | Loam over clay                 | a) 200-250<br>b) N.W.<br>c) Gentle      | 35                           | 18                               |
| 29     | E.L.    | 26    | 24  | Clay/Loam over Clay            | a) 200<br>b) E.<br>c) Gentle            | 36                           | 18                               |
| 28     | E.L.    | 34    | 17  | Loam over clay                 | a) 200<br>b) W.<br>c) Fairly steep      | 33                           | 23                               |
| 21     | Beech   | 37    | 14  | Sand over heavy clay (podsol). | a) 200<br>b) E.<br>c) S. Gentle         | 7                            | 6                                |
| 21     | Beech   | 37    | 14  | Good depth of loam over clay   | a) 200<br>b) E.<br>c) V.Gentle          | 16                           | 14                               |

#### Past Treatment of Established Plantations

##### Beech

The partial removal of the top cover was started in 1941 on a very small scale in Compartment 19, P.39, where the cover had been left too thick in the first place. Top cover was also thinned in Compartment 21, P.40 in 1943. Some more was done in 1947, but the bulk of the top cover was thinned or completely removed in 1948 - 1949. Work is now going on in the few small areas remaining to be done. In F.Y's 48-49 a thorough cleaning of the beech areas was done involving both coppice-cutting and removal of honeysuckle. Canopy is beginning to close in places now, but in other parts one more cleaning will probably be needed.

##### Conifers

Such was the long period over which the conifer plantations became established, it is difficult to draw the line between weeding and cleaning.

In F.Y's 36-40 mention is made of coppice weeding in the older plantations which by the age of the crop would tend to be more of a cleaning in parts. Certainly they are most unlikely to have been continuously weeded.

The Chairman, on seeing in F.Y.41 an area of Douglas fir suppressed by heather instructed that the maintenance of a canopy to suppress the heather should be the aim and that there should be no removal of natural species. This instruction was taken that there should be no cleaning of conifer crops at Hemsted. The matter was cleared up in F.Y.43 after a visit by the Assistant Commissioner, Mr. A.P. Long, when it was agreed that the better conifer areas should be taken in hand and cleaned. A certain amount of cleaning and brashing was done from then onwards, but due to serious labour shortage it was not until F.Y.48 that a really appreciable acreage of cleaning was done.

The following table sets out the position over the years. All types of cleaning are included, coppice cutting, honeysuckle removal, removal of the top cover over beech etc., in the gross annual cleaning figures.

| F.Y. | Cleaning | Brashing | Thinning  |
|------|----------|----------|-----------|
| 45   | 21 acres | 26 acres | Nil acres |
| 46   | 31 "     | 31 "     | 4 "       |
| 47   | 8 "      | 7 "      | 10 "      |
| 48   | 163 "    | 34 "     | 13 "      |
| 49   | 240 "    | 110 "    | 13 "      |
| 50   | 84 "     | 51 "     | 19 "      |
| 51   | 134 "    | 3 "      | 47 "      |

A certain amount of brashing has been carried out in heather areas where the crop has not fully closed canopy. This is regrettable as it is likely to delay vigorous growth.

There are a few areas in which the thinning has been a normal one for a conifer crop, but in many places it has been more of a cleaning - cum - thinning, involving mostly the removal of hardwood coppice regrowth.

The thinnings are converted to pulpwood which fortunately absorbs, besides the conifers, such hardwoods as chestnut, birch, alder and aspen -

the bulk of the hardwoods coming out as thinnings.

Thinnings were a few years late in starting, but due to the generally slow growth, the neglect has not been serious.

A Scots pine plantation (P.26, Compartment 27) thinned at the beginning of 1948 is about to be thinned again at the beginning of 1952. This will be the first area to receive a second thinning.

The chestnut coppice, comprising about 207 acres, is worked on a 15 year rotation resulting in an annual cut of 14 acres which is sold standing. The majority of the coppice in the chestnut Working Circle is of good quality, but there are a few inferior areas where the species does not justify retention and will be replaced by Scots pine.

### Conclusions

The choice of Douglas fir and Sitka spruce on the heather areas was not a good one. It is quite evident that there was a complete change of ground vegetation after the land was cleared, resulting in a strong invasion of dense heather. It is difficult at this stage to say whether the possibility of a change in ground vegetation should have been foreseen at the time of planting.

The realization that the best species for much of Hemsted was Scots pine was made in 1935 and the bulk of the planting after this date has been of this species.

Though the choice of Douglas fir was bad in the heather areas, it does not follow that it was so in the coppice areas. Here, it would seem, that a satisfactory crop could have been established if early tending operations had been carried out more thoroughly.

There is little doubt that there has been a serious neglect of weeding, cleaning and brashing in the past. Reasons for this are probably several. Firstly, a very large acreage was planted in the first few years with the resultant piling up of the weeding. Secondly, the shortage of labour during the war years, and at the same time the maintenance of a large nursery area leading to neglect of cleaning. Thirdly, the fear that cutting back of the coppice plantations would lead to exposure and an invasion of heather. From 1935 it was appreciated that Douglas fir, Scots pine, European larch and Sitka spruce would not tolerate close competition from coppice.

Rhododendron may yet hamper thinnings as much as heather affected establishment. This weed is spreading and as yet, no economical method of controlling it in plantations has been devised.

Drainage on the heavy clay sub-soil found at Hemsted is most important if the crops are to thrive. Much good work along these lines has been done of recent years, but a lot still remains to be done.

The planting of beech under top cover has proved to be sound though the canopy should have been opened up at an earlier stage.

The establishment of a crop at Hemsted has been a slow and difficult process, though at present, practically the whole of the area may be considered to be carrying a crop of one description or the other. Many of the conifer crops, during the intermediate stages, at any rate, will be mixed with hardwoods, due to the necessity of accepting natural coppice and maiden regrowth of oak, birch, alder, chestnut and aspen in gaps. The Scots pine would appear to be the one species which should turn out to be a really good crop.

#### Conservator's Comments

This has been a very difficult and expensive area but I think the major part of the forest is now showing signs of satisfactory development. The small areas of dense heather are expensive to cultivate but have been tackled and where the Douglas fir failed there are indications that pine will succeed.

R. H. Smith,

29.4.52.



## History of Hemsted Forest

### APPENDIX I

#### Notes from Inspection Reports

##### 23.7.32. Assistant Commissioner

Surprise was expressed at the amount of chestnut coppice in the planted areas. This coppice was to be allowed to grow as far as possible without endangering the planted trees.

P.27, 28, 29. Douglas fir appeared satisfactory except on the heather areas. On the bare areas bring in Scots pine.

P.28. Sitka spruce (Compartment 17) was growing well but it should be looked at for weeding as soon as possible.

##### 14.1.33. Chairman

A fair amount of weeding will be necessary but the coppice must not be cut back too severely as Douglas requires shelter; it is different, however, with the patches of broom - the shade is too heavy in places. The beneficial effect of the broom on the soil and the consequent improvement in the Douglas near broom was observed.

P.28. Sitka spruce. The crop is established but the growth is by no means rapid. The ash and chestnut coppice must be watched, the chestnut coppice should be cut right back.

Hemsted was considered to be generally disappointing but it was realised that it is now probably at its worst stage. The soil was apparently impoverished after successive coppice crops and the general vegetation changed entirely on exposure. Chestnut coppice must be cut right back owing to its rapid growth and spreading nature.

One good cut back is more permanent and cheaper in the long run.

##### 21.3.35. Chairman

###### Compartments 21 and 31 Unplanted and unfenced area

At present a considerable part of this area is unproductive. This part, therefore, should be planted up. The coppice should in no case be cleared entirely. The best way would be to treat the area in groups or

patches, for example, the block of larger birch coppice is now ready for treatment. The poles should be thinned to about two per stool. They could then be underplanted with a suitable species.

Compartment 22

P.27. Douglas Fir

Where there is coppice, weeding is now necessary.

Compartments 20 and 17

P.28. Douglas Fir

The Chairman noticed a great improvement in this crop since his last inspection two years ago. Where there is coppice a careful watch will have to be kept. The soil is of a very poor type and it is now obvious that Scots pine would have been a more suitable species. At present the Douglas have not got the lead in the heather, but in time they should get away and make a good plantation. The trees appear to be healthy enough once they do get started. The Chairman thought that the heather would die out in time; he considered that a mixture of Scots pine and Douglas fir would have done well. The Scots would have got away and nursed the Douglas. This was evidenced by a few natural Scots pines among the Douglas.

Compartment 11

P.30. Douglas fir

This crop had been weeded during the first two years only and it is now apparent how the Douglas had responded to the shelter of the coppice. Weeding is now necessary but this should be regulated to suit the requirements of each tree. As a general rule all Chestnut coppice should be cut hard back while Oak coppice should be left where possible and only cut to actually free Douglas leaders. Birch coppice should not be allowed to whip.

The Chairman said that he noticed a great improvement in the Hemsted plantations generally, and he advised the Forester to have great patience.

10.5.41. Chairman

Compartment 29 Douglas fir P.27 was inspected this being representative of the Douglas fir plantations at Hemsted. The badly checked condition of the majority of the trees in the strong heather in contrast to the improved appearance of an occasional group occurring in small bracken patches was noted.

The fact that equally bad plantations of the species had been known to make good eventually, was observed and the closing up of the canopy to the killing off of the heather was essential. To this end no further removal of natural species occurring in the plantations was to be done. They should be left to close up naturally. Staking blown trees was to be discontinued.

The Scots pine replanted was the right species but it was considered that Norway spruce might have been more suitable in the occasional moist hollows. This species to be introduced when beating up.

#### 10.6.49. Chairman

##### Conservator's Observations

The general treatment decided upon for those areas where the Douglas or Sitka is being suppressed is to treat them by a group method.

The compartments to be raked approximately every 50 feet and groups of Conifer to be encouraged to be marked down.

In such Conifer groups all growth interfering with the Conifer to be cut back. The cutting need not be at ground level provided that higher cutting will not endanger any Conifer becoming again overgrown. After relieving the groups of Conifer which are being retained the balance of the area to be cleaned with a view to obtaining a final hardwood crop. Oak in all cases to be given the preference where there is sufficient to form a final crop. Where oak is lacking order of preference Ash - Birch other hardwoods.

A. L. Felton.

10/6/49.

##### Chairman's Comments

###### Hemsted

The plantations as a whole were better than I had expected to find them.

The war-neglected areas of Sitka spruce/Oak etc. can be so treated as to yield satisfactory crops, but a great deal of money can be wasted on unnecessary work unless the treatment outlined in Mr. Burton's report is carefully developed and supervised.

The growth of Scots pine in height, form and freedom from disease (tortrix) is as good as I have seen anywhere.

History of Hemsted Forest

APPENDIX II

Supervision

Conservator (Divisional Officer)

|   |             |                 |
|---|-------------|-----------------|
| " | 1927 - 1939 | Mr. A.L. Felton |
| " | 1939 - 1947 | Mr. F.C. Best   |
| " | 1947 - 1949 | Mr. A.L. Felton |
| " | 1949 -      | Mr. R.H. Smith  |

Divisional Officers

|  |             |                |
|--|-------------|----------------|
|  | 1947 - 1948 | Mr. R.H. Smith |
|  | 1948 -      | Mr. J.M. Ross  |

District Officers

|  |             |                  |
|--|-------------|------------------|
|  | 1930 - 1932 | Mr. R.E. Fossey  |
|  | 1932 - 1935 | Mr. Sanzen-Baker |
|  | 1935 - 1939 | Mr. Muir         |
|  | 1941 - 1943 | Mr. Adams        |
|  | 1943 - 1946 | Mr. Peace        |
|  | 1946 - 1948 | Mr. Hillman      |
|  | 1948 - 1951 | Mr. Burton       |
|  | 1951 -      | Mr. Mithen       |

Foresters

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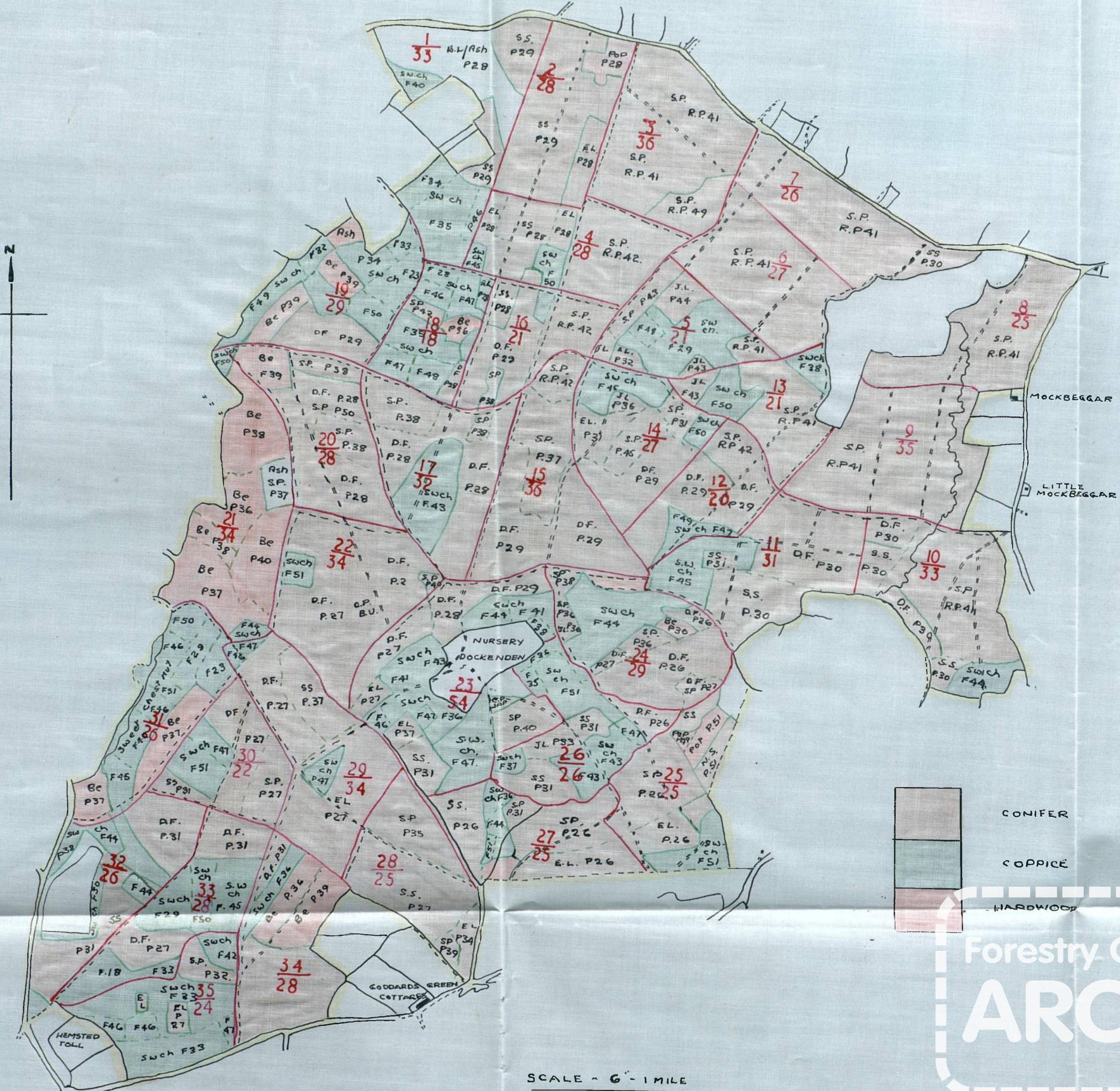
|               |
|---------------|
| Mr. Hinds     |
| Mr. Nelmes    |
| Mr. Middleton |
| Mr. Marston   |
| Mr. Hart      |



Hemsted



# HEMSTED



|  |          |
|--|----------|
|  | CONIFER  |
|  | COPPICE  |
|  | HARDWOOD |

SCALE - 6" = 1 MILE

Forestry Commission  
**ARCHIVE**  
LIBRARY  
I.F.No.  
907. (4/10.016)  
H.M. Forestry Commission



LIBRARY

I.F.No:

902 (40.86)

H.M. Forestry Commission



C.22 & 23.  
Fire Rides. Looking  
from S.W. to N.E.

C.22 & 23.  
Fire Rides. Looking from S.W. to N.E.

LIBRARY

I.F.No:

H.M. Forestry Commission



C.6. P.41 S.P.  
Replant of burnt area.

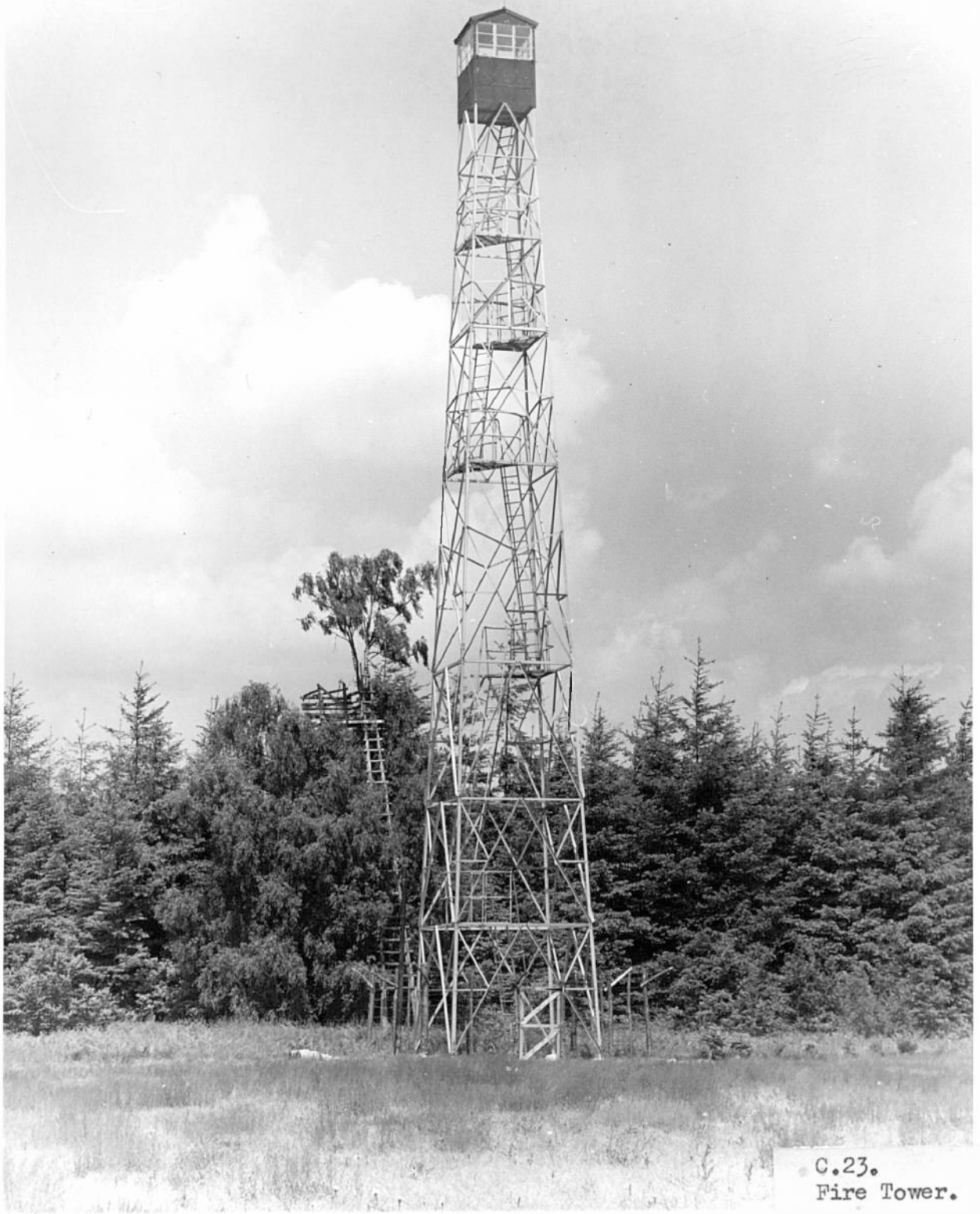
C.6. P.41 S.P. Replant of burnt area.

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HEMSTED FOREST HISTORY



C.23.  
Fire Tower.

C.23.  
Fire Tower.



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H.M. Forestry Commission



C.27. P.25.  
Best growing S.P.

C.27. P.25  
Best growing S.P.



LIBRARY

H.M. Forestry Commission



C.29. P.27 E.L.  
Very open crop with  
considerable competing  
coppice.

C.29. P.27 E.L.

Very open crop with considerable competing  
coppice.

LIBRARY

I.F.No.

H.M. forestry Commission



C.29. P.27 S.S.  
Recovery power of S.S.  
after a complete  
cleaning.

C.29. P.27 S.S.

Recovery power of S.S. after a complete cleaning.



LIBRARY

I.F.No:

H.M. Forestry Commission



C.23. P.31 S.S.  
Before being cleaned of competing coppice.

LIBRARY  
I.F.No:  
H.M. Forestry Commission



C.20. P.28 D.F.  
Heather suppressed area.  
S.P. replant P.50 after  
treatment with a Bulldozer  
and R.L.R. plough.

C.20. P.28. D.F. Heather suppressed area. S.P. replant P.50 after  
treatment with a Bulldozer and R.L.R. Plough.

LIBRARY

I.F.No:

H.M. Forestry Commission

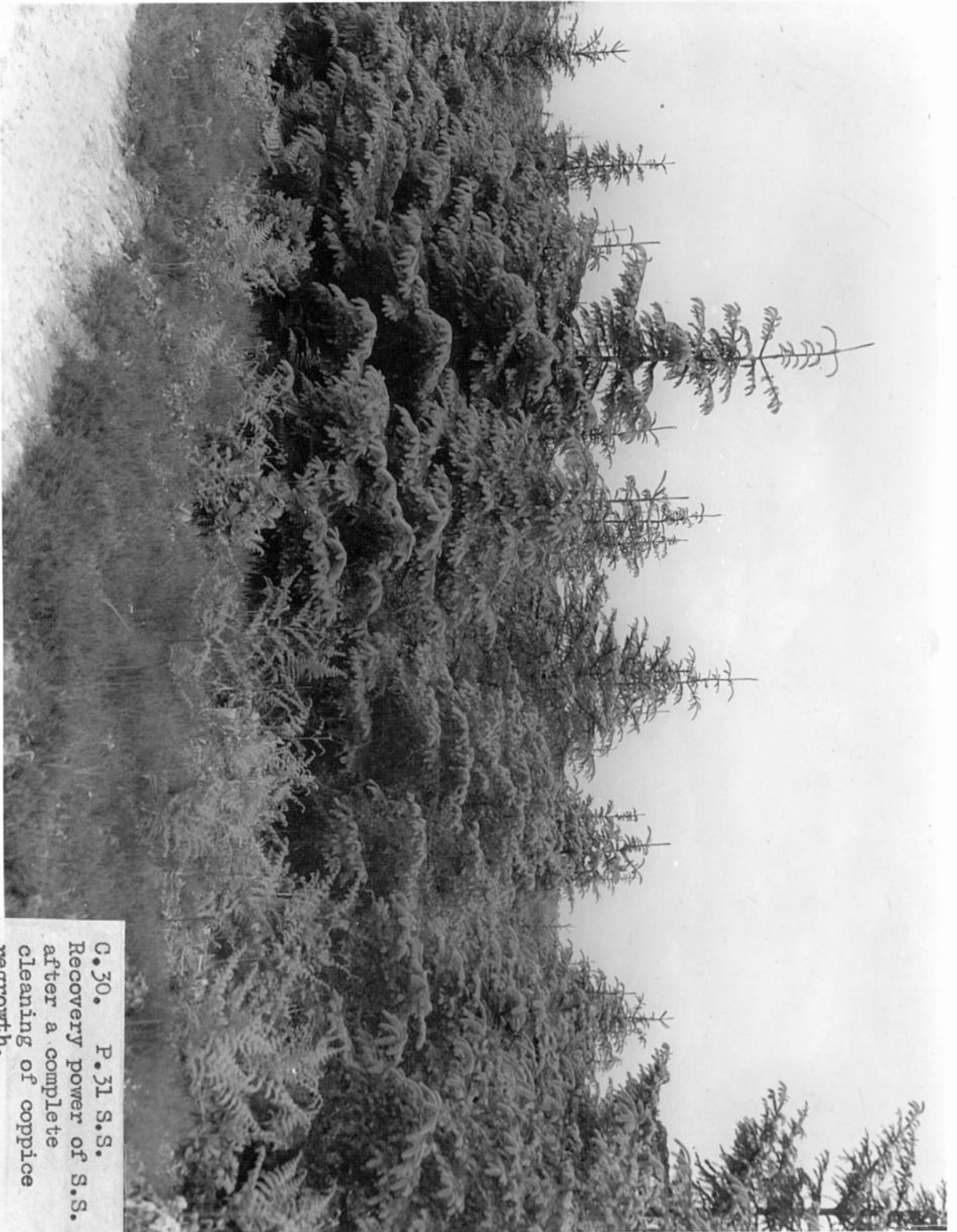


C. 32 & 33.  
Fire Rides. Looking  
from N.E. to S.W.

C. 32 and 33. Fire Rides. Looking from  
N.E. to S.W.



LIBRARY  
I.F.No:  
.....  
H.M. Forestry Commission



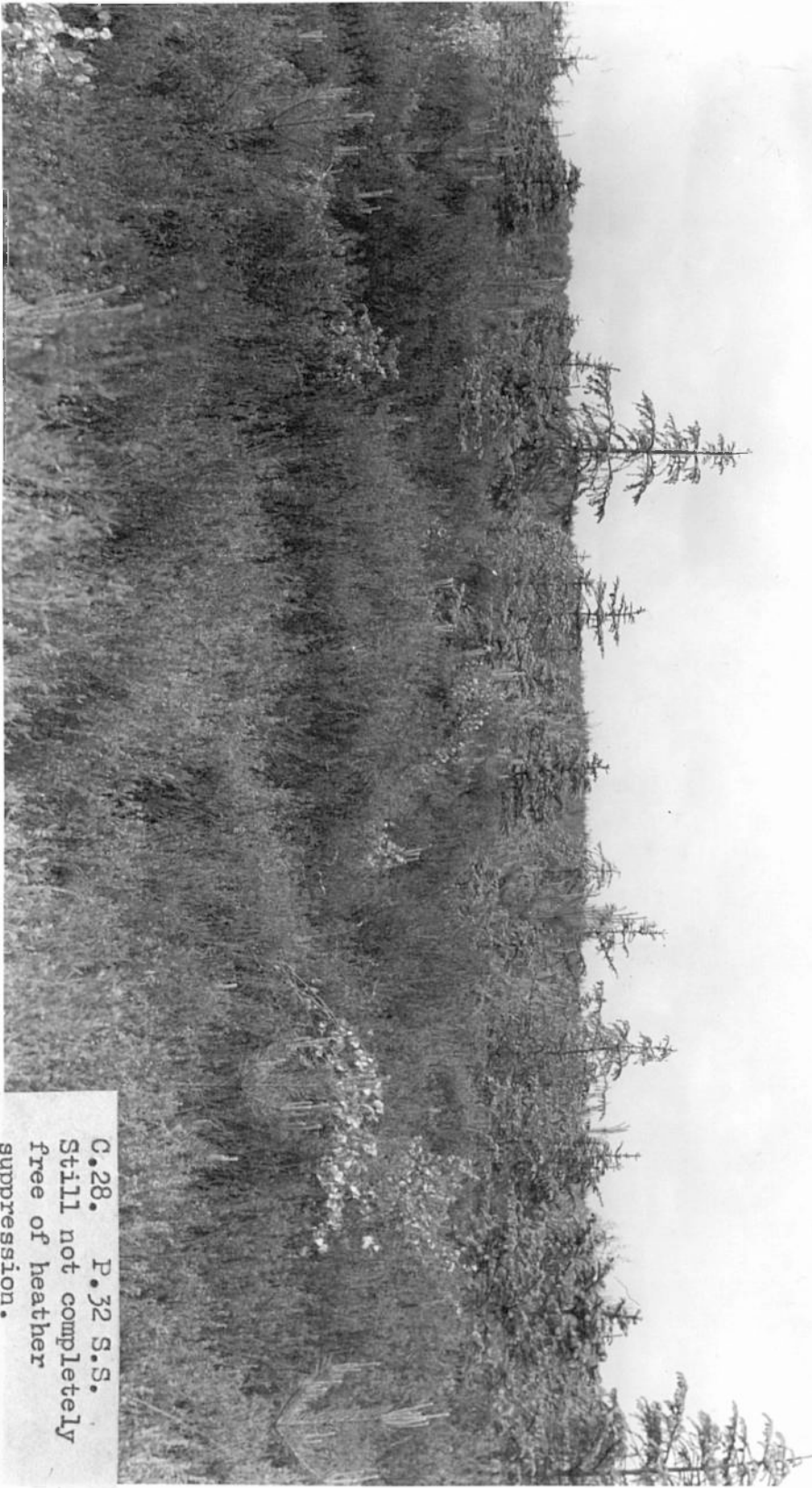
C.30. P.31 S.S.  
Recovery power of S.S.  
after a complete  
cleaning of coppice  
regrowth.

C.30. P.31. S.S. Recovery power of S.S. after a complete cleaning of  
coppice regrowth.

LIBRARY

I.F.No:

H.M. Forestry Commission



C.28. P.32 S.S.  
Still not completely  
free of heather  
suppression.

C.28. P.32 S.S.  
Still not completely free of heather suppression.

LIBRARY

I.F.No:

H.M. Forestry Commission



C.27. P.26 S.S.  
Best growing S.S.  
Showing girth.

C.27. P.26 S.S.  
Best growing S.S. showing girth.



LIBRARY

I.F.No:

H.M. Forestry Commission



C.22. P.27 D.F.  
Still not completely  
free of heather suppression.

C.22. P.27 D.F. Still not completely free of heather  
suppression.

LIBRARY

I.F.No:

H.M. Forestry Commission



C.21. P.40 Beech.  
Under top cover of  
Birch.

C.21. P.40. Beech. Under top cover of birch.



LIBRARY

I.F.No:

H.M. Forestry Commission



C.21. P.40 Beech.  
Almost closing canopy.

C.21. P.40 Beech. Almost closing canopy.

LIBRARY

I.F.No:

H.M. Forestry Commission



C. 30.  
Rhododendron encroach-  
ment into a S.P.  
plantation.

C. 30. Rhododendron encroachment into a S.P. plantation.



LIBRARY

I.F.No:

H.M. Forestry Commission



C. 34. P. 27.  
Best growing D.F.

C. 34. P. 27. Best Growing D.F..

LIBRARY

I.F.No:

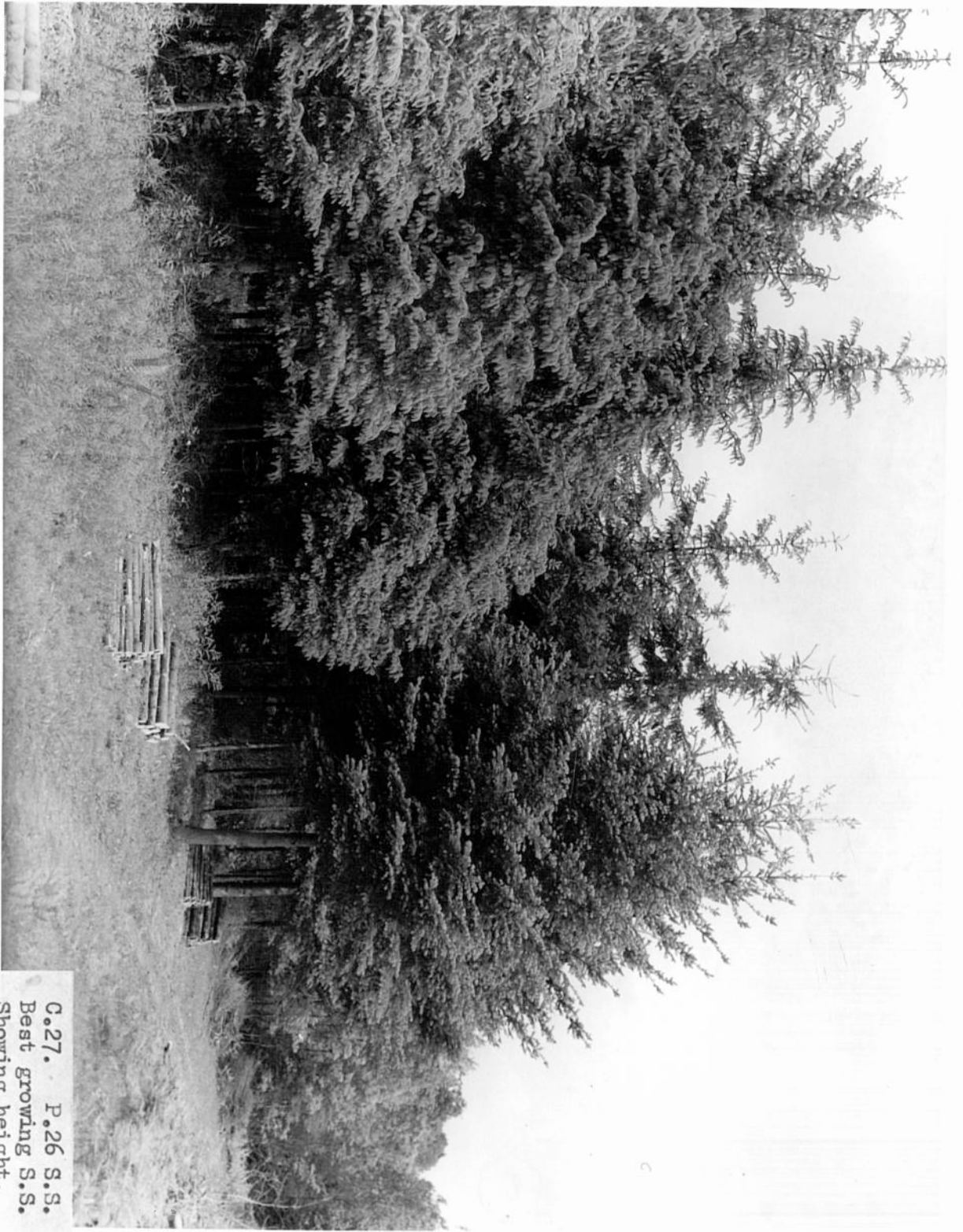
H.M. Forestry Commission



C.14. P.29 D.F.  
Heather suppressed area.  
C.P. B.U. In F.Y.50  
in 3 ft. square cleared  
patches.

C.14. P.29 D.F. Heather suppressed area. C.P. B.U. In F.Y.50  
in 3 ft. square cleared patches.

LIBRARY  
I.F.No:  
.....  
H.M. Forestry Commission



C.27. P.26 S.S.  
Best growing S.S.  
Showing height.

C.27. P.26 S.S.  
Best growing S.S. Showing height.



LIB. V  
I.F.No;

H.M. Forestry Commission



C.6. P.41 S.P.  
Replant of burnt area.

C.6. P.41 S.P. Replant of burnt area.



## HAMSTED FOREST

1

C.22 & 23.

Fire Rides. Looking from S.W. to N.E.

2

C.6. P.41 S.P

Replant of burnt area.

3

C.23.

Fire Tower.

4

C.27. P.25

Best growing S.P.

5

C.29. P.27 E.L.

Very open crop with considerable competing coppice.

6

C.29 P.27 S.S.

Recovery power of S.S. after complete cleaning

7

C.23. P.31 S.S.

Before being cleaned of competing coppice.

8

C.20 P.28 D.F.

Heather suppressed area. S.P. replant P.50 after treatment with a bulldozer and R.L.R Plough.

9

C.23 and 33

Fire Rides. Looking from N.E. to S.W.

10

C.30. P.31 S.S.

Recovery power of S.S. after a complete cleaning of coppice regrowth.

11

C.28. P.32 S.S.

Still not completely free of heather suppression

12

C.27. P.26 S.S.

Best growing S.S. showing girth.

13

C.22. P.27 D.F.

Still not completely free of heather suppression.

14

C.21. P.40 Beech.

Under top cover of Birch.

15

C.21. P.40 Beech.

Almost closing canopy.

16

C.30

Rhododendron encroachment into a S.P. plantation.

17

C.34 P.27.

Best growing D.F.

18

C.14 P.29 D.F.

Heather suppressed area.

C.P. B.U. in F.Y.50 in 3ft. square cleared patches.

19

C.27 P.26 S.S.

Best growing S.S. Showing height.

20

C.6. P.41 S.P.

Replant of burnt area