

Political (1896) Department.

ORDINARY MS.

G.O., No. 389

Dated 20 June 1896

INDEXED.

[Despatch Abstract.]

FACTORIES.

Communicating to the Resident in Travancore and Cochin proceedings
Judicial Department, forwarding to District Magistrates, &c., letter
from the Government of India stating that no action need be taken re-
garding the proposed introduction of belt-shifters in----

BACK PAPERS.

G.O.	No.	Department.	Date.	G.O.	No.	Department.	Date.

FURTHER PAPERS.

G.O.	No.	Department.	Date.	G.O.	No.	Department.	Date.
	937		1896				

No. ^{5.} 695-700.

FROM

J. P. HEWETT, ESQ., C.I.E.,
Secretary to the Government of India,

TO

Local Govt. & Admⁿ

Home Department.
Judicial.

Simla, the 14th May 1896.

SIR,

IN the circular letter from this Department No. ^{Judicial} 9720.729, dated the 6th May 1895, on the subject of accidents arising in Factories from the adjustment of belting on machinery while in motion, the Government of India commended the general adoption of the rules in force in the Bombay Presidency for regulating the adjustment of minor belts. They also suggested the use of belt-shifters and the desirability of framing rules for the regular examination of belting and for keeping it at proper tension.

2. A reference subsequently made to the Government of Bombay has, as will be seen from the papers,* copies of which are transmitted herewith, elicited an opinion adverse to the use of belt-shifters and to the utility of the proposed rules for the examination of belting. It is stated that belt-shifters have been tried and their use has been found more dangerous than the shifting of belts by hand under the precautions indicated in the rules referred to in paragraph 2 of the above mentioned circular. It is also represented that rules for the examination of belting would be inoperative. Mr. C. A. Walsh, Special Inspector of Factories, Bengal and the North-Western Provinces and Oudh, at whose instance the use of belt-shifters was first suggested, has now reported that they have not proved as efficient as was anticipated for the purpose of replacing large belts. Under these circumstances it does not appear desirable to insist on their use, and I am to say that no action need be taken on that portion of paragraph 3 of the circular of the 6th May 1895, which related to their introduction.

3. As regards the question of framing rules for the regular examination of belting, I am to invite a perusal of the correspondence now forwarded and to say that the Government of India leave it to frame any such rules or not as may, having regard to the experience which

2
may have been gained in this matter in
seem best to

I have the honour to be,

SIR,

Your most obedient servant,

J. P. HEWETT,

Secretary to the Government of India.

No.

COPY, with copy of the papers referred to in paragraph 2, forwarded to the Chief Commissioner of Coorg for information, in continuation of endorsement No. 9-734, dated the 6th May 1895.

No.

COPY, with copy of the papers mentioned in paragraph 2, forwarded to the Foreign Department, with reference to the endorsement from this Department No. 9-732, dated the 6th May 1895, for information and further necessary action.

By order,

C. H. A. HILL,

Under Secretary to the Government of India.

No. 6240, dated Nagpur, the 15th August 1895.

From—A. L. SAUNDERS, Esq., I.C.S., Officiating Chief Secretary to the Chief Commissioner of the Central Provinces,

To—The Secretary to the Government of India, Home Department.

I AM directed to acknowledge the receipt of your letter No. 9-Judicial—728, dated the 6th May last, stating that the following rules for preventing accidents arising from the adjustment of belting on machinery while in motion, which are in force in the Bombay Presidency, will, if generally adopted, tend materially to reduce the risk of accidents in adjusting minor belts, and requesting that instructions may be issued to secure their observation in the Factories in the Central Provinces:—

- (1) the workman who goes up to replace a belt should wear nothing but his loin cloth or tight trowsers;
- (2) all ladders used in replacing belts should be specially made and preserved for that work and provided with hooks and spurs;
- (3) as far as possible all important pulleys should be provided with belt hangers; and
- (4) only experienced men, such as jobbers or mukaddams, should be allowed to replace the belt on quick-moving pulleys.

2. In reply I am to report, for the information of the Government of India, that the Chief Commissioner has adopted the above rules. With regard, however, to paragraph 3 of your letter in which it is suggested that these rules may be supplemented by others insisting on the necessity for having the belting regularly examined and for seeing that it is kept at proper tension and for the use of belt shifters, I am to say that the Chief Commissioner addressed to the Government of Bombay a request for a copy of any rules that Government might have made to the end in view. That Government replies that it has not adopted the supplementary rule suggested and forwards a report by its Presidency Inspector deprecating any such rules on the ground that the examination of belting in respect of strength and tension is inconvenient and of no utility, and that belt shifters are dangerous.

3. Inasmuch as the first four rules, referred to in paragraph 1, were adopted from Bombay experience and as the Special Inspector for Factories in the Central Provinces is a Bombay official, who would follow the rules of that Presidency, the Chief Commissioner proposes to accept the views of that Government and dispense with the supplementary rules. I am to ask if the Government of India have any objection to this.

No. 1370, dated Simla, the 17th September 1895.

From—L. M. THORNTON, Esq., Deputy Secretary to the Government of India, Home Department,

To—The Chief Secretary to the Government of Bombay.

I AM directed to invite attention to paragraph 3 of this office circular letter Nos. 9-724—729, dated the 6th May last (copy of which was forwarded to you with endorsement No. 730 of the same date) in which it was suggested that the rules for preventing accidents arising from the adjustment of belts while machinery is in motion, might be supplemented by others insisting on the necessity of having the belting regularly examined and for seeing that it is kept at proper tension, and for the use of belt shifters.

2. I am to state that it has been reported by the Chief Commissioner of the Central Provinces that, on a reference to the Government of Bombay, it has been ascertained that no supplementary rules have been adopted in the Bombay Presidency, and that the Presidency Inspector, copy of whose report was forwarded to the Chief Commissioner, deprecated the introduction of any such rules on the

ground that the examination of belting was inconvenient and of no utility and that belt shifters were dangerous. I am now directed to forward, for the information of His Excellency the Governor in Council, copies of the marginally noted letters from Mr. C. A. Walsh, Special Inspector of Factories for Bengal and the North-Western Provinces and Oudh, on the subject, and to request that the Government of India may be informed on what grounds the Government of Bombay object to the proposals contained in this Department letter of the 6th May last.

No. 102, dated 25th August 1894, with diagrams referred to.
No. 115, dated 31st August 1894, with diagrams referred to.

No. 3, dated Bombay Castle, the 2nd January 1896.

From—J. DEC. ATKINS, Esq., I.C.S., Junior Secretary to the Government of Bombay, General Department,

To—The Secretary to the Government of India, Home Department.

I AM directed to acknowledge the receipt of Mr. Deputy Secretary Thornton's letter No. 1370, dated 17th September 1895, enquiring on what grounds the Government of Bombay object to the suggestion made by the Government of India in their circular letter No. 9-724-729, dated 6th May 1895, that the rules for preventing accidents arising from the adjustment of belts while machinery is in motion might be supplemented by others, insisting on the necessity of having the belting regularly examined, and for seeing that it is kept at proper tension and for the use of belt-shifters.

2. In reply I am directed to forward herewith copy of a letter from the Collector of Land Revenue, Customs and Opium, Bombay, No. F.I.—343, dated 21st November 1895, and to state that His Excellency the Governor in Council agrees in the views expressed by Mr. Campbell.

3. A copy of the letter No. F.I.—82, dated 31st August 1894, referred to in paragraph 5 of Mr. Campbell's letter dated 21st November 1895, was forwarded to the Government of India with the letter from this Government, No. 570, dated 11th February 1895.

No. F.I.—343, dated the 21st November 1895.

From—J. M. CAMPBELL, Esq., Collector of Land Revenue, Customs and Opium, Bombay,

To—The Secretary to the Government of Bombay, General Department.

I have the honour to return herewith the papers received under Government endorsement No. 4063, dated October 3rd last, on the subject of replacing belts in Factories, and to report as follows.

2. Mr. C. A. Walsh, Special Inspector of Factories in the North-West, appears to be in favour of two measures for reducing the risk of accidents in replacing belts on moving pulleys. These are—

(1) the use of belt-shifters,

(2) the framing of a rule rendering the constant testing and inspection of belts compulsory,

I proceed to discuss both suggestions.

3. Belt-shifters or shippers have not been introduced in the Factories of this Presidency as they are apt to cause more accidents than they are intended to avert. The instrument was given a trial by the Bombay Mill Owners' Association in the year 1893. I am informed by the Secretary of the Association that the results were most unsatisfactory. He writes as follows:—

"So far from decreasing the danger to workmen, it was found that these machines increased it; and, so far as the Committee are aware, no desirable machine for the purpose has yet been invented."

This testimony, I venture to think, is very strong. The Bombay Mill Owners' Association have on many occasions shown proof of their readiness to consider and test by careful experiments any expedient suggested to them for protecting life and limb among factory hands. Their sweeping condemnation of belt-shifters should therefore carry weight, and I should be inclined to await some evidence of the shippers having been successfully used before taking steps to give them a fresh trial in Bombay. Mr. Alfred Shore, Presidency Factory Inspector, reports that—

"Belt-shifters have been found dangerous to the man putting on the belt and have been generally discarded in England for that reason. They were never introduced into the Bombay mills, and would be dangerous in the hands of native operatives, as great expertness is required in handling them when replacing belts."

Mr. Walsh in his remarks notes the fact that belt-shifters, where available, are for some unknown reason seldom used. In another place he attributes their disuse to the fact that at the time they are required, they are not to be found. It is possible that the true reason of the shifters lying idle is to be found in the fact that they have been found unsafe. It would at least, in my opinion, be advisable for Mr. Walsh to satisfy himself that such instruments can safely be used in this country before any action is taken on his suggestion that they should be generally introduced.

4. The second proposal for the regular examination of belting and for inspections directed towards securing that it is kept on proper tension seems also to present some difficulties. In reporting on this point in July last, I supplied to Government the following opinion of the Presidency Factory Inspector:—

"As for the Inspectors examining every belt in a mill for tension and strength, I think it would be unworkable and foreign to their duties. In fact it would be encroaching on the duties of mill-managers, who, as a rule, are the best judges as to tension and strength of the belts in their mills."

I agree with the Presidency Inspector, who is supported in his opinion by the Chief Inspector of Factories, Bombay, that it would not be practicable to impose on Factory Inspectors the duty of testing belting. The present staff of technical inspectors in this Presidency is not sufficient to permit of such additions being made to their duties. It is possible that the proposal contemplates the inspection being made by mill-managers themselves, who would perhaps be bound by a rule to examine their belting for tension and strength at certain intervals. I would venture to bring to notice the extreme difficulty of enforcing such a rule. If an accident occurred, it would invariably be contended that the examination had been conducted according to rule, and unless the mere fact of a break or slip of the belt were to be held to be proof that the examination had not been made according to rule, it is difficult to see what additional security for the testing of belts would be introduced by such a rule. It seems doubtful that the infringement of the rule could safely be assumed in such a manner.

I need scarcely add that any draft rule on this point which Mr. Walsh can frame would be given consideration in this Presidency. But I am at a loss to understand how it could be satisfactorily enforced.

5. In my letter No. F.I.—82, dated 31st August 1894, I had the honour of laying before Government an account of the measures which have been taken by the Chief Inspector of Factories, Bombay, to minimise the risks of accidents in the replacing of belts. In inviting a reference to that communication, I have also the honour to draw attention to paragraph 26 of my Report on the working of the Factory Act during the year 1893, and to paragraph 21 of the Chief Inspector's Report attached to my Report for the year 1894. It will be seen that since the introduction of these special measures there has only been one serious accident due to the replacing of belting. In the case in question the operative was repairing a belt from the top of a machine. The belt caught the shafting and commenced to revolve and the man failing to release his hold of the belt was drawn up and painfully mutilated. It will be seen in this case that the accident was the result of the man's own carelessness in failing to let go his hold of the belt. That this has been the only accident with serious results during the last two or three years is, I venture to think, a strong indication that the precautionary rules at present in force in this Presidency are adequate and successful.

No. 181, dated Calcutta, the 30th January 1896.

From—C. H. A. HILL, Esq., Under Secretary to the Government of India, Home Department,

To—The Secretary to the Government of Bengal, General Department.

WITH reference to the correspondence ending with the letter from this Department, No. ^{9-Judicial} 723, dated the 6th May 1895, on the subject of accidents in Factories arising from the adjustment of belting on machinery while in motion, I am directed to forward a copy of the papers noted in the margin, from which

Letter from the Government of Bombay, No. 3, dated the 2nd January 1896, and enclosure.

it will be seen that no supplementary rules of the kind suggested in paragraph 3 of the above-mentioned letter have been issued in the Bombay Presidency, insisting on the necessity of having the belting regularly examined, for seeing that belting is kept at proper tension, and insisting on the use of belt-shifters. The adoption of the last suggestion is deprecated on the ground that belt-shifters have already been tried in the Bombay Presidency, and their use has been found more dangerous than the shifting of belts by hand under the precautions laid down in the existing rules. The issue of rules for the examination of belting is considered undesirable because it is apprehended that, for reasons given in the correspondence forwarded by the Bombay Government, such rules would be inoperative.

2. As the use of belt-shifters was suggested by Mr. C. A. Walsh, Special Inspector of Factories, Bengal and the North-Western Provinces and Oudh, I am to say that the Government of India will be glad to be furnished with any remarks which he may desire to offer on the present communication from the Government of Bombay on the subject.

No. 1359, dated Calcutta, the 31st March 1896.

From—C. W. BOLTON, Esq., Secretary to the Government of Bengal, General (Miscellaneous) Department,

To—The Secretary to the Government of India, Home Department.

I AM directed to acknowledge the receipt of your letter No. 181, dated the 30th January 1896, and its enclosures, on the subject of accidents in Factories arising from the adjustment of belting on machinery while in motion.

2. The opinion of Mr. C. A. Walsh, the Special Inspector of Factories in Bengal and the North-Western Provinces, is desired on —

(1) The use of belt shifters.

(2) The framing of a rule rendering the constant testing and inspection of belts compulsory.

As regards belt-shifters I am to say that they did not prove to be as efficient for replacing large belts as Mr. Walsh had anticipated, and, therefore, no rule has been framed by this Government enforcing their use in Bengal. Mr. Walsh is, however, still of opinion that they are suitable for small light belts, and does not accept the view that they are apt to cause accidents. He believes that if the man whose duty it is to replace belts, practises regularly with the belt-shifters, he would become an expert in replacing all small belts, which are frequently the cause of fatal accidents.

3. With regard to the constant testing and inspection of belts the rule quoted on the margin has been adopted in this Province.

"Every occupier of a factory shall regularly examine the belts and see that they are kept at proper tension."

No objection has been taken to it in Bengal, but Mr. Walsh states that the words "proper tension"

have given rise to discussion in the North-Western Provinces, as it is impracticable to fix what the proper tension of a belt should be. The Lieutenant-Governor proposes to leave the rule as it stands. The regular examination of the belts is to be done by the Manager of the Factory, and not the Government Inspector, and it will rest with him to regulate the tension.

G. C. Press, Simla.—No. 230 H. D.—12-5-96.—358.

CURRENT No. 723

No. 1693 - J.A.

CHIEF SECRETARY
29. MAY. 1896
GOVERNMENT OF MADRAS

A copy of the foregoing is forwarded to the Government of Madras, in continuation of the enclosures from the Government of India in the Foreign Department No. 1840, dated the 7th June 1895, for information and communication where suitable or desirable, to the Darbars of Native States.

By order, &c.,

F. P. Chapman

Asst. Secy. to the Govt. of India.

FOREIGN DEPARTMENT,

SIMLA;

The 23rd May 1896.

Circular by the Government of India in the Home Department No. 195-700, dated the 14th May 1896 (with enclosures.)

With 2 spare copies.

G. C. Press, Simla.—No. 1053 F. D.—29-10-95.—400.

1896
Poll Dept.

Enclosure No. 1

To
723

Poll:

Ann

The Govt. of India

Foreign Dept

N^o 1693- I.A.

Dated 23rd May 1896

Recd } 29th May 1896
(By)

Encls: One

Subject:

Forwarding copy of H.D. letter

for regulating the adjustment of minor

belts on machinery in factories

80489/1staken out for 2340

Circ 576

Dated 6/6

a copy of the 1st order is
being commd to the P.D. Dept
with ref to 80.489 of 95. 80d

8/6

Have a plan

H.C. written to
to hurry up the
to 6/6/96
to recd (7/6)

Proof

13/6/96

No. 976, JUDICIAL, 6TH JUNE 1896.

GOVERNMENT OF MADRAS.

JUDICIAL DEPARTMENT.

READ—the following paper:—

From J. P. HEWETT, Esq., C.I.E., Secretary to the Government of India (Home Department—Judicial), to the Chief Secretary to the Government of Madras, dated Simla, the 14th May 1896, No. 5-Judicial—695.

In the circular letter from this Department No. 9-Judicial—724, dated the 6th May 1895, on the subject of accidents arising in factories from the adjustment of belting on machinery while in motion, the Government of India commended the general adoption of the rules in force in the Bombay Presidency for regulating the adjustment of minor belts. They also suggested the use of belt-shifters and the desirability of framing rules for the regular examination of belting and for keeping it at proper tension.

2. A reference subsequently made to the Government of Bombay has, as will be seen from the papers,* copies of which are transmitted herewith, elicited an opinion adverse to the use of belt-shifters and to the utility of the proposed rules for the examination of belting. It is stated that belt-shifters have been tried and their use has been found more dangerous than the shifting of belts by hand under the precautions indicated in the rules referred to in paragraph 2 of the above-mentioned circular. It is also represented that rules for the examination of belting would be inoperative. Mr. C. A. Walsh, Special Inspector of Factories, Bengal and the North-Western Provinces and Oudh, at whose instance the use of belt-shifters was first suggested, has now reported that they have not proved as efficient as was anticipated for the purpose of replacing large belts. Under these circumstances it does not appear desirable to insist on their use, and I am to say that no action need be taken on that portion of paragraph 3 of the circular of the 6th May 1895 which related to their introduction.

3. As regards the question of framing rules for the regular examination of belting, I am to invite a perusal of the correspondence now forwarded and to say that the Government of India leave it to the Government of Madras to frame any such rules or not as may, having regard to the experience which may have been gained in this matter in the Madras Presidency, seem best to His Excellency in Council.

ENCLOSURES.

From A. L. SAUNDERS, Esq., I.C.S., Officiating Chief Secretary to the Chief Commissioner of the Central Provinces, to the Secretary to the Government of India, Home Department, No. 6240, dated Nagpur, the 15th August 1895.

I am directed to acknowledge the receipt of your letter No. 9-Judicial—728, dated the 6th May last, stating that the following rules for preventing accidents arising from the adjustment of

belting on machinery while in motion, which are in force in the Bombay Presidency, will, if generally adopted, tend materially to reduce the risk of accidents in adjusting minor belts, and requesting that instructions may be issued to secure their observation in the factories in the Central Provinces:—

- (1) the workman who goes up to replace a belt should wear nothing but his loin cloth or tight trousers;
- (2) all ladders used in replacing belts should be specially made and preserved for that work and provided with hooks and spurs;
- (3) as far as possible all important pulleys should be provided with belt hangers; and
- (4) only experienced men, such as jobbers or mukaddams, should be allowed to replace the belt on quick-moving pulleys.

2. In reply I am to report, for the information of the Government of India, that the Chief Commissioner has adopted the above rules. With regard, however, to paragraph 3 of your letter in which it is suggested that these rules may be supplemented by others insisting on the necessity for having the belting regularly examined and for seeing that it is kept at proper tension and for the use of belt-shifters, I am to say that the Chief Commissioner addressed to the Government of Bombay a request for a copy of any rules that Government might have made to the end in view. That Government replies that it has not adopted the supplementary rule suggested and forwards a report by its Presidency Inspector deprecating any such rules on the ground that the examination of belting in respect of strength and tension is inconvenient and of no utility, and that belt-shifters are dangerous.

3. Inasmuch as the first four rules, referred to in paragraph 1, were adopted from Bombay experience and as the Special Inspector for Factories in the Central Provinces is a Bombay official, who would follow the rules of that Presidency, the Chief Commissioner proposes to accept the views of that Government and dispense with the supplementary rules. I am to ask if the Government of India have any objection to this.

From L. M. THORNTON, Esq., Deputy Secretary to the Government of India, Home Department, to the Chief Secretary to the Government of Bombay, No. 1370, dated Simla, the 17th September 1895.

I am directed to invite attention to paragraph 3 of this office circular letter No. 9-724-729, dated the 6th May last (copy of which was forwarded to you with endorsement No. 730 of the same date), in which it was suggested that the rules for preventing accidents arising from the adjustment of belts while machinery is in motion, might be supplemented by others insisting on the necessity of having the belting regularly examined and for seeing that it is kept at proper tension, and for the use of belt-shifters.

2. I am to state that it has been reported by the Chief Commissioner of the Central Provinces that, on a reference to the Government of Bombay, it has been ascertained that no supplementary rules have been adopted in the Bombay Presidency, and that the Presidency Inspector, copy of whose report was forwarded to the Chief Commissioner, deprecated the introduction of any such rules on the ground that the examination of belting was inconvenient and of no utility and that belt-shifters were dangerous.

No. 102, dated 25th Aug. 1894, with diagrams referred to.
" 115 " 31st " " " " "

I am now directed to forward, for the information of His Excellency the Governor in Council, copies of the marginally-noted letters from Mr. C. A. Walsh, Special Inspector of Factories for Bengal and the North-Western Provinces and Oudh, on the subject, and to request that the Government of India may be informed on what grounds the Government of Bombay object to the proposals contained in this department letter of the 6th May last.

From J. DeC. ATKINS, Esq., I.C.S., Junior Secretary to the Government of Bombay, General Department, to the Secretary to the Government of India, Home Department, No. 3, dated Bombay Castle, the 2nd January 1896.

I am directed to acknowledge the receipt of Mr. Deputy Secretary Thornton's letter, No. 1370, dated 17th September 1895, enquiring on what grounds the Government of Bombay object to the suggestion made by the Government of India in their circular letter No. 9-724-729, dated 6th May 1895, that the rules for preventing accidents arising from the adjustment of belts, while machinery is in motion, might be supplemented by others, insisting on the necessity of having the belting regularly examined, and for seeing that it is kept at proper tension and for the use of belt-shifters.

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From J. M. CAMPBELL, Esq., Collector of Land Revenue, Customs and Opium, Bombay, to the Secretary to the Government of Bombay, General Department, No. F.I.—343, dated the 21st November 1895.

I have the honour to return herewith the papers received under Government endorsement No. 4063, dated 3rd October last, on the subject of replacing belts in factories, and to report as follows.

2. Mr. C. A. Walsh, Special Inspector of Factories in the North-West, appears to be in favour of two measures for reducing the risk of accidents in replacing belts on moving pulleys. These are—

- (1) the use of belt-shifters,
- (2) the framing of a rule rendering the constant testing and inspection of belts compulsory.

I proceed to discuss both suggestions.

3. Belt-shifters or shippers have not been introduced in the factories of this Presidency as they are apt to cause more accidents than they are intended to avert. The instrument was given a trial by the Bombay Mill Owners' Association in the year 1893. I am informed by the Secretary of the Association that the results were most unsatisfactory. He writes as follows:—

"So far from decreasing the danger to workmen, it was found that these machines increased it; and, so far as the committee are aware, no desirable machine for the purpose has yet been invented."

This testimony, I venture to think, is very strong. The Bombay Mill Owners' Association have on many occasions shown proof of their readiness to consider and test by careful experiments any expedient suggested to them for protecting life and limb among factory hands. Their sweeping condemnation of belt-shifters should therefore carry weight, and I should be inclined to await some evidence of the shippers having been successfully used before taking steps to give them a fresh trial in Bombay. Mr. Alfred Shore, Presidency Factory Inspector, reports that—

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4. The second proposal for the regular examination of belting and for inspections directed towards securing that it is kept on proper tension seems also to present some difficulties. In reporting on this point in July last, I supplied to Government the following opinion of the Presidency Factory Inspector:—

"As for the Inspectors examining every belt in a mill for tension and strength, I think it would be unworkable and foreign to their duties. In fact it would be encroaching on the duties of mill-managers, who, as a rule, are the best judges as to tension and strength of the belts in their mills."

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the mere fact of a break or slip of the belt were to be held to be proof that the examination had not been made according to rule, it is difficult to see what additional security for the testing of belts would be introduced by such a rule. It seems doubtful that the infringement of the rule could safely be assumed in such a manner.

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From C. H. A. HILL, Esq., Under Secretary to the Government of India, Home Department, to the Secretary to the Government of Bengal, General Department, No. 181, dated Calcutta, the 30th January 1896.

With reference to the correspondence ending with the letter from this department, No. 9-Judicial—725, dated the 6th May 1895, on the subject of accidents in factories arising from the adjustment of belting on machinery while in motion, I am directed to forward a copy of the letter from the Government of Bombay, No. 3, dated the 2nd January 1896, and enclosure. The papers noted in the margin, from which it will be seen that no supplementary rules of the kind suggested in paragraph 3 of the above-mentioned letter have been issued in the Bombay Presidency, insisting on the necessity of having the belting regularly examined, for seeing that belting is kept at proper tension, and insisting on the use of belt-shifters. The adoption of the last suggestion is deprecated on the ground that belt-shifters have already been tried in the Bombay Presidency, and their use has been found more dangerous than the shifting of belts by hand under the precautions laid down in the existing rules. The issue of rules for the examination of belting is considered undesirable because it is apprehended that, for reasons given in the correspondence forwarded by the Bombay Government, such rules would be inoperative.

2. As the use of belt-shifters was suggested by Mr. C. A. Walsh, Special Inspector of Factories, Bengal and the North-Western Provinces and Oudh, I am to say that the Government of India will be glad to be furnished with any remarks which he may desire to offer on the present communication from the Government of Bombay on the subject.

From C. W. BOLTON, Esq., Secretary to the Government of Bengal, General (Miscellaneous) Department, to the Secretary to the Government of India, Home Department, No. 1359, dated Calcutta, the 31st March 1896.

I am directed to acknowledge the receipt of your letter No. 181, dated the 30th January 1896, and its enclosures, on the subject of accidents in factories arising from the adjustment of belting on machinery while in motion.

2. The opinion of Mr. C. A. Walsh, the Special Inspector of Factories in Bengal and the North-Western Provinces, is desired on—

(1) the use of belt-shifters.

(2) the framing of a rule rendering the constant testing and inspection of belts compulsory.

As regards belt-shifters I am to say that they did not prove to be as efficient for replacing large belts as Mr. Walsh had anticipated, and, therefore, no rule has been framed by this Government enforcing their use in Bengal. Mr. Walsh is, however, still of opinion that they are

suitable for small light belts, and does not accept the view that they are apt to cause accidents. He believes that if the man whose duty it is to replace belts, practises regularly with the belt-shifters, he would become an expert in replacing all small belts, which are frequently the cause of fatal accidents.

3. With regard to the constant testing and inspection of belts the rule quoted on the margin has been adopted in this Province. No objection has been taken to it in Bengal, but Mr. Walsh states that the words "proper tension" have given rise to discussion in the North-Western Provinces, as it is impracticable to fix what the proper tension of a belt should be. The Lieutenant-Governor proposes to leave the rule as it stands. The regular examination of the belts is to be done by the manager of the factory, and not the Government Inspector, and it will rest with him to regulate the tension.

ORDER—No. 976, Judicial, dated 6th June 1896.

The foregoing letter from the Government of India, with its enclosures, will be communicated to all District Magistrates, the Commissioner of Police, Madras, and the Public Works Department, Railway Branch, in continuation of G.O., No. 1370, Judicial, dated 27th June 1895.

2. The Government does not at present propose to frame any rules for the periodical examination of belting referred to in paragraph 3 of the Government of India's letter.

(True Extract.)

For Chief Secretary.

To all District Magistrates.

„ the Commissioner of Police, Madras.

„ the Public Works Department, Railway Branch.

Copy to the Political Department,

with reference to G.O., No. 489, Political, dated 26th July 1895.

„ the Chairman, Madras Chamber of Commerce.

„ the Madras Trades' Association.

CURRENT No. 822

Poll.

Gobt. of {1896} Madras.

JUDICIAL.

489:26-7-95.
108-9:17-2-94. 1370:27-6-95 Judl.
862-3:16-12-93.
295-6:12-5-93.

S/

C. No 723 + 822

ORDER No. 389.8 20th June 1896.

Comm^d. to the

Reside. in Travancore & Cochin

in contr^o of G.O. No. 489 Pz

of 26-7-95

MD

19/6/96

CS
18.6.96

Lead in P.O.C. (C. No. 723 = A. 822
= Q
with &c. of C. No. 822)
Dated 29/6/96

Issued

Recd. 18/6/96
+ Rep

Encl.

G.O., No. 976, dated 6th June 1896.

JUNE.

Factories.

Communicating to District Magistrates, &c., letter from the Government of India stating that no action need be taken regarding the proposed introduction of belt-shifters in —, and leaving it to this Government to frame rules or not for the regular examination of belting in —.

2. Current.
WITH ORDER

No.

FROM

J. P. HEWETT, Esq., C.I.E.,

Secretary to the Government of India,

TO

Home Department.
Judicial.

Simla, the May 1896.

SIR,

IN the circular letter from this Department No. dated the 6th May 1895, on the subject of accidents arising in Factories from the adjustment of belting on machinery while in motion, the Government of India commended the general adoption of the rules in force in the Bombay Presidency for regulating the adjustment of minor belts. They also suggested the use of belt-shifters and the desirability of framing rules for the regular examination of belting and for keeping it at proper tension.

2. A reference subsequently made to the Government of Bombay has, as will

* Letter from the Chief Commissioner of the Central Provinces, No. 6240, dated the 15th August 1895.

Letter to the Government of Bombay, No. 1370, dated the 17th September 1895.

Letter from the Government of Bombay, No. 3, dated the 2nd January 1896, and enclosure.

Letter to the Government of Bengal, No. 181, dated the 30th January 1895.

Letter from the Government of Bengal, No. 1359, dated the 31st March 1896.

be seen from the papers,* copies of which are transmitted herewith, elicited an opinion adverse to the use of belt-shifters and to the utility of the proposed rules for the examination of belting. It is stated that belt-shifters have been tried and their use has been found more dangerous than the shifting of belts by hand under the precautions indicated in the rules referred to in paragraph 2 of the above mentioned circular. It is also represented that rules for the examination of belting would be inoperative. Mr. C. A. Walsh, Special Inspector of Factories, Bengal and the North-Western Provinces and Oudh, at whose instance the use of belt-shifters was first suggested, has now reported that they have not proved as efficient as was anticipated for the purpose of replacing large belts: Under these circumstances it does not appear desirable to insist on their use, and I am to say that no action need be taken on that portion of paragraph 3 of the circular of the 6th May 1895, which related to their introduction.

3. As regards the question of framing rules for the regular examination of belting, I am to invite a perusal of the correspondence now forwarded and to say that the Government of India leave it to to frame any such rules or not as may, having regard to the experience which

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J. P. HEWETT, Esq., C.I.E.,

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TO

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may have been gained in this matter in seem best to

I have the honour to be,

SIR,

Your most obedient servant,

J. P. HEWETT,

Secretary to the Government of India.

No.

COPY, with copy of the papers referred to in paragraph 2, forwarded to the Chief Commissioner of Coorg for information, in continuation of endorsement No. 9-734, dated the 6th May 1895.

No.

COPY, with copy of the papers mentioned in paragraph 2, forwarded to the Foreign Department, with reference to the endorsement from this Department No. 9-732, dated the 6th May 1895, for information and further necessary action.

By order,

C. H. A. HILL,

Under Secretary to the Government of India.

No. 6240, dated Nagpur, the 15th August 1895.

From—A. L. SAUNDERS, Esq., I.C.S., Officiating Chief Secretary to the Chief Commissioner of the Central Provinces,

To—The Secretary to the Government of India, Home Department.

I AM directed to acknowledge the receipt of your letter No. 9-Judicial—728, dated the 6th May last, stating that the following rules for preventing accidents arising from the adjustment of belting on machinery while in motion, which are in force in the Bombay Presidency, will, if generally adopted, tend materially to reduce the risk of accidents in adjusting minor belts, and requesting that instructions may be issued to secure their observation in the Factories in the Central Provinces:—

- (1) the workman who goes up to replace a belt should wear nothing but his loin cloth or tight trowsers;
- (2) all ladders used in replacing belts should be specially made and preserved for that work and provided with hooks and spurs;
- (3) as far as possible all important pulleys should be provided with belt hangers; and
- (4) only experienced men, such as jobbers or mukaddams, should be allowed to replace the belt on quick-moving pulleys.

2. In reply I am to report, for the information of the Government of India, that the Chief Commissioner has adopted the above rules. With regard, however, to paragraph 3 of your letter in which it is suggested that these rules may be supplemented by others insisting on the necessity for having the belting regularly examined and for seeing that it is kept at proper tension and for the use of belt shifters, I am to say that the Chief Commissioner addressed to the Government of Bombay a request for a copy of any rules that Government might have made to the end in view. That Government replies that it has not adopted the supplementary rule suggested and forwards a report by its Presidency Inspector deprecating any such rules on the ground that the examination of belting in respect of strength and tension is inconvenient and of no utility, and that belt shifters are dangerous.

3. Inasmuch as the first four rules, referred to in paragraph 1, were adopted from Bombay experience and as the Special Inspector for Factories in the Central Provinces is a Bombay official, who would follow the rules of that Presidency, the Chief Commissioner proposes to accept the views of that Government and dispense with the supplementary rules. I am to ask if the Government of India have any objection to this.

No. 1370, dated Simla, the 17th September 1895.

From—L. M. THORNTON, Esq., Deputy Secretary to the Government of India, Home Department,

To—The Chief Secretary to the Government of Bombay.

I AM directed to invite attention to paragraph 3 of this office circular letter Nos. 9-724—729, dated the 6th May last (copy of which was forwarded to you with endorsement No. 730 of the same date) in which it was suggested that the rules for preventing accidents arising from the adjustment of belts while machinery is in motion, might be supplemented by others insisting on the necessity of having the belting regularly examined and for seeing that it is kept at proper tension, and for the use of belt shifters.

2. I am to state that it has been reported by the Chief Commissioner of the Central Provinces that, on a reference to the Government of Bombay, it has been ascertained that no supplementary rules have been adopted in the Bombay Presidency, and that the Presidency Inspector, copy of whose report was forwarded to the Chief Commissioner, deprecated the introduction of any such rules on the

ground that the examination of belting was inconvenient and of no utility and that belt shifters were dangerous. I am now directed to forward, for the information of His Excellency the Governor in Council, copies of the marginally noted letters from Mr. C. A. Walsh, Special Inspector of Factories for Bengal and the North-Western Provinces and Oudh, on the subject, and to request that the Government of India may be informed on what grounds the Government of Bombay object to the proposals contained in this Department letter of the 6th May last.

No. 102, dated 25th August 1894, with diagrams referred to.
No. 115, dated 31st August 1894, with diagrams referred to.

No. 3, dated Bombay Castle, the 2nd January 1896.

From—J. DEC. ATKINS, Esq., I.C.S., Junior Secretary to the Government of Bombay, General Department,

To—The Secretary to the Government of India, Home Department.

I AM directed to acknowledge the receipt of Mr. Deputy Secretary Thornton's letter No. 1370, dated 17th September 1895, enquiring on what grounds the Government of Bombay object to the suggestion made by the Government of India in their circular letter No. 9-724-729, dated 6th May 1895, that the rules for preventing accidents arising from the adjustment of belts while machinery is in motion might be supplemented by others, insisting on the necessity of having the belting regularly examined, and for seeing that it is kept at proper tension and for the use of belt-shifters.

2. In reply I am directed to forward herewith copy of a letter from the Collector of Land Revenue, Customs and Opium, Bombay, No. F.I.—343, dated 21st November 1895, and to state that His Excellency the Governor in Council agrees in the views expressed by Mr. Campbell.

3. A copy of the letter No. F.I.—82, dated 31st August 1894, referred to in paragraph 5 of Mr. Campbell's letter dated 21st November 1895, was forwarded to the Government of India with the letter from this Government, No. 570, dated 11th February 1895.

No. F.I.—343, dated the 21st November 1895.

From—J. M. CAMPBELL, Esq., Collector of Land Revenue, Customs and Opium, Bombay,

To—The Secretary to the Government of Bombay, General Department.

I have the honour to return herewith the papers received under Government endorsement No. 4063, dated October 3rd last, on the subject of replacing belts in Factories, and to report as follows.

2. Mr. C. A. Walsh, Special Inspector of Factories in the North-West, appears to be in favour of two measures for reducing the risk of accidents in replacing belts on moving pulleys. These are—

(1) the use of belt-shifters,

(2) the framing of a rule rendering the constant testing and inspection of belts compulsory,

I proceed to discuss both suggestions.

3. Belt-shifters or shippers have not been introduced in the Factories of this Presidency as they are apt to cause more accidents than they are intended to avert. The instrument was given a trial by the Bombay Mill Owners' Association in the year 1893. I am informed by the Secretary of the Association that the results were most unsatisfactory. He writes as follows:—

"So far from decreasing the danger to workmen, it was found that these machines increased it; and, so far as the Committee are aware, no desirable machine for the purpose has yet been invented."

This testimony, I venture to think, is very strong. The Bombay Mill Owners' Association have on many occasions shown proof of their readiness to consider and test by careful experiments any expedient suggested to them for protecting life and limb among factory hands. Their sweeping condemnation of belt-shifters should therefore carry weight, and I should be inclined to await some evidence of the shippers having been successfully used before taking steps to give them a fresh trial in Bombay. Mr. Alfred Shore, Presidency Factory Inspector, reports that—

"Belt-shifters have been found dangerous to the man putting on the belt and have been generally discarded in England for that reason. They were never introduced into the Bombay mills, and would be dangerous in the hands of native operatives, as great expertness is required in handling them when replacing belts."

Mr. Walsh in his remarks notes the fact that belt-shifters, where available, are for some unknown reason seldom used. In another place he attributes their disuse to the fact that at the time they are required, they are not to be found. It is possible that the true reason of the shifters lying idle is to be found in the fact that they have been found unsafe. It would at least, in my opinion, be advisable for Mr. Walsh to satisfy himself that such instruments can safely be used in this country before any action is taken on his suggestion that they should be generally introduced.

4. The second proposal for the regular examination of belting and for inspections directed towards securing that it is kept on proper tension seems also to present some difficulties. In reporting on this point in July last, I supplied to Government the following opinion of the Presidency Factory Inspector:—

"As for the Inspectors examining every belt in a mill for tension and strength, I think it would be unworkable and foreign to their duties. In fact it would be encroaching on the duties of mill-managers, who, as a rule, are the best judges as to tension and strength of the belts in their mills."

I agree with the Presidency Inspector, who is supported in his opinion by the Chief Inspector of Factories, Bombay, that it would not be practicable to impose on Factory Inspectors the duty of testing belting. The present staff of technical inspectors in this Presidency is not sufficient to permit of such additions being made to their duties. It is possible that the proposal contemplates the inspection being made by mill-managers themselves, who would perhaps be bound by a rule to examine their belting for tension and strength at certain intervals. I would venture to bring to notice the extreme difficulty of enforcing such a rule. If an accident occurred, it would invariably be contended that the examination had been conducted according to rule, and unless the mere fact of a break or slip of the belt were to be held to be proof that the examination had not been made according to rule, it is difficult to see what additional security for the testing of belts would be introduced by such a rule. It seems doubtful that the infringement of the rule could safely be assumed in such a manner.

I need scarcely add that any draft rule on this point which Mr. Walsh can frame would be given consideration in this Presidency. But I am at a loss to understand how it could be satisfactorily enforced.

5. In my letter No. F.I.—82, dated 31st August 1894, I had the honour of laying before Government an account of the measures which have been taken by the Chief Inspector of Factories, Bombay, to minimise the risks of accidents in the replacing of belts. In inviting a reference to that communication, I have also the honour to draw attention to paragraph 26 of my Report on the working of the Factory Act during the year 1893, and to paragraph 21 of the Chief Inspector's Report attached to my Report for the year 1894. It will be seen that since the introduction of these special measures there has only been one serious accident due to the replacing of belting. In the case in question the operative was repairing a belt from the top of a machine. The belt caught the shafting and commenced to revolve and the man failing to release his hold of the belt was drawn up and painfully mutilated. It will be seen in this case that the accident was the result of the man's own carelessness in failing to let go his hold of the belt. That this has been the only accident with serious results during the last two or three years is, I venture to think, a strong indication that the precautionary rules at present in force in this Presidency are adequate and successful.

No. 181, dated Calcutta, the 30th January 1896.

From—C. H. A. HILL, Esq., Under Secretary to the Government of India, Home Department,

To—The Secretary to the Government of Bengal, General Department.

WITH reference to the correspondence ending with the letter from this Department, No. ^{9-Judicial} 735, dated the 6th May 1895, on the subject of accidents in Factories arising from the adjustment of belting on machinery while in motion, I am directed to forward a copy of the papers noted in the margin, from which it will be seen that no supplementary rules of the kind suggested in paragraph 3 of the above-mentioned letter have been issued in the Bombay Presidency, insisting on the necessity of having the belting regularly examined, for seeing that belting is kept at proper tension, and insisting on the use of belt-shifters. The adoption of the last suggestion is deprecated on the ground that belt-shifters have already been tried in the Bombay Presidency, and their use has been found more dangerous than the shifting of belts by hand under the precautions laid down in the existing rules. The issue of rules for the examination of belting is considered undesirable because it is apprehended that, for reasons given in the correspondence forwarded by the Bombay Government, such rules would be inoperative.

2. As the use of belt-shifters was suggested by Mr. C. A. Walsh, Special Inspector of Factories, Bengal and the North-Western Provinces and Oudh, I am to say that the Government of India will be glad to be furnished with any remarks which he may desire to offer on the present communication from the Government of Bombay on the subject.

No. 1359, dated Calcutta, the 31st March 1896.

From—C. W. BOLTON, Esq., Secretary to the Government of Bengal, General (Miscellaneous) Department,

To—The Secretary to the Government of India, Home Department.

I AM directed to acknowledge the receipt of your letter No. 181, dated the 30th January 1896, and its enclosures, on the subject of accidents in Factories arising from the adjustment of belting on machinery while in motion.

2. The opinion of Mr. C. A. Walsh, the Special Inspector of Factories in Bengal and the North-Western Provinces, is desired on—

(1) The use of belt shifters.

(2) The framing of a rule rendering the constant testing and inspection of belts compulsory.

As regards belt-shifters I am to say that they did not prove to be as efficient for replacing large belts as Mr. Walsh had anticipated, and, therefore, no rule has been framed by this Government enforcing their use in Bengal. Mr. Walsh is, however, still of opinion that they are suitable for small light belts, and does not accept the view that they are apt to cause accidents. He believes that, if the man whose duty it is to replace belts, practises regularly with the belt-shifters, he would become an expert in replacing all small belts, which are frequently the cause of fatal accidents.

3. With regard to the constant testing and inspection of belts the rule quoted

"Every occupier of a factory shall regularly examine the belts and see that they are kept at proper tension,"

on the margin has been adopted in this Province. No objection has been taken to it in Bengal, but Mr. Walsh states that the words "proper tension" have given rise to discussion in the North-Western Provinces, as it is impracticable to fix what the proper tension of a belt should be. The Lieutenant-Governor proposes to leave the rule as it stands. The regular examination of the belts is to be done by the Manager of the Factory, and not the Government Inspector, and it will rest with him to regulate the tension.

No.

FROM

J. P. HEWETT, Esq., C.I.E.,

Secretary to the Government of India,

TO

Home Department.
Judicial.

Simla, the May 1896.

SIR,

IN the circular letter from this Department No. dated the 6th May 1895, on the subject of accidents arising in Factories from the adjustment of belting on machinery while in motion, the Government of India commended the general adoption of the rules in force in the Bombay Presidency for regulating the adjustment of minor belts. They also suggested the use of belt-shifters and the desirability of framing rules for the regular examination of belting and for keeping it at proper tension.

2. A reference subsequently made to the Government of Bombay has, as will

* Letter from the Chief Commissioner of the Central Provinces, No. 6240, dated the 15th August 1895.

Letter to the Government of Bombay, No. 1370, dated the 17th September 1895.

Letter from the Government of Bombay, No. 3, dated the 2nd January 1896, and enclosure.

Letter to the Government of Bengal, No. 181, dated the 30th January 1896.

Letter from the Government of Bengal, No. 1359, dated the 31st March 1896.

be seen from the papers,* copies of which are transmitted herewith, elicited an opinion adverse to the use of belt-shifters and to the utility of the proposed rules for the examination of belting. It is stated that belt-shifters have been tried and their use has been found more dangerous than the shifting of belts by hand under the precautions indicated in the rules referred to in paragraph 2 of the above mentioned circular. It is also represented that rules for the examination of belting would be inoperative. Mr. C. A. Walsh, Special Inspector of Factories, Bengal and the North-Western Provinces and Oudh, at whose instance the use of belt-shifters was first suggested, has now reported that they have not proved as efficient as was anticipated for the purpose of replacing large belts. Under these circumstances it does not appear desirable to insist on their use, and I am to say that no action need be taken on that portion of paragraph 3 of the circular of the 6th May 1895, which related to their introduction.

3. As regards the question of framing rules for the regular examination of belting, I am to invite a perusal of the correspondence now forwarded and to say that the Government of India leave it to frame any such rules or not as may, having regard to the experience which

2
may have been gained in this matter in
seem best to

I have the honour to be,
SIR,
Your most obedient servant,
J. P. HEWETT,
Secretary to the Government of India.

No.

COPY, with copy of the papers referred to in paragraph 2, forwarded to the
Chief Commissioner of Coorg for information, in continuation of endorsement No.
9-734, dated the 6th May 1895.

No.

COPY, with copy of the papers mentioned in paragraph 2, forwarded to the
Foreign Department, with reference to the endorsement from this Department No.
9-732, dated the 6th May 1895, for information and further necessary action.

By order,
C. H. A. HILL,
Under Secretary to the Government of India.

No. 6240, dated Nagpur, the 15th August 1895.

From—A. L. SAUNDERS, Esq., I.C.S., Officiating Chief Secretary to the Chief
Commissioner of the Central Provinces,

To—The Secretary to the Government of India, Home Department.

I AM directed to acknowledge the receipt of your letter No. 9-Judicial—728,
dated the 6th May last, stating that the following rules for preventing accidents
arising from the adjustment of belting on machinery while in motion, which are
in force in the Bombay Presidency, will, if generally adopted, tend materially to
reduce the risk of accidents in adjusting minor belts, and requesting that instruc-
tions may be issued to secure their observation in the Factories in the Central
Provinces:—

- (1) the workman who goes up to replace a belt should wear nothing but
his loin cloth or tight trowsers;
- (2) all ladders used in replacing belts should be specially made and
preserved for that work and provided with hooks and spurs;
- (3) as far as possible all important pulleys should be provided with belt
hangers; and
- (4) only experienced men, such as jobbers or mukaddams, should be
allowed to replace the belt on quick-moving pulleys.

2. In reply I am to report, for the information of the Government of India,
that the Chief Commissioner has adopted the above rules. With regard, however,
to paragraph 3 of your letter in which it is suggested that these rules may be
supplemented by others insisting on the necessity for having the belting regularly
examined and for seeing that it is kept at proper tension and for the use of belt
shifters, I am to say that the Chief Commissioner addressed to the Government
of Bombay a request for a copy of any rules that Government might have made
to the end in view. That Government replies that it has not adopted the supple-
mentary rule suggested and forwards a report by its Presidency Inspector de-
precating any such rules on the ground that the examination of belting in respect
of strength and tension is inconvenient and of no utility, and that belt shifters
are dangerous.

3. Inasmuch as the first four rules, referred to in paragraph 1, were adopted
from Bombay experience and as the Special Inspector for Factories in the Central
Provinces is a Bombay official, who would follow the rules of that Presidency, the
Chief Commissioner proposes to accept the views of that Government and dis-
pense with the supplementary rules. I am to ask if the Government of India
have any objection to this.

No. 1370, dated Simla, the 17th September 1895.

From—L. M. THORNTON, Esq., Deputy Secretary to the Government of India,
Home Department,

To—The Chief Secretary to the Government of Bombay.

I AM directed to invite attention to paragraph 3 of this office circular letter
Nos. 9-724—729, dated the 6th May last (copy of which was forwarded to you
with endorsement No. 730 of the same date) in which it was suggested that the
rules for preventing accidents arising from the adjustment of belts while machinery
is in motion, might be supplemented by others insisting on the necessity of having
the belting regularly examined and for seeing that it is kept at proper tension,
and for the use of belt shifters.

2. I am to state that it has been reported by the Chief Commissioner of the
Central Provinces that, on a reference to the Government of Bombay, it has been
ascertained that no supplementary rules have been adopted in the Bombay Presi-
dency, and that the Presidency Inspector, copy of whose report was forwarded to
the Chief Commissioner, deprecated the introduction of any such rules on the

ground that the examination of belting was inconvenient and of no utility and that belt shifters were dangerous. I am now directed to forward, for the information of His Excellency the Governor in Council, copies of the marginally noted letters from Mr. C. A. Walsh, Special Inspector of Factories for Bengal and the North-Western Provinces and Oudh, on the subject, and to request that the Government of India may be informed on what grounds the Government of Bombay object to the proposals contained in this Department letter of the 6th May last.

No. 102, dated 25th August 1894, with diagrams referred to.
No. 115, dated 31st August 1894, with diagrams referred to.

No. 3, dated Bombay Castle, the 2nd January 1896.
From—J. DEC. ATKINS, Esq., I.C.S., Junior Secretary to the Government of Bombay, General Department,

To—The Secretary to the Government of India, Home Department.

I AM directed to acknowledge the receipt of Mr. Deputy Secretary Thornton's letter No. 1370, dated 17th September 1895, enquiring on what grounds the Government of Bombay object to the suggestion made by the Government of India in their circular letter No. 9-724-729, dated 6th May 1895, that the rules for preventing accidents arising from the adjustment of belts while machinery is in motion might be supplemented by others, insisting on the necessity of having the belting regularly examined, and for seeing that it is kept at proper tension and for the use of belt-shifters.

2. In reply I am directed to forward herewith copy of a letter from the Collector of Land Revenue, Customs and Opium, Bombay, No. F.I.—343, dated 21st November 1895, and to state that His Excellency the Governor in Council agrees in the views expressed by Mr. Campbell.

3. A copy of the letter No. F.I.—82, dated 31st August 1894, referred to in paragraph 5 of Mr. Campbell's letter dated 21st November 1895, was forwarded to the Government of India with the letter from this Government, No. 570, dated 11th February 1895.

No. F.I.—343, dated the 21st November 1895.
From—J. M. CAMPBELL, Esq., Collector of Land Revenue, Customs and Opium, Bombay,

To—The Secretary to the Government of Bombay, General Department.

I have the honour to return herewith the papers received under Government endorsement No. 4063, dated October 3rd last, on the subject of replacing belts in Factories, and to report as follows.

2. Mr. C. A. Walsh, Special Inspector of Factories in the North-West, appears to be in favour of two measures for reducing the risk of accidents in replacing belts on moving pulleys. These are—

(1) the use of belt-shifters,

(2) the framing of a rule rendering the constant testing and inspection of belts compulsory,

I proceed to discuss both suggestions.

3. Belt-shifters or shippers have not been introduced in the Factories of this Presidency as they are apt to cause more accidents than they are intended to avert. The instrument was given a trial by the Bombay Mill Owners' Association in the year 1893. I am informed by the Secretary of the Association that the results were most unsatisfactory. He writes as follows:—

"So far from decreasing the danger to workmen, it was found that these machines increased it; and, so far as the Committee are aware, no desirable machine for the purpose has yet been invented."

This testimony, I venture to think, is very strong. The Bombay Mill Owners' Association have on many occasions shown proof of their readiness to consider and test by careful experiments any expedient suggested to them for protecting life and limb among factory hands. Their sweeping condemnation of belt-shifters should therefore carry weight, and I should be inclined to await some evidence of the shippers having been successfully used before taking steps to give them a fresh trial in Bombay. Mr. Alfred Shore, Presidency Factory Inspector, reports that—

"Belt-shifters have been found dangerous to the man putting on the belt and have been generally discarded in England for that reason. They were never introduced into the Bombay mills, and would be dangerous in the hands of native operatives, as great expertness is required in handling them when replacing belts."

Mr. Walsh in his remarks notes the fact that belt-shifters, where available, are for some unknown reason seldom used. In another place he attributes their disuse to the fact that at the time they are required, they are not to be found. It is possible that the true reason of the shifters lying idle is to be found in the fact that they have been found unsafe. It would at least, in my opinion, be advisable for Mr. Walsh to satisfy himself that such instruments can safely be used in this country before any action is taken on his suggestion that they should be generally introduced.

4. The second proposal for the regular examination of belting and for inspections directed towards securing that it is kept on proper tension seems also to present some difficulties. In reporting on this point in July last, I supplied to Government the following opinion of the Presidency Factory Inspector:—

"As for the Inspectors examining every belt in a mill for tension and strength, I think it would be unworkable and foreign to their duties. In fact it would be encroaching on the duties of mill-managers, who, as a rule, are the best judges as to tension and strength of the belts in their mills."

I agree with the Presidency Inspector, who is supported in his opinion by the Chief Inspector of Factories, Bombay, that it would not be practicable to impose on Factory Inspectors the duty of testing belting. The present staff of technical inspectors in this Presidency is not sufficient to permit of such additions being made to their duties. It is possible that the proposal contemplates the inspection being made by mill-managers themselves, who would perhaps be bound by a rule to examine their belting for tension and strength at certain intervals. I would venture to bring to notice the extreme difficulty of enforcing such a rule. If an accident occurred, it would invariably be contended that the examination had been conducted according to rule, and unless the mere fact of a break or slip of the belt were to be held to be proof that the examination had not been made according to rule, it is difficult to see what additional security for the testing of belts would be introduced by such a rule. It seems doubtful that the infringement of the rule could safely be assumed in such a manner.

I need scarcely add that any draft rule on this point which Mr. Walsh can frame would be given consideration in this Presidency. But I am at a loss to understand how it could be satisfactorily enforced.

5. In my letter No. F.I.—82, dated 31st August 1894, I had the honour of laying before Government an account of the measures which have been taken by the Chief Inspector of Factories, Bombay, to minimise the risks of accidents in the replacing of belts. In inviting a reference to that communication, I have also the honour to draw attention to paragraph 26 of my Report on the working of the Factory Act during the year 1893, and to paragraph 21 of the Chief Inspector's Report attached to my Report for the year 1894. It will be seen that since the introduction of these special measures there has only been one serious accident due to the replacing of belting. In the case in question the operative was repairing a belt from the top of a machine. The belt caught the shafting and commenced to revolve and the man failing to release his hold of the belt was drawn up and painfully mutilated. It will be seen in this case that the accident was the result of the man's own carelessness in failing to let go his hold of the belt. That this has been the only accident with serious results during the last two or three years is, I venture to think, a strong indication that the precautionary rules at present in force in this Presidency are adequate and successful.

Pollo 389
20-6-96

No. 181, dated Calcutta, the 30th January 1896.

From—C. H. A. HILL, Esq., Under Secretary to the Government of India, Home Department,

To—The Secretary to the Government of Bengal, General Department.

WITH reference to the correspondence ending with the letter from this Department, No. ^{9-Judicial} 725, dated the 6th May 1895, on the subject of accidents in Factories arising from the adjustment of belting on machinery while in motion, I am directed to forward a copy of the papers noted in the margin, from which

Letter from the Government of it will be seen that no supplementary rules of the Bombay, No. 3, dated the 2nd kind suggested in paragraph 3 of the above-men- January 1896, and enclosure. tioned letter have been issued in the Bombay

Presidency, insisting on the necessity of having the belting regularly examined, for seeing that belting is kept at proper tension, and insisting on the use of belt-shifters. The adoption of the last suggestion is deprecated on the ground that belt-shifters have already been tried in the Bombay Presidency, and their use has been found more dangerous than the shifting of belts by hand under the precautions laid down in the existing rules. The issue of rules for the examination of belting is considered undesirable because it is apprehended that, for reasons given in the correspondence forwarded by the Bombay Government, such rules would be inoperative.

2. As the use of belt-shifters was suggested by Mr. C. A. Walsh, Special Inspector of Factories, Bengal and the North-Western Provinces and Oudh, I am to say that the Government of India will be glad to be furnished with any remarks which he may desire to offer on the present communication from the Government of Bombay on the subject.

No. 1359, dated Calcutta, the 31st March 1896.

From—C. W. BOLTON, Esq., Secretary to the Government of Bengal, General (Miscellaneous) Department,

To—The Secretary to the Government of India, Home Department.

I AM directed to acknowledge the receipt of your letter No. 181, dated the 30th January 1896, and its enclosures, on the subject of accidents in Factories arising from the adjustment of belting on machinery while in motion.

2. The opinion of Mr. C. A. Walsh, the Special Inspector of Factories in Bengal and the North-Western Provinces, is desired on —

(1) The use of belt shifters.

(2) The framing of a rule rendering the constant testing and inspection of belts compulsory.

As regards belt-shifters I am to say that they did not prove to be as efficient for replacing large belts as Mr. Walsh had anticipated, and, therefore, no rule has been framed by this Government enforcing their use in Bengal. Mr. Walsh is, however, still of opinion that they are suitable for small light belts, and does not accept the view that they are apt to cause accidents. He believes that if the man whose duty it is to replace belts, practises regularly with the belt-shifters, he would become an expert in replacing all small belts, which are frequently the cause of fatal accidents.

3. With regard to the constant testing and inspection of belts the rule quoted on the margin has been adopted in this Province.

"Every occupier of a factory shall regularly examine the belts and see that they are kept at proper tension." No objection has been taken to it in Bengal, but Mr. Walsh states that the words "proper tension"

have given rise to discussion in the North-Western Provinces, as it is impracticable to fix what the proper tension of a belt should be. The Lieutenant-Governor proposes to leave the rule as it stands. The regular examination of the belts is to be done by the Manager of the Factory, and not the Government Inspector, and it will rest with him to regulate the tension.

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